

# *The Development of Digital Media in Post-Covid-19 Era*

Runze Yang<sup>1,a,\*</sup>

<sup>1</sup>*School of Advanced Technology, Xi'an Jiaotong-Liverpool University, Suzhou, Jiangsu, 215000, China*

*a. Runze.Yang21@student.xjtlu.edu.cn*

*\*corresponding author*

**Abstract:** Since the beginning of 2020, the world has been affected by the COVID-19 epidemic, which has brought many problems, such as economic and other aspects. These problems have lasted for a long time, and until now, most countries have not come out of the shadow of the new pavilion epidemic. This paper focuses on the development of digital media in the post-COVID-19 era. The purpose of this study is to explore whether the impact of COVID-19 on digital media is serious. Through some case studies, the specific performance of digital media in the three periods before and after the outbreak of COVID-19 will be compared, to draw a series of conclusions. Moreover, the development of digital media is analyzed from two aspects economy and application. Finally, it is concluded that COVID-19 has a fundamental inhibitory effect on the development of digital media, but at the same time, it has a certain promotion effect on the application field.

**Keywords:** COVID-19, Digital media, Economy

## **1. Introduction**

Due to the rapid development of computer science, the popularization of big data and artificial intelligence technology has accelerated the development of digital media [1]. However, due to the impact of the COVID-19 pandemic, all walks of life must stop offline work and turn to online work, which provides a new opportunity for the development of digital media. For example, in the pottery industry, people cannot enter the physical space to learn knowledge about pottery. Therefore, people begin to try to use theories such as digital materiality to create a new way of learning [2]. Since digital media is a popular aspect of this era, it is also a medium that fits the current era very well. Therefore, it can be argued that the development of digital media represents the development of this era from some aspects, which is why this paper chooses to study this aspect. This paper specifically discusses some changes in the three periods before and after the outbreak of COVID-19 and some impacts on the economy. A case study approach will be adopted to discuss this topic. The research of this paper will summarize the changes of the three periods of COVID-19 to a certain extent and will provide some convenience for researchers studying digital media in the future.

## **2. Development of Digital Media**

### **2.1. Before COVID-19**

Since the 1970s, the increasing popularity of computer science and the emergence of various digital media such as digital language have promoted the birth and development of digital media technology. Digital media has many characteristics, such as high efficiency, interactivity, synthesis, and so on [3]. These characteristics of digital media have prompted the generation of a series of social software such as WeChat, as well as some forms of entertainment such as movies. Therefore, the development prospects of digital media mainly focus on three aspects: the business field, the news media field, and the film and television production field. For example, short video platforms such as Douyin have been popular in recent years, which combine the interactivity and comprehensiveness of digital media technology. People can use it as entertainment software to watch short videos to kill time, or as a social software to chat with others, and now as a shopping software. Use it to buy what you need. This is a very successful use of digital media technology to create software. However, before the outbreak of COVID-19, although China's digital media had produced a series of excellent products, the development prospect of China's digital media was not clear, which may be related to the late development of China's digital media technology compared with other countries, and also to some domestic and foreign environments. For example, in the film industry, because the domestic start is late, the development time is far less than that of foreign countries, and a large number of excellent foreign works are introduced into the domestic film market every year, which affects the domestic film market, resulting in the income of many domestic films cannot meet expectations, and the number of people engaged in the film industry will decline over time. It means that the development of the domestic digital media industry has received certain restrictions. This is one of the reasons hindering the development of the digital media industry.

### **2.2. During COVID-19**

Since the end of 2019, a COVID-19 pandemic has started around the world. For various reasons, each country is governed differently. Some Western countries choose to leave it alone, while some countries like China choose to tackle the root cause and not give up on every citizen who gets COVID-19. Because of COVID-19, people have to start working, studying, and so on from home, which has led to the development of another use of digital media, that is live classes. This is different from the traditional form of live broadcast because the teacher must ensure that every student is listening to the class. Therefore, every student in this virtual classroom needs to open their own camera, which provides some difficulties for the technical team. For example, the developers of live broadcast software such as Dingding are keeping in front of the computer day and night, constantly updating the quality of the software to ensure the quality of the teachers and students, and they are constantly developing new functions. Therefore, COVID-19 has promoted the development of digital media to a certain extent, making digital media more comprehensive. However, the epidemic has also hindered the further development of digital media to a certain extent. COVID-19 will cause many people to die, and some news media will report this relatively negative news, while some governments don't want this negative news, because it will make people disappointed with them. So, the government will ask the news media to make up some false news and so on. This hinders the development of digital media in terms of news media.

