

# Chapter 15

## A Detailed Exploration of Artificial Intelligence and Digital Education and Its Sustainable Impact on the Youth of Society



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**Abstract** Artificial intelligence is a software-based modern technology that helps to improve the communication system. Therefore, by using artificial intelligence some digital applications are launched for education digitally. Thus, the use of artificial intelligence and digital applications for education has increased during the COVID-19 pandemic situation. As all the institutions, colleges, and schools were closed for a certain time due to the pandemic situation; the stoppage of studies was impacting the productivity of the students. Therefore, the digital applications and artificial intelligence help the students to continue their education through those applications. Apart from that, these applications and systems for digital education impact the youth of the society largely. The students have to stay in their homes and they can use these digital applications to continue their education and this impacts their communication skills. Along with that, there are a lot of beneficial sites of artificial intelligence and sustainable impacts on the youth of the society. On the other hand, the purpose of this particular research study is to analyse the sustainable impacts

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of artificial intelligence and digital applications of education on the youth of the society. Artificial intelligence has a great impact on the education system. Therefore, the advantages and disadvantages of the uses of artificial intelligence in education are analysed in this particular research study. Furthermore, the researcher has used several types of methods and techniques for collecting and analysing more data and information about the particular research topic. Thereafter the researcher has used the secondary methods and sources for collecting data about artificial intelligence and its impacts on youth of the society. Apart from that, the research has used the qualitative techniques for analysing all the collected data in this particular research study in a proper way.

## **15.1 Introduction**

In contemporary times, Artificial intelligence (AI technology) as a software has helped in fighting and enhancing the field of education. In both business and education AI currently remains high in demand and has the opportunity to sustain for the long term. Due to the constant development of the world, modifying technology is always acceptable and beneficial in increasing knowledge as well as skill. Mainly in the educational field, the emergence of every new technology has proved vital for supporting society and the economy. The digital education action plan is an inclusive, high-quality, and accessible digital platform of learning. It is considered as an important approach in developing learning areas for an individual student [1].

AI technology has proved its impact on social media and online games. Recent works have concentrated on the development of digital technology frameworks for educational organizations along with educators. Due to the enhancement of higher education more effectively the majority of educational sectors are involved in the adoption of Artificial Intelligence in their education process. It has been mentioned by several researchers that developing an effective future technological framework can help in modifying both personal and social development. In this study, the impact of Artificial Intelligence and digital education on the youth of the society will be discussed to understand its value to establish a better future opportunity in this competitive world [2].

## **15.2 Literature Review**

### ***15.2.1 Concept of Artificial Intelligence (AI) and Digital Education***

Artificial intelligence is a technological machine that is capable of understanding different languages, thinking individually, and solving problems. Basically, it is

a computer system that properly organizes intelligent beings to provide better outcomes. It is managed by following a particular scientific discipline and it has three hierarchically connected levels regarding human behaviour. As stated by Yigitcanlar et al. [12], the ability to change society can help in bringing revolution and provide a better structure. As learning is a highly significant element in this current provision, AI technology can provide a great support in this area [3–9].

UNESCO, which is the International advisory Board, also supports AI software in leading the educational development [11]. UNESCO has declared near about five areas where AI can be implemented in the educational field. It includes development of value, empowers teaching, educational management, learning assessment, and learning opportunity. As argued by Pham et al. [10], getting high quality and accessible knowledge regarding education, digital education is recognized as most supportive. Accompanied with multimedia along with mobile phones, the education process can be sustained properly whilst staying long distances [10].

### ***15.2.2 Impact of Artificial Intelligence (AI) and Digital Education on the Youth of the Society***

In the context of education of this current decade, education has become more challenging and competitive. At this moment, AI technology adoption in the educational field has been considered than any other approach. As per the view of Mhlanga [9], AI has shown immense potential in all walks of life even in education by supporting both teachers and students. Accompanied with development data, educational quality, the entire educational system can be updated with the help of AI technology [11] (Fig. 15.1).

