

Digital Literacy in Education and Humanities under the Covid-19 Pandemic: A Preliminary Identification of Challenges and Opportunities

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Abstract

The COVID-19 pandemic broadly presents a series of crucial impacts on human life. COVID-19 is transforming the fundamental dimensions of education and humanities. Digitization and technology are new demands in educational practice under COVID-19. Therefore, digital literacy is an absolute prerequisite in this new era of educational practice. This paper identifies explicitly and reflects on the opportunities and challenges of digital literacy from education and humanities in the setting of the COVID-19 pandemic. However, this paper is only limited to a general overview of previous studies on digital literacy concerning the impact of COVID-19 in education and humanities.

Keywords

the covid-19; digitalization; literacy; education; humanities; students; educators



I. Introduction

The COVID-19 pandemic has just initiated a global downturn in our history (Rogoff, 2020). In the past, for many reasons, people have divided each other. The COVID-19 pandemic shows that this condition is becoming worse. The World Health Organization (WHO) announced COVID-19 as a global public health emergency of international concern on January 30, 2020; then, the organization declared COVID-19 a pandemic on March 11, 2020.

Furthermore, we are witnessing a painful experience in the education and humanities fields (Hebebcı, Bertiz & Alan, 2020). Many researchers, analysts, institutions, and think-tank organizations believe that the COVID-19 pandemic continuously creates massive disruption in this field. COVID-19 directly affected nearly 1.6 billion students in more than 190 countries and territories on all continents. Many schools and campuses worldwide are still closed (Bozkurt et al., 2020).

Before the pandemic disrupted our lives, the first day of school and college was the most memorable time for our students (Lee, 2020). However, in these last two years, our children and students have lost their first day to experience the school and campus situation like many years before this pandemic. The measurement of the educational and humanities approach applied for centuries is now changing (Pather et al., 2020).

In challenging the massive changes under the COVID-19 pandemic, the education and humanities sectors, as one of the most suffering aspects of our current life and situation, need to build synergy (Zabaniotou, 2020). The education sector must be solid and united by encouraging the fulfilment of the digital needs of teachers and students (Myung et al., 2020). This step should be taken decisively without compromising the quality and academic standards of the curriculum, teaching, and research in our schools and campuses.

In this unprecedented time in today's history, we as educators and students have undoubtedly made essential decisions in between with this question; first, are we maintaining our safety by moving away from each other? Second, will we expand our interconnections as sources of our strength in challenging these rapid changes during the pandemic? We still have the opportunity to prepare for the future by leaving behind many memories of the past. In particular, in education, our task is not to rebuild all connected systems but to reshape the structure of learning, teaching, and research processes, then build relationships among related educational practitioners. (Aristovnik et al., 2020).

Today the epidemiologists tell us two brief opinions. First, the COVID-19 pandemic will continue to occur in waves; this will disrupt our daily lives. This pandemic affects our life in short-term, middle-term, and long-term phases. This statement can create fear. Second, the pandemic that brings uncertainties into our daily lives presents many opportunities for the near future (Settersten et al., 2020). This pandemic shows us two sides of one fact; first, the loss of a connection between people on the one hand, and the second, the need to transform the meaning of the social relationship on the other hand (Walsh, 2020). The COVID-19 pandemic is also understood as momentum for meaning-making concerning fundamental aspects (Boin & Hart, 2020).

The paper is a preliminary analysis based on a general review of studies and reports related to digitalization during the COVID-19 pandemic, focusing on digital literacy challenges in education and humanities. Therefore, this paper is not limited to one specific locus. This paper will be divided into the following subsections. The first part deals with the introduction. The second subsection will describe the situation of education during a pandemic. The third part will analyze technology/digitization during the COVID-19 pandemic. The fourth part will explain digital literacy challenges to education and humanities during COVID. 19. The fifth section will look at the opportunities of digital literacy. This paper will close with a few concluding notes.

II. Review of Literature

2.1 Situating Education and Humanities under the time COVID-19

Apart from health workers, the world sees how work and activities in the education sector face crucial challenges under the threat of the COVID-19 pandemic (Agba, Ocheni & Agba, 2020; Dwivedi et al., 2020). Like many other aspects of our everyday lives, the COVID-19 pandemic severely impacts students, teachers, and educational organizations worldwide. On April 6, 2020, UNESCO reported that there were 1,576,021,818 students affected from 91.3% of the total students enrolled in 188 countries at all levels of learning. This pandemic has caused schools, colleges, and universities worldwide to close their campuses.

We have seen a big picture of the COVID pandemic affecting education and humanity. We must recognize that the COVID-19 pandemic has caused changes in the practice of digital pedagogy at an unprecedented rate (Dwivedi et al., 2020). The most apparent impact of this change is the rapid shift from conventional education to virtual learning (Peimani and Kamalipour, 2021).