### **2.3. After COVID-19**

With the end of COVID-19, the development of the whole world seems to be back on track, and the economy and other aspects are recovering rapidly, but digital media has encountered a big difficulty.

In the past decade, suicide and self-harm among teenagers have reached a crisis level in the United States. Some experts attribute part of the reason to digital media because the current social information is more transparent. This means that some teenagers with serious psychological problems can also use digital media to query some negative information, which will cause their psychological problems to become more and more serious. One study showed that between 2012 and 2016, 31 percent of teens with mental health problems were hospitalized for mental illness because of digital media. But that figure soared to 42.9 percent during the pandemic [4]. So it can be argued that after the pandemic is over, most people will become dependent on digital media because of some habit issues, so there is a chance that this number will increase. This is a drawback of digital media. If we want to develop digital media better, we must find ways to overcome these drawbacks and further improve digital media.

### **3. The Impact of Covid-19 on Development of Digital Media**

#### **3.1. Economic Aspect**

Against the backdrop of COVID-19, countries around the world are experiencing economic decline in all aspects. The same is true in digital media, because everyone is losing their lives because of this dangerous coronavirus, so most people are at home, and this is causing some companies to not be able to function properly, the owners of the companies are not able to make money, and in order to reduce the cost of operating the companies, the owners have to reduce the number of employees. That has left workers at home without pay. This is true for companies and even more so for countries, where some trade between countries and major sources of the domestic economy such as tourism have been shut down because of the pandemic. However, part of the idle people at home are young people, who are exposed to digital media every day, which stimulates their interest in digital media. In some countries in Africa, most young people spend a lot of time on digital media such as social media, play digital games, they learn new skills, some developers have noticed this situation [5]. Therefore, some creative economy jobs have begun to recruit young people, provide jobs for them, and take advantage of their love for digital media and other aspects, constantly develop the digital media and other aspects of the country, promote the development of the creative economy of the country, thus driving the country's economy, and prevent the country's economy from suffering more losses due to the impact of COVID-19. Moreover, in the context of today's society, young people will come into contact with digital media earlier, and they will become more and more proficient in the control of computers. Some educators will also deliberately guide students to learn knowledge about computers and other aspects, so the economic situation of digital media and other aspects will occupy the majority position in the contemporary economic system.

#### **3.2. Other Aspects**

Previously, digital media was only developed in entertainment and other fields. Due to COVID-19 and other reasons, digital media technology began to be continuously developed in medical services. This is because the number of hospitalized people has greatly increased, and gradually the hospital staff is not enough to timely lead some people who do not often come to the hospital to the departments they need to see a doctor. For example, in some hospitals in Indonesia, some guidance work is not well carried out [6]. At this time, some hospitals began to introduce digital media, using electronic devices to guide patients to the department they want to go to. For example, an electronic screen is set up in the hospital lobby, and users can provide some of their symptoms to it. The electronic screen will tell people which department to go to see a doctor according to its own algorithm and the information in the database. It will also provide people with a registration service, and tell them how to walk from here to this department. These electronic devices greatly reduce the

workload of staff and make it more convenient for patients to see a doctor. It also reduces the risk of hospital staff getting sick from patients. When taking medicine, patients only need to enter their own case code on the machine, the system will automatically identify, and people need to send the list of drugs to the staff in the pharmacy, the staff in the pharmacy will fill the medicine, through the conveyor belt, will send people's drugs to the designated location, people only need to go to the designated location to wait for the medicine. Digital media has been introduced into hospitals, reducing patient-doctor contact and enabling automation.

