

## ONLINE PLATFORMS – IMPACT AND IMPORTANCE IN STUDENT LEARNING\*

Mihaela Aurelia ȘTEFAN<sup>1</sup>

### **Abstract**

*The development of digital technologies has had a profound impact on society, the economy and everyday life in recent decades. The role of technology in education is becoming more and more important. As technology continues to advance, educators are finding new ways to use it to promote engagement, collaboration, assessment, and personalized learning experiences for students of all ages. In today's context, both teachers and students need to be prepared to face technological challenges.*

*The present study aimed to evaluate the impact of online platforms on the academic learning process.*

*The results demonstrate that online courses and platforms are a practical and effective solution for teaching activities, helping students to improve their skills and adapt to modern educational requirements. However, if they have to choose between traditional teaching and online teaching, students prefer face-to-face teaching.*

**Key words:** *Traditional teaching-learning, Online teaching-learning, Digital platforms, Online courses.*

### **1. Introduction**

Digital platforms, the internet, cloud computing, artificial intelligence are affecting numerous social sectors. The Covid-19 pandemic has demonstrated how important digital skills are for work and for interacting with others, but it has also accentuated the IT knowledge gaps and the need to increase digital education. Parliament wants a European skills agenda that allows people and companies to take full advantage of technological developments (<https://www.europarl.europa.eu/topics/ro/article/20210414STO02010/transformarea-digitala-importanta-avantaje-si-politici-ue>).

Digital technologies and applications play an important role in modernising education, offering various tools for managing courses, collaborating with colleagues

---

\*This is an Open Access article distributed under the terms of the Creative Commons Attribution License (<https://creativecommons.org/licenses/by/4.0/>), which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited. Authors retain the copyright of this article.

<sup>1</sup>Associate Professor PhD, Teacher Training Department, University of Craiova, Romania, e-mail address: stefan.mihaela25@yahoo.com, ORCID ID: <https://orcid.org/0009-0006-2841-5410>

and actively engaging students. Web technology refers to the means by which computers communicate with each other, using markup languages and multimedia packages and involves the use of hypertext markup language (HTML) and cascading style sheets ([https://www.researchgate.net/profile/Yogesh-Surwade/publication/3-24537592\\_Web\\_Technologies\\_From\\_Web\\_20\\_To\\_Web\\_40/links/5ad45b7d458515c60f5400f1/Web-Technologies-From-Web-20-To-Web-40.pdf](https://www.researchgate.net/profile/Yogesh-Surwade/publication/3-24537592_Web_Technologies_From_Web_20_To_Web_40/links/5ad45b7d458515c60f5400f1/Web-Technologies-From-Web-20-To-Web-40.pdf)).

Depending on their specifics and functionalities, we can classify Web tools into several categories, as follows (Gavrilenko *et al.*, 2022):

- image editing, collage creation;
- video editing, animation film creation;
- interactive game development;
- writing presentations, digital books, posters;
- creation of tests, quizzes;
- interactive whiteboard management.

Online platforms and courses are accessible and flexible and offer valuable opportunities for training and updating pedagogical skills. The openness offered by digital education contributes greatly to participation and civic engagement (Polizzi, 2021), in a world where the social is increasingly intertwined with the digital.

School digitalization, as the integration of digital technologies in the educational process, aims to improve learning and teaching. This involves the use of digital resources and tools, such as computers, tablets, online platforms, educational software and interactive applications, to transform the way students and teachers interact and collaborate.

We present some important aspects of school digitalization:

- *Access to educational resources*: Digitalization allows students to access a wide range of teaching materials, online courses and interactive resources, which can enhance learning;
- *Personalized learning*: Technology allows for the personalization of the learning process, so that each student can learn at their own pace and receive support adapted to their needs;
- *Collaboration and communication*: Digital tools facilitate collaboration between students and teachers, improving their communication and involvement in the educational process;
- *Self-assessment*: Digitalization allows for a faster and more efficient assessment of student progress, through the use of online tests and feedback platforms;
- *Development of digital skills*: By integrating technology into education, students develop essential skills for the 21st century, such as critical thinking, creativity and digital skills;
- *Adaptation to individual needs*: Online or hybrid learning offers students flexibility in terms of the schedule and location in which they learn, which can lead to better adaptation to the needs of each student;
- *Infrastructure and training*: For digitalization to be effective, an adequate technological infrastructure and continuous training of teachers in the use of digital technologies in the classroom are necessary.

The digitalization of schools is a complex process that requires commitment from authorities, teachers and the community to ensure its success. Even learning theories can be approached through the lens of technologies (Ceobanu, *et al.* 2020).

## **2. The role of online platforms in the development of teaching skills**

The learning process requires a mixed learning space, in which multiple actors use a variety of tools, relationships and teaching approaches (Wals, 2020, *apud* Aroles and Küpers, 2022). When learning has the conditions to go beyond the space and time of the classroom, we are already talking about a decentralization of educational authority (Boczar & Jordan, 2022).

Online platforms and courses have become essential tools in the training and updating of students' skills. They offer numerous advantages that contribute to improving the quality of education. Here are some relevant aspects:

- *Easy access* - Online platforms allow students to access courses in various fields, without having to physically move;
- *Adaptability to individual schedules* - Online courses offer flexibility in organizing time, allowing students to learn at their own pace.
- *Diversity in learning* - Online platforms offer a wide range of courses;
- *Communication and collaboration* - Numerous online platforms offer opportunities for interaction between learners, promoting collaboration and the exchange of ideas;
- *Assessment and feedback* - Online courses often include assessments that allow participants to measure their progress. The feedback received can be valuable in identifying strengths and areas that need improvement;
- *Time saving and reduced costs* - Attending online courses often involves lower costs compared to attending traditional courses. Also, eliminating travel costs is a significant advantage for students.

Among the digital technologies and applications that can contribute to the effectiveness of the educational process, we list (Cristea, Marchitan, 2020):

- *Moodle* - has several features considered typical for an educational platform plus some original innovations (such as its filtering system). Moodle is very similar to a learning management system and can be used in many types of environments such as: in the educational environment, for training and development;
- *Google Classroom* - Classroom is a tool in the Google Apps for Education suite with which teachers can quickly create and organize assignments, provide effective feedback, and easily communicate with students. The Classroom application - works with Google Docs, Drive, and Gmail. Thus, teachers can create and collect assignments, without them being on paper. They can also see who has completed their assignment, as well as provide direct and real-time feedback to each student;
- *Microsoft Teams* - a complete platform for collaboration and communication, integrating video conferencing, chat, and document sharing functionalities. Teachers can organize online lessons, group sessions, and interactive activities, all in one place. Teams is particularly useful for managing group projects and for quickly communicating with students and colleagues.

- *Zoom*: has become an essential tool for online lessons and seminars, offering features such as screen sharing, separate chat rooms, and session recording. Teachers can use Zoom to create an interactive learning environment and maintain eye contact with students, which is important for student engagement.

- *Edmodo