

## IMPACT OF DIGITALIZATION ON THE MEDIA SPHERE DEVELOPMENT

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**Abstract:** This article aims to identify the impact of digitalization on the development of the media sphere because of the requirements that digitalization places on the media education that journalism students receive in higher education institutions in Italy, Denmark, Great Britain, and Spain. To determine the prospects of the media sphere under the influence of the requirements of digitalization to the media education, a forecast was made, the results of which show that during 2021 – 2026 this indicator will tend to increase annually, as evidenced by the research conducted on the example of the University IULM, University of Bologna, Aarhus University, University of Kent, University of Sussex, Autonomous University of Barcelona.

**Keywords:** media sphere, digitalization, digital product, media specialist, higher education institution.

### 1 Introduction

Under the influence of digitalization there are changes in every sphere of activity, and in particular in the media spheres. Digitalization, affecting the development of the media sphere, causes a significant digital divide between countries. In addition, it is necessary to note the positive aspects of digitalization in the media sphere, namely the creation of new digital products and digital platforms. Thus, the development and effective functioning of media spheres are not possible without proper information support and the use of modern information and communication technologies in this process. The study of the main trends in the development of the media sphere has shown that the impact of digitalization on the sphere of traditional media, namely on print media, radio and television broadcasting, which have been replaced by new digital products and digital platforms, is quite significant. These changes can be seen in the 21st century. In today's environment, for example, access to media is largely enabled by the Internet, as well as by many other information and communication technologies.

Given these changes that occur under the influence of digitalization, the educational institutions that train future media students face the challenge of adapting the features of such training to the requirements of digitalization. In particular, we are talking about the fact that in the context of such training the requirements of digitalization, under the influence of which the development and formation of media spheres take place, must be laid down. Students as future media professionals must clearly understand their essence. In the prospect of carrying out their professional activities, a proper understanding of the impact of digitalization will enable them to work effectively in this field. It should be noted that such training will be no less important for the further development of the media sphere because with sufficient knowledge in the direction of the impact of digitalization on the development of the media sphere, it will be possible to foresee changes and determine the main directions of such development.

### 2 Literature review

Praprotnik (2016), considering the peculiarities of the development of digitalization, notes that digitalization significantly affects the social system, in particular, the media industry and the production of media products. Makarova et al. (2019) note that digitalization significantly affects the development of media literacy in the context of receiving media education. In turn, Kirillov et al. (2020) note that media spheres develop under the influence of digitalization and modern digital technologies. Hess et al. (2018) in their study consider

the manifestations of the impact of digitalization on the development of media spheres and note that changes in the media industry of all caused by the influence of digital technology, acquire new opportunities with each new digital revolution. Spann M. (2013) examines the characteristics of the impact of digitalization on the development of modern business models in the media industry. Jantunen et al. (2018) argue that the changes that have occurred in the media industry during the last years, mainly caused by the influence of digitalization, resulting in effective interaction between dynamic capabilities, operational changes, and the performance of media spheres.

Piskun (2017) examines the characteristics of the transition of the UK media spheres to digital format as part of the influence of this country's government program called Digital Britain. Based on the results of the research, the scholar notes that the digitalization of the media spheres is an inevitable process and significantly affects the development of the media sphere and society as a whole. Molchanova (2020) argues that digitalization contributes to the transformation of modern media spheres, under the influence of which an objectively new type of personality is formed, whose life takes place in a relatively new digital society. Such a personality, according to the scientist, is called the "information face. De Blasio et al. (2020) and Gholampour Rad, M. (2017) notes that in the context of the development of the media sphere, special attention should be focused on improving the managerial cognitive level of these spheres.

It should be noted that the modern development of media spheres, under the influence of digitalization, is characterized by the emergence of new areas of activity. For example, in the media sphere, thanks to digital technologies, virtual choirs, ensemble art in the online mode are increasingly becoming available to the potential consumer of such services (Gavkalova et al., 2020).

In the context of the development of the media sphere under the influence of digitalization, modern interfaces, the application of which in the media sphere will ensure better interaction between representatives of the media spheres and the consumers of media services, play an important role.

Summarizing the above, we note that the problem of the media sphere development in the context of the influence of digitalization on this process is not fully disclosed, so it requires more in-depth research, in particular in terms of the practice of determining the level of such influence.