This pandemic is accelerating the sudden shift from conventional teaching and learning in physical classrooms to online forms (Klein et al., 2021). This shift has been massively occurring in the last two years or so. This shift also presents a reality where teachers (educators) have to build virtual classrooms with students (Rupanta et al., 2020). The danger is that the response to this crisis is not accompanied by a broad knowledge and skills base.

In fact, in the periods before the COVID-19 pandemic, our lives were already leaning rapidly towards technology. We are dealing with an undeniable global digital technology landscape that has permeated and dictated every aspect of our daily lives (Sergeant, 2019). Technologization affects many aspects of life, including storing information, transmitting knowledge, historical records, and other social communication forms. Campbell (2006) uses the term "possession" for the ability of digital technology to control human life. Meanwhile, Martin (2006) uses "infused" to describe human life influenced by digital technology. Both agree that digital technology guides human life.

Many researchers analyze the effects of the pandemic on education. They described this situation as a learning crisis (Adedoyin and Soykan, 2020). This crisis identifies the rapid shifting in the practice of teaching and humanities. They are also concerned about the technical gap, e-learning problems, psychological impact, and modes of communication. These studies target crucial issues such as the technical aspects of e-learning, the psychological impact of the pandemic, and the point of view of scholarly communication under the COVID-19 pandemic (Bozkurt et al., 2020).

The response to the crisis adopted by educational institutions, both schools, and universities, is still limited and only deals with the aspects of the delivery media without paying attention to the theory and model of effective online education. Therefore, online education discourse during the COVID-19 pandemic is only oriented on building an emergency distance teaching platform (Ferding et al., 2020).

Moreover, this condition creates other problems for both educators and learners. This is because the creation of virtual classrooms and online research is often carried out without adequate training, skills, and other support (Brindley, Blaschke, and Walti, 2009). Many educators face severe physical and mental fatigue. They have to spend long hours in front of the laptop screen without interaction or very little interaction with their students. Thus, shifts and transitions towards online learning have a crucial impact on the cultural structures of educators and learners.

2.2 Rethinking Digital Literacy

The concept of digital literacy covers all fields and competencies related to media. In line with Pérez-Tornero's holistic approach, digital literacy is defined as a concept encompassing all aspects and competencies related to several essential elements, including media and technology (Yildiz, ed., 2015). Some researchers argue that literacy is related to the technology and the human aspect that uses the media (Bawden, 2001). Digital literacy can be understood as a set of technological skills or competencies required for various purposes, from access to information (Buckingham, 2010). Although education has long demanded many of us to be digitally literate—the frequency, ability, and skills to make effective use of digital equipment—demand has never been more critical than today. However, the success and effectiveness of applying these digital skills require a balance between digital information technology and the human being element (Van Laar et al., 2017). We are oriented to digital equipment and the human dimension involved in the digital world.

Until now, starting a few weeks after the emergence of the COVID-19 pandemic in the first half of 2020, with the increasing intensity of working and learning remotely under a social distancing scheme, people should quickly and effectively adopt a new way of living and communicating through virtual means (Wang et al., 2021). The COVID-19 pandemic has revealed one crucial issue that is a sign of the need for accurate information links that enable us to make decisions during these emergencies.

Furthermore, digital literacy demands prerequisites. With the increasing number of activities in education and humanities, both teaching and research moving to support the internet, we are faced with limited access to digital networks. According to a Pew Research Center report (Written by Perrin & Atske 2021), even in the United States, 1 in 10 people even don't have internet access. And about 25% of those who have internet access do not have broadband. This condition reveals that digital literacy is an assumption based on digital technology support.

We then come to the fact that we need to increase digital literacy to be involved in education. This situation will challenge us that the more we rely on digital technology to drive our educational activities, the more critical it is to ensure everyone can access digital technology. Some of us may easily accept and carry out digitalization in teaching and learning activities (Crawford et al., 2020). Some of us may use digital tools to navigate teaching and research activities in education and the humanities. However, our situation is not encouraging enough because many people are still not skilled enough to use digital tools in teaching and research.

2.3 Digital Literacy Challenges

Conventional activities in education and humanities cannot be fully implemented at present. Many education and humanities people question the teaching and research practices they have taken for granted over the years as they face the massive shift under the COVID-19 pandemic. Online learning and research are the only activities carried out during this COVID-19 pandemic (Adedoyin and Soykan, 2020). They are under the inevitable consequences of this attack and the spread of COVID-19. Digitalization is the only process recognized to be active and effective during the COVID-19 pandemic.