Based on *The New Education Policy 2020*, AI adoption in the education process has made **6.6%** development in India [2]. Personalized learning and predictive quality is capable of maintaining due to with AI technology in the education system. Utilizing digital platforms within AI software has become more flexible in this recent decade. As argued by Yu [13], due to this pandemic situation, delivering long distance education through digital platforms has proved easy and profitable within AI involved in the education program. The youth of this generation can get a better experience of digital platforms to learn with artificial intelligence technology [12] (Fig. 15.2).

## **15.3 Methodology**

Due to conducting a particular research approach, it is important to select an appropriate method. Similarly, to evaluate the ideology of the entire relevant collected data, the researcher has identified a ***positivism research philosophy*** will be a better approach. As utilizing a positivism research philosophy can support a research topic

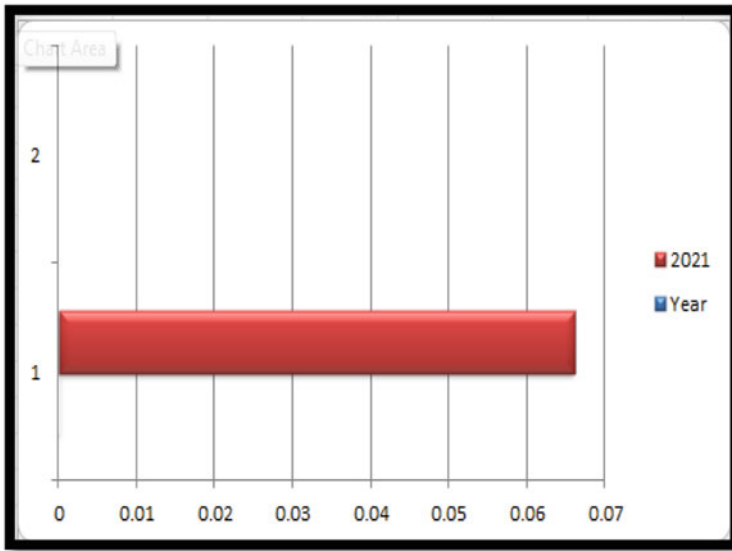
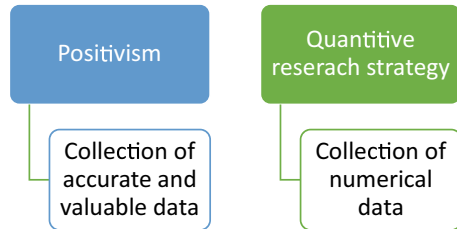


Fig. 15.1 Educational development by adopting AI. Source Influenced by Mhlanga [9]

Fig. 15.2 Research methodology. Source Self-created

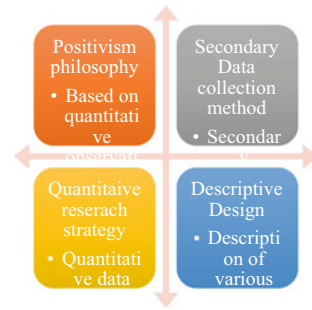


to develop its quality and reliability this philosophy will assist the researcher in a correct way. As proposed by Fuchs [5], this philosophy can help in gaining a better knowledge and understanding regarding the topic of artificial intelligence and digital platforms.

In addition to this, in order to legitimize the research objectives, the research study has used a *descriptive research design* to explain the research goals and objectives. After justifying the research objectives, the possibility of getting appropriate research outcomes has been increasing a lot. As stated by Akyol and Ustaoglu [1], accompanied with justified research objectives the research will be capable of adopting a descriptive research design to make it approachable and understand the appropriate relationship between different study variables [13].