This article aims to identify the impact of digitalization on the development of the media sphere because of the requirements that digitalization places on the media education that journalism students receive at institutions of higher education in Italy, Denmark, the UK, and Spain.

Researcher tasks. To achieve the purpose of the study, we will conduct a correlation and regression analysis between the variable of the level of requirements of digitalization to media education and the variable of the level of development of the media sphere under the influence of the requirements of digitalization to media education.

### 3 Materials and research methods

To reveal the purpose of the study, the following methods were used: 1) methods of theoretical analysis, synthesis, induction, and deduction – to present the theoretical and methodological aspects of media sphere development under the influence of digitalization; 2) methods of abstraction, measurement, hypothesis, observation, comparison, description, and generalization – to identify the impact of digitalization on media sphere development using the example of higher education institutions in Italy, Denmark, the UK, and Spain.

Some higher education institutions in Italy, Denmark, the UK, and Spain were selected for the study, using information from

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**4 Results**

To obtain the necessary data, we interviewed the heads of such higher education institutions as University IULM (*Università IULM, 2021*) (Italy), University of Bologna (*University of Bologna, 2021*) (Italy), Aarhus University (*Aarhus University, 2021*) (Denmark), University of Kent (*University of Kent, 2021*) (United Kingdom), University of Sussex (*University of Sussex, 2021*) (United Kingdom), Autonomous University of Barcelona (*Universitat Autònoma de Barcelona, 2012*) (Spain) regarding what level of demands digitalization places on media education and what level of development of the media sphere is influenced by the demands of digitalization on media education. Given the particular popularity of these institutions of higher education in European countries and the excessive employment of their heads, we received answers from all the heads.

We will present the obtained information in Table 1, and it should be noted that this is our input data for the correlation and regression analysis

Table 1 – Input data for the correlation and regression analysis

HEIs	Years					
	2015	2016	2017	2018	2019	2020
The level of digitalization requirements for media education						
University IULM	0,37	0,41	0,45	0,48	0,56	0,69
University of Bologna	0,48	0,51	0,55	0,58	0,64	0,74
Aarhus University	0,47	0,55	0,62	0,69	0,71	0,78
University of Kent	0,45	0,54	0,59	0,64	0,69	0,78
University of Sussex	0,48	0,56	0,61	0,68	0,71	0,72
Autonomous University of Barcelona	0,38	0,42	0,49	0,51	0,56	0,59
The level of the media sphere development under the influence of digitalization requirements for media education						
University IULM	0,71	0,74	0,79	0,81	0,84	0,85
University of Bologna	0,74	0,75	0,78	0,84	0,87	0,89
Aarhus University	0,72	0,73	0,79	0,81	0,83	0,84
University of Kent	0,69	0,71	0,73	0,76	0,77	0,79
University of Sussex	0,72	0,74	0,78	0,79	0,82	0,84
Autonomous University of Barcelona	0,68	0,72	0,74	0,78	0,78	0,79

Source: systematized by the authors based on information received from the heads of University IULM (*Università IULM, 2021*), University of Bologna (*University of Bologna, 2021*), Aarhus University (*Aarhus University, 2021*), University of Kent (*University of Kent, 2021*), University of Sussex (*University of Sussex, 2021*), Autonomous University of Barcelona (*Universitat Autònoma de Barcelona, 2012*)

During the conducted correlation analysis, we obtained the corresponding values of the correlation coefficient and regression coefficient (Table 2 and Appendix Table 3 of September). We qualitatively assessed the density of the relationship between the variable of the level of digitalization requirements to the media education and the variable of the level of development of the media sphere under the influence of digitalization requirements to the media education using the Cheddock scale.

Table 2 – Results of correlation analysis

HEI	Correlation coefficient	Correlation
University IULM	0,897475	straight and high
University of	0,942937	straight and very high

Bologna		
Aarhus University	0,971855	straight and very high
University of Kent	0,984961	straight and very high
University of Sussex	0,966658	straight and very high
Autonomous University of Barcelona	0,954072	straight and very high

Source: calculated by the authors

Based on the correlation coefficient analysis, it was found that the correlation between the level of digitalization requirements for media education and the level of development of the media sphere under the influence of digitalization requirements for media education is high and even very high and direct. Such statements are based on the results obtained on the example of such higher educational institutions as the University IULM, University of Bologna, Aarhus University, University of Kent, University of Sussex, Autonomous University of Barcelona. Consequently, the increase in the level of digitalization requirements for media education leads to an increase in the level of development of the media sphere under the influence of digitalization requirements for media education on the example of the University IULM by 89.74%, University of Bologna – by 94.29%, Aarhus University – by 97.18%, the University of Kent – by 98.49%, University of Sussex – by 96.66%, Autonomous University of Barcelona – by 95.40%.