Currently, literacy and digital technology have changed teaching in many ways. The basic form of this transformation that we have experienced in the aftermath of the Covid-19 outbreak is electronic discussion websites used to "complement traditional discussions" in the classroom (Moore & Miller 48). For example, the Moodle application allows teachers and students to communicate and respond in lecture activities during the pandemic.

For the first time, we find ourselves forced to tackle these technological needs due to the spread of the Covid-19 virus (Kummitha, 2020). Digital literacy requires specific skills and knowledge from computer programs, software, the internet, and digital technology rather than traditional reading, writing, and research skills (Knobel and Lankshear, 2006). However, this digitalization in education and humanities requires students, teachers, and researchers to integrate technology and the internet into their classrooms and research activities (Greenhow et al., 2006). Direct digital literacy requires strategic skills in developing practical plans for teaching and research (Alexander et al., 2017). This means that students, teachers, and researchers must adopt digital literacy into their learning and research activities.

Digital literacy requires educational actors such as students, teachers, and researchers, to do online learning and research every day. The shift to digital literacy and teaching and online research requires new teaching strategies and materials to address these digital technologies and tools (Whalen, 2020). Today, we must incorporate more internet and digital technology into our classrooms which have become online classrooms where students and teachers are forced to develop their digital literacy.

Since the pandemic, we have started to feel the need for digital literacy as teachers, scholars, and students need to do online research every day. One facet of this transition to digital literacy is that some significant changes are required in the syllabus, focusing on

developing student skills in conducting online research. It is crucial for students to "make informed judgments" about what they are doing. The internet is an open medium to which contributors have a worldwide access and, therefore, may not always be a reliable source of knowledge.

The need for the importance of digital literacy during a pandemic directly presents crucial challenges for education and the humanities. Educational actors cannot escape from this great flow of change. At least there are four challenges from digital literacy for education (humanities) during this pandemic. These challenges necessarily require significant transformations.

First, digital literacy is primarily related to questions about the availability of digital tools. The availability of digital technology will determine the successful adjustment of the education sector to significant changes during this pandemic. This aspect also relates to the availability and ability to access digital technology. Students, educators, and researchers have limited access to digital tools. This fact refers to the following two crucial dimensions. First, many people are still living with limited digital equipment infrastructure. Their educational practice is not supported by good-quality digital equipment. Second, many people face difficulties financing digital equipment as the main prerequisite of teaching practice during the COVID-19 pandemic.

Second, digital literacy is related to the competency issues of digital technology users needed to facilitate teaching and research work. This aspect is essential when considering the generation gap between educators and students. We must acknowledge that not all teachers, lecturers, and researchers have competencies that match the standards of the demands and challenges of digital literacy. They are asked to improve their digital skills and abilities. Of course, this matter is very complicated. Educational teachers and researchers must devote more time to training themselves amidst limited access to digital technology.

Third, apart from the two issues that we are familiar with, changing the identity of educational actors is an important issue under the challenge of digital literacy. The shift from the conventional to the virtual teaching model impacts the identity of teachers, lecturers, and researchers. They should transform themselves without changing their identity. This condition reflects the obstacles to the cultural transformation of teaching and educational practices. This is based on how academic actors must change their perspective on the role of education in themselves and their entire identity as education. In other words, digital literacy demands not only a change in the way in which education is practised but also an image of itself.

Fourth, digital literacy will influence the culture of learning and research. Virtual classes inevitably affect the intensity of interpersonal interactions between teachers and their students. Online studies and research will also reduce physical encounters between researchers and their sources. Teachers and researchers must begin to adjust to the new culture and ecosystem of learning and research. However, the level of adjustment is different for each student and educator. They need capacities and capabilities that can accommodate the changing flows of this new culture as part of their perspectives and activities. The learning ecosystem presupposes the involvement of other aspects such as facilities, financing, and the curriculum that can support this adjustment process.

III. Result and Discussion

3.1 Opportunities for Digitalization of Education and Humanities

We can say that today's digital technology doesn't just offer a solution for a while. Digital technology also provides a new way to bridge the gap between the problematic conditions of traditional literacy and a fast-moving society that is heavily dependent on digital technology (Berry, 2012). In the COVID-19 pandemic, new technology requires us to create or produce unique teaching and research strategies.

Overall, there are indeed various opportunities in digital pedagogy. This new approach encourages digital literacy and intercultural competence and concentrates on developing student autonomy, being cost-effective and inclusive, and creating authentic online spaces for learning and research (Lee et al., 2013). We need a broad range of expertise to solve today's and tomorrow's problems. We are increasingly aware that digital pedagogies are more than just technological medicine in times of the COVID-19 crisis. Digital literacy provides many more benefits (Brem, Viardot, and Nylund, 2021).