Apart from this, the researcher has selected a *quantitative research strategy* to conduct the research further forward. According to Li et al. [8], it is capable of delivering the aspect to recognize the appropriate variables amongst various criteria

**Fig. 15.3** Justification of selecting methodology.  
*Source* Self-created



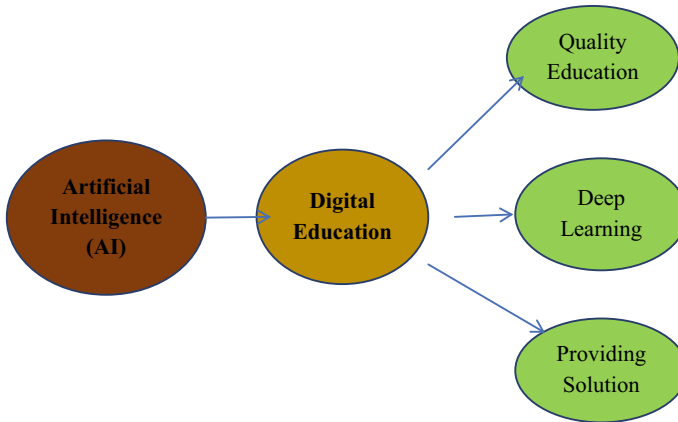
to make the selected study more suitable and authentic. In this scenario, to lead with artificial intelligence in the digital education system, this strategy can provide a potential shape to figure out the accurate data and information.

Therefore making a study valuable, it is important to select an effective data collection method that will help the study to be developed and perfect. In this scenario, the researcher has chosen a *secondary quantitative data collection method* to collect valid and relevant data to get better outcomes. As observed by Hsu [7], this method is helpful in gathering relevant information and knowledge to mitigate the existing problems. The researcher has collected data and information related to AI technology and digital education systems depending on books, journals, newspapers, articles, and websites. In addition, as it is capable of reducing time and cost, the researcher has found this data collection method as helpful (Fig. 15.3).

## 15.4 Result and Discussion

### 15.4.1 Online Learning is a Part of Digital Education

Accompanied with currently available technologies, it has been understood simply that a digital platform is the only option that can help in the forward-thinking process and develop the education system. The digital platform signifies the system that is included in the electronic systems, tools, and devices. Utilizing technology when the education quality can be improved and modified, it is called the digital education system. As opposed by Blayone et al. [4], it helps to broaden and increase across all curriculum learning areas. Due to the COVID-19 pandemic situation, the demand for digital education has become highly significant. It is the way to make forward to gain knowledge and learning within a flexible way and help to solve the issues that occur in the education system. Thus, this AI technology remains expensive for many institutes; it can help in establishing a strong support by providing a better online experience.



**Fig. 15.4** Impact of AI technology on the youth of society. *Source* Self-created

### ***15.4.2 Future Opportunities with Artificial Intelligence***

The majority of sensible educational sectors have partnered with artificial intelligence in order to recognize the lessons successfully. As the students have to stay in their homes due to the COVID-19 situation, they can use these digital applications to continue their education and this impacts their communication skills. As observed by Bachtiger et al. [3], it has a lot of advantages in the criteria of artificial intelligence and it impacts on the youth of the society. The utilization of artificial intelligence and digital applications has increased in a wide range during the pandemic situation. As almost all schools and colleges are closed for a certain time, this has a great opportunity to sustain for a long-term issue. Along with this, it is available for 24 × 7 which is identified as another positive element for its sustainability (Fig. 15.4).

## **15.5 Recommendations and Conclusion**

### ***15.5.1 Recommendations***

Depending on the entire study, it can be recommended that by adopting artificial intelligence software, the quality and value of education can be developed. Recognizing the educational risk, the implementation of AI technology can be beneficial by providing a potential solution. As opined by Goyal et al. [6], by boosting the transparency in the education system the digital platform can play a supportive role in providing education. In the activity of implementing AI technology in the digital platform, it needs to adopt training regarding the new artificial intelligence society.

In addition, building bridges and increasing communication, the development of artificial intelligence, and the digital education system can be executed.

### 15.5.2 Conclusion

Based on the entire study, it can be stated that during COVID-19 pandemic situation, the digital education system has occupied a wide space in the education system. This approach will be beneficial within the collaboration of Artificial Intelligence (AI technology), as it is an effective software that is capable of handling several issues individually. Moreover, this study will be helpful for the researchers to understand both the advantages and disadvantages of Artificial intelligence in the digital education system to balance educational satisfaction.

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