Analyzing the results of the regression coefficient, it was found that the change in the level of development of the media sphere under the influence of the requirements of digitalization to media education affects the change in the level of requirements of digitalization to media education. Thus, on the example of the University IULM, the change in the level of development of the media sphere under the influence of the requirements of digitalization to the media education causes a change in the level of requirements of digitalization to the media sphere by 80.54%, on the example of the University of Bologna – 88.91%, on the example of Aarhus University – 94.45%, on the example of University of Kent – 97.01%, on the example of the University of Sussex – 93.44% and on the example of the Autonomous University of Barcelona – 91.02%.

To determine the prospects of the media sphere development under the influence of digitalization requirements to media education, we will conduct a forecast, which we will present in Figure 1 – Figure 6 of June, using the trend line in Table 2.

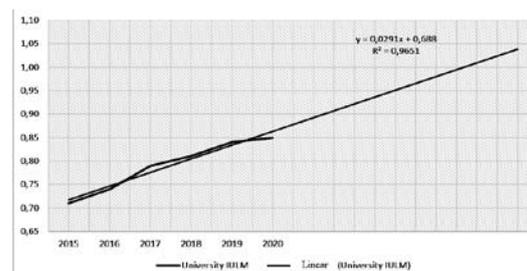


Figure 1 – Forecast of the media spheres development level under the influence of digitalization requirements to medical education using the trend line on the example of University IULM

Source: calculated by the authors

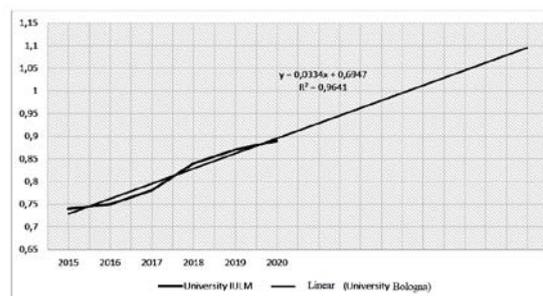


Figure 2 – Forecast of the media spheres development level under the influence of the requirements of digitalization to medical education using the trend line on the example of the University of Bologna  
Source: calculated by the authors

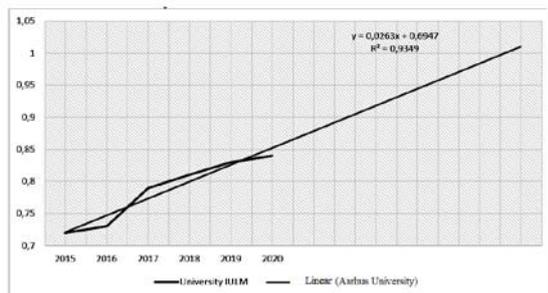


Figure 3 – Forecast of the media spheres development level under the influence of the requirements of digitalization to medical education using the trend line on the example of the Aarhus University  
Source: calculated by the authors

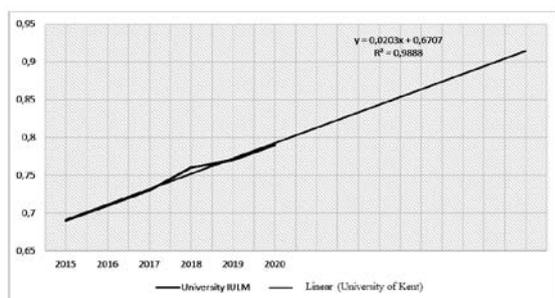


Figure 4 – Forecast of the media spheres development level under the influence of the requirements of digitalization to medical education using the trend line on the example of the University of Kent  
Source: calculated by the authors

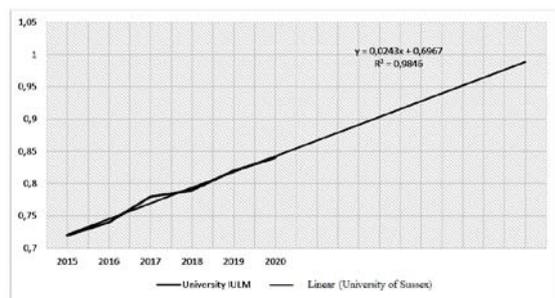


Figure 5 – Forecast of the media spheres development level under the influence of the requirements of digitalization to medical education using the trend line on the example of the University of Sussex  
Source: calculated by the authors