### 3.3. Case Analysis

COVID-19 still has a certain impact on the development of digital media. Due to the global economic recession, some researchers do not have sufficient funds to upgrade the current digital media. Moreover, COVID-19 has caused many people to lose their lives, so people choose to hide at home, and no one is willing to risk their lives on the front line to study digital media. This has fundamentally inhibited the development of digital media. However, from another point of view, although digital media has not been updated in terms of version and so on, there is still a wide range of development in the application field. As mentioned above, the development of hospitals, but also the development of banks, airports, and other places. The introduction of digital media into these industries has provided convenience for People's Daily life, reduced the workload of staff, improved their work efficiency, and achieved a certain degree of automation. Moreover, digital media has been introduced into the campus for a long time. Teachers can use multimedia in the school to enrich students' classrooms, make teaching more interesting, and attract students' attention. However, this also has some disadvantages. The introduction of digital media has reduced the need for employees in some companies, so some unskilled jobs, such as hospital guidance staff, will be replaced by these digital media. Some of the jobs as teachers in tutoring institutions may be replaced, because students can now use mobile phones and other media for online learning, without the need to go offline to make up lessons with teachers face-to-face. Some offline tutoring institutions will face the risk of closure if they do not transform into online teaching. In general, the development of digital media has advantages and disadvantages.

## 4. Conclusion

This paper mainly studies the development of digital media before and after the outbreak of COVID-19, first discusses the development of digital media in the three stages of COVID-19, and then discusses the development of digital media from some specific aspects, such as economy and application fields. It is finally concluded that COVID-19 has a certain inhibitory effect on the field of digital media fundamentally, but has a certain promoting effect on the application field, which has automated some industries, enriched People's Daily lives, and provided convenience for people's lives. The research content of this paper is somewhat one-sided. It studies the development of several aspects in the field of digital media, which is not comprehensive. Moreover, it only uses the research method of case analysis, and the conclusion is not very convincing. Future research could focus on other aspects that have not been studied.

## References

- [1] Zhao, W., Zhang, S., & Li, X. (2023). *Impact of virtual reality technology on digital media in the context of big data and artificial intelligence*. *Journal of Computational Methods in Sciences & Engineering*, 23(2), 605–615. <https://doi-org-s.elink.xjtlu.edu.cn:443/10.3233/JCM-226611>
- [2] O, B. C. (2023). *COVID, clay, and the digital: The role of digital media in pottery skill development during the COVID-19 pandemic in Britain*. *Journal of Material Culture*. <https://doi-org-s.elink.xjtlu.edu.cn:443/10.1177/13591835231212283>

- [3] Li, Z., Zhang, J., & Zhao, X.(2020). *The development of digital media technology and its application in the fields of radio and television. Satellite TV and broadband multimedia / Satellite TV & IP Multimedia*, 12, 6.
- [4] Becker, T. D., Leong, A., Shanker, P., Martin, D., Staudenmaier, P., Lynch, S., & Rice, T. R. (2024). *Digital Media-related Problems Contributing to Psychiatric Hospitalizations Among Children and Adolescents Before and After the Onset of the COVID-19 Pandemic. Child Psychiatry & Human Development*, 1–8. <https://doi-org-s.elink.xjtlu.edu.cn:443/10.1007/s10578-024-01670-w>
- [5] Muchira, J. M. (2023). *Digital Media and Creative Economy Potential on Youth Employment in Kenya: A Grounded Theory Perspective. Information and Learning Sciences*, 124(5–6), 168–193. <https://doi-org-s.elink.xjtlu.edu.cn:443/10.1108/ILS-03-2022-0043>
- [6] Rahmawati, I. N., Monitasari, I., Putri, D. H., Arizda, D., Pricila, F., Rosyidawati, F., & Sejati, B. L. (2023). *The use of web-based digital media to enhance admission orientation for patients in the hospital. Healthcare in Low-Resource Settings*, 11(S1). <https://doi-org-s.elink.xjtlu.edu.cn:443/10.4081/hls.2023.11174>