Since our communication takes place online via many digital methods, including email, video conferencing, and instant messaging, we must adapt to new techniques and contexts to exchange information, ideas, and knowledge. During the COVID-19 pandemic, school activities continue to be conducted using a virtual process. Here, educators and learners must understand and effectively use digital technology to keep learning progress.

With their digital literacy skills, teachers and students can benefit by studying the use of technology tools that are constantly developing, learning, and working collaboratively by developing innovations and remaining working towards their goals without any disturbance. This shift highlights a fundamental human aspect of communicating and quickly adapting our communication skills to suit emerging methods and modes of expression.

On the other hand, collaboration in digital technology (techno-collaboration) in its own right gives us a break to duplicate our one-on-one interactions in the real world into the virtual world with the various digital platforms available. There is also a need to develop multiple strategies, norms, and virtual collaborative work procedures to ensure that all participants have the means and opportunities to contribute usefully to group discussions. For example, establishing standards for video calling instead of teleconferencing can encourage group involvement and a greater sense of presence.

Learning, working, and communicating digitally may be difficult for most of us who are used to direct interaction and deprived of intermediaries. While digital information literacy skills are essential to get through this situation, the humanistic side, including the sense of empathy that digital machines do not have, still must be maintained in our learning, teaching, and research processes. Our success in this new environment is achieved through sustained effort, sensitivity, and to some extent, the learning curve that comes with adapting to a completely digital way of working and learning every day (Salmon, 2013).

A year before the COVID-19 pandemic spreads worldwide, the 2030 Agenda for Sustainable Development (SDGs) provides the necessary guidance and guidance in global education. The International Commission on the Futures of Education-created by UNESCO in 2019, composed of thinkers from academia, science, government, business, and education, present nine ideas for concrete action today that will advance education. There are three fundamental ideas from the nine put forward by this organization that follow the context and content of our present needs (UNESCO, 2019).

The first is idea number 3. This idea relates to the rewards of the teaching profession on the one hand and the importance of collaborative teacher action. Many studies suggest extraordinary innovations in educators' responses to the COVID-19 crisis. They are trying to build a system that engages with the educating community and shows high resilience in getting through the most difficult situations under the COVID-19 pandemic (Román et al., 2021). At this point, there is a need and a necessity to encourage and build conditions that provide and extend the autonomy and flexibility of frontline educators to act collaboratively.

The second is idea number six. This idea makes and encourages free and open sources of technology available to teachers and students. Governments and education stakeholders must provide open educational resources and access to digital tools (Huang et al., 2020). Without such broad support, education cannot thrive with ready-to-use content built outside the pedagogical space and the human relationship between teachers and students. It is to state that education cannot be controlled by private digital companies that provide various educational platforms for personal gain.

The third is idea number seven. This idea is directly related to the central issue of this pandemic era of literacy. This idea requires that educational actors, both government and private, must be able to ensure scientific literacy in curriculum and learning. Reflection on the efficacy of this curriculum refers to the following two fundamental needs. First, the curriculum must be a "weapon" against which the great tendency to reject knowledge (anti-intellectualism) can be used (Neem, 2020). Second, this idea is also closely related to the resistance to misinformation which is the cause of various social crises.

Of course, the three main aspects above are part of a comprehensive framework that can encourage the digitalization of education and humanities in learning, education, and research activities. However, this idea is still only a conceptual building. The world of education and humanities requires effective implementation with the support of broad investment from the industry and political policies from the government to support this framework on a practical level.

IV. Conclusion

Technology and, for some reason, the Covid-19 pandemic have shifted the traditional classroom paradigm. Technology has shifted the traditional classroom paradigm that sites us to be "the expert." This can be tough for many educators and researchers to admit. Nonetheless, it is not necessarily a bad case. In our quickly running and evolving technological world space, we are all learners, teachers, and researchers prepared to segment responsibility with students to be more likely comfortable in a networked digital classroom and areas. This is where our education and humanistic sides go along with the model of the digital literacy sector, where all of us are acknowledged as decision-makers, followers, and agents of social change. At this point, the role of trusted guides and lifelong learners in this digitalized world is required.

However, although there are already some teaching aid machines obtainable in schools and colleges, no matter how digitally sophisticated they are, the role of the teachers and educators as humans cannot be replaced. Teachers (and students) are real humans with values who inculcate a sense of belonging and ensure that knowledge is passed down from one generation to another. We all have access to many knowledge and technological changes, but understanding is the most difficult to obtain.

Further study and analysis on this issue need to consider the technological development opportunities of education without underestimating the central role of humans

in the presence of students and educators. Thus, the digitization process only intends to enrich the meaning of education and humanities, not to narrow the substance of education. This idea can challenge the trend of technological determinism in education and humanities in the future.

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