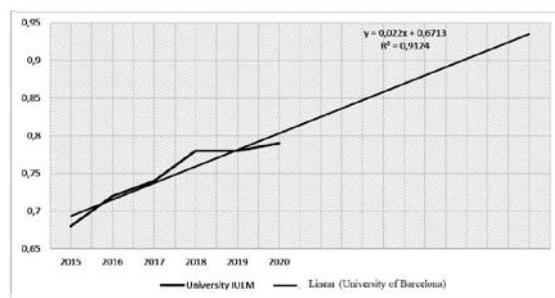


Figure 6 – Forecast of the media spheres development level under the influence of the requirements of digitalization to medical education using the trend line on the example of the Autonomous University of Barcelona  
Source: calculated by the authors

medical education using the trend line on the example of the Autonomous University of Barcelona  
Source: calculated by the authors

Analyzing the forecast data of the media spheres development level under the influence of digitalization (Table 10), we can say that during the period 2021–2026, this indicator tends to increase rapidly, as the research conducted on the example of the University IULM, the University of Bologna, the Aarhus University, the University of Kent, the University of Sussex, and the Autonomous University of Barcelona.

Table 10 – Forecast values of the media spheres development level under the influence of the requirements of digitalization to medical education

HEI	Years					
	2021	2022	2023	2024	2025	2026
University IULM	0,89	0,92	0,95	0,98	1,01	1,04
University of Bologna	0,93	0,96	1,00	1,03	1,06	1,10
Aarhus University	0,88	0,90	0,93	0,96	0,98	1,01
University of Kent	0,81	0,83	0,85	0,87	0,89	0,91
University of Sussex	0,87	0,89	0,92	0,94	0,96	0,99
Autonomous University of Barcelona	0,83	0,85	0,87	0,89	0,91	0,94

Source: calculated by the authors

Thus, this analysis suggests that the digitalization influence level on the media spheres development is quite substantial, as evidenced by the results of research conducted by the University IULM, the University of Bologna, the Aarhus University, the University of Kent, the University of Sussex, and the Autonomous University of Barcelona.

### 5 Discussion

In the course of our research, we found that the problem of the impact of digitalization on the development of the media sphere is very relevant and researched among many scholars. Thus, according to the studies of Praprotnik (2016), Makarova et al. (2019), Kirillov et al. (2020), Hess et al. (2018), Spann M. (2013), and Jantunen et al. (2018) we found that due to the impact of digitalization on the media spheres, the media industry is developing at a rapid pace, new media products (digital products) are being developed and actively introduced to the market. It was found that digitalization also dictates new requirements for the development of media education, in particular in the direction of media literacy. In turn, Piskun (2017) and Molchanova (2020) argue that digitalization creates the right conditions for the transformation of modern media spheres into a new digital space.

However, we propose to identify the impact of digitalization on the development of media spheres because of the requirements that digitalization puts on the media education that students – future journalism professionals receive in higher education institutions in Italy, Denmark, Britain, and Spain. In the course of revealing such influence, a correlation and regression analysis was carried out, the results of which showed that the change in the level of development of the media sphere under the influence of the requirements of digitalization to the media education affects the change in the level of requirements of digitalization to the media education. That is, as the value of the correlation coefficient shows – an increase in the level of requirements of digitalization to media education leads to an increase in the level of development of the media sphere under the influence of requirements of digitalization to media education on the example of University IULM by 89.74%, University of Bologna – by 94.29%, Aarhus University – by 97.18%, University of Kent – by 98.49%, University of Sussex – by 96.66%, Autonomous University of Barcelona – by 95.40%.

## 6 Conclusion

According to the results of the researches, it is reasonable to conclude that the media spheres under the influence of digitalization are moving to a relatively new type of development. Thus, the traditional areas of activity carried out in the media sphere under the influence of digitalization are gradually replaced by new areas in which the use of information and communication and digital technology is an invariable component of development. Given that, we note that, as a consequence, to replace the traditional services provided in the media spheres come new digital services, the provision of which is often associated with the use of the Internet.

