Web 2.0 Technologies in Times of Pandemic COVID-19:
Pedagogical Experience

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ABSTRACT

This study substantiates the feasibility of implementing Web 2.0 services in practical educational activities and classifies the main types of Web 2.0 services adaptive to educational goals. A survey of 58 teachers from the First Moscow State Medical University, Kuban State Technological University, the Herzen State Pedagogical University of Russia, and Yelabuga Institute of Kazan (Volga Region) Federal University was conducted; their pedagogical experiences interacting with Web 2.0 services were considered in order to provide effective technological support for educational interactions in the context of distance learning in the era of COVID-19. The survey results showed that the most popular Web 2.0 services teachers use in distance learning include social networking services and virtual meeting and conference services. The study confirmed that using Web 2.0 services in educational processes can ensure high-quality digital pedagogy.

KEYWORDS

COVID-19 Pandemic, Digital Pedagogy, Digital Technologies, Online Learning, Web 2.0 Services

INTRODUCTION

The COVID-19 pandemic led to a massive global public health campaign to implement mitigation strategies to prevent the spread of the virus by encouraging changes in social behavior, including avoiding crowds and physical distancing (Phadnis et al., 2021). While attempting to introduce these changes to maintain the status quo, various human activities (e.g., shopping, learning, work, meetings, and entertainment) have been moved from offline to online. This shift led to the accelerated spread of new digital technologies (Vargo et al., 2020) and initiated a large-scale digital transformation in society (Iivari et al., 2020). As the workplace has become digital, people's participation in digital technologies and their application of new knowledge gained from the digital environment has

become a driving force behind business activities. Digital competencies are now the mainstay of any organizational strategy. A hybrid conceptualization of a digitally literate professional able to understand instrumental knowledge and communicate and collaborate (via social media) is the key request in the modern labor market (Nachmias et al., 2021).

The COVID-19 pandemic demanded a rapid transition to online studying (Ala et al., 2023). After the outbreak of the COVID-19 pandemic, universities around the world took every possible measure to ensure the continuity of student learning and well-being. The quarantine and campus closings seriously affected educational systems and teaching and learning processes. In particular, during the COVID-19 pandemic, the use of various online learning platforms, media, mobile applications, and social networking sites increased to enable virtual learning collaboration (Alsoud & Harasis, 2021).

The active trend towards the proliferation of social media tools has had a global impact on social interactions. Social media have demonstrated the potential to become essential disruptive technologies for building cutting-edge educational models (Mbabazi et al., 2020). Social media has become a key applied learning tool due to the development of online tools and technologies. Social media technologies allow educators to engage students in learning while investing valuable time in assignments and self-directed learning. Generally, assignments delivered with the help of online communication services allow users to connect and communicate with others regardless of time and geographic barriers (Purvis et al., 2020). In addition, social media can be used as an alternative to learning resources and other learning platforms, which tend to require paid subscriptions (Thaariq, 2020).

The functionality of network communication services is steadily expanding beyond calls and messaging. One of the ways online communication services compete is by developing new features or targeting a specific user group (Ofcom, 2020). The proliferation of mobile media has made anytime-anywhere learning more popular with the younger generation. The COVID-19 pandemic has increased addiction to online learning, which uses the Internet as a medium and transmission channel and smart mobile devices as an interface for human interaction with the digital world (Xu, 2021). Online educational models offer a comprehensive, consistent, and integrated set of e-learning tools that can connect unrelated learners to institutional resources. Thus, eLearning tools ensure virtual and portable learning environments regardless of the learner's location. Classrooms have moved beyond physical boundaries into online forums, and the level of abstraction has penetrated the current teaching and learning environment. That is, the learning environment is divided into local (or physical) space and global (or online) space (Mathrani et al., 2021).

Today, the Internet has a wide range of educational portals, sites, blogs, and communities that provide access to various electronic educational resources. E-learning based on remote technologies relies on the network interaction of participants in the educational process. In addition, the use of social networking services in the educational process is gaining popularity; these can serve as web designers to create educational materials, a social learning environment, and a tool for implementing practical communication interactions in the process of performing individual work and other educational activities (Gerasimova, 2021). Modern research suggests that the use of Web 2.0 services in educational institutions can contribute to the development of pedagogical innovation as they allow the creation of new forms of collective creativity, content sharing, and communication between students and teachers (Bassani & Barbosa, 2018).

Educational interaction through social media is the optimal solution in the COVID-19 era. The availability and widespread use of social media platforms among students and teachers means that user training or a technological readiness assessment is not required. However, it should be noted that teachers' and students' sustainable use of social networks in education requires optimal monitoring, motivation, and planning of online pedagogical activities (Cavus et al., 2021). Although blended learning can offer students more flexibility and accessibility, its planning greatly affects the quality and acceptance of this learning model. Unlike theoretical courses, studio courses require more focus on the course design and the appropriate ratio of online and face-to-face classes. Innovative technological

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