The study proposes to identify the impact of digitalization on the development of the media sphere because of the requirements that digitalization places on the media education that journalism students receive in higher education institutions in Italy, Denmark, Great Britain, and Spain. According to the results of the correlation and regression analysis between the variable of the level of requirements of digitalization to media education and the variable of the level of development of the media sphere under the influence of the requirements of digitalization to media education, it was found that an increase in the level of requirements of digitalization to media education leads to an increase in the level of development of the media sphere under the influence of requirements of digitalization to media education, that is, changes in the level of development of the media sphere under the influence of requirements of digitalization to media education affects changes. This conclusion is evidenced by the results carried out on the example of the University IULM, University of Bologna, Aarhus University, University of Kent, University of Sussex and Autonomous University of Barcelona.

In the perspective of the following, it is expected to reveal the impact of digitalization on the development of the media sphere in the context of the vision of such a process by media specialists, as subjects carrying out professional activities in this direction of activity

## Literature:

1. Aarhus University (2021). Available at: <https://international.au.dk/>
2. De Blasio, E., Kneuer, M., Schünemann, W., & Sorice, M. (2020). The Ongoing Transformation of the Digital Public Sphere: Basic Considerations on a Moving Target. *Media and Communicatio*, 8(4), 1–5. Available at: <https://doi.org/10.17645/mac.v8i4.3639>.
3. Jantunen, A., Tarkiainen, A., Chari, S., & Oghazi, P. (2018). Dynamic capabilities, operational changes, and performance outcomes in the media industry. *Journal of Business Research*, 89, 251–257.
4. Gavkalova, N., Lola, Y., Dzenis, V., & Dzenis O. (2020) Measuring the Consumers Information Skills in A Digital Supply Chain. *Estudios de Economía Aplicada*. 4(38), 11p.
5. Gholampour Rad, M. (2017). Disruptive innovation in media industry ecosystem and need for improving managerial cognitive capabilities in polymediation era. *Cogent business & management*, 4(1). Available at: <https://doi.org/10.1080/23311975.2017.1352183>
6. Hess, T., & Constantiou, I. (2018). Introduction to the special issue on «digitalization and the media industry». *Electronic Markets*, 28(1), 77–78. Available at: <https://doi.org/10.1007/s12525-017-0282-1>
7. Kirillova, N. B., Tomyuk, O. N., & Dyachkova, M. A. (2020). Educational segment of modern media market: features and trends in digitalization. *Economic consultant*, 30(2), 48–61. Available at: <https://doi:10.46224/ecoc.2020.2.5>
8. Makarova, E. A., & Makarova, E. L. (2019). The Functional model of using visualization and digitalization for media literacy development in media education process. *Medyaobrazovanye*, 59(4), 547–556. Available at: <https://doi.org/10.13187/me.2019.4.547>
9. Molchanova, O. I. (2020). Digital society in the context of transformation of the modern media sphere. Functional aspects of intercultural communication. *Functional aspects of intercultural communication*. Translation and interpreting issues,

743–748. Available at: <https://doi.org/10.22363/2686-8199-2020-7-743-748>

10. Praprotnik, T. (2016). Digitalization and new media landscape. Peer-reviewed academic journal *Innovative Issues and Approaches in Social Sciences*, 9(2), 85–99. Available at: 1855-0541.QS Quacquarelli Symonds Limited (2021). Available at: <https://www.topuniversities.com/programs/europe/communication-and-media-studies?region=>
11. Piskun, G. A. (2017). State strategies of digitalization of the Great Britain media sphere: «Digital Britain». *Vek ynformacyy*, 1, 316–375.
12. Spann, M. (2013). Interview with Jörg Lübcke on «Digitalization of Business Models in the Media Industry». *Business & Information Systems Engineering*, 5(3), 199–201. Available at: <https://doi.org/10.1007/s12599-013-0269-1>
13. *Universitat Autònoma de Barcelona* (2021). Available at: <https://www.uab.cat/web/universitat-autonoma-de-barcelona-1345467954774.html>
14. *Università IULM* (2021). Available at: <https://www.iulm.it/en/home>
15. *University of Bologna* (2021). Available at: <https://www.unibo.it/en>
16. *University of Kent* (2021). Available at: <https://www.kent.ac.uk/locations/canterbury>
17. *University of Sussex* (2021). Available at: <https://www.sussex.ac.uk>

**Primary Paper Section: A**

**Secondary Paper Section: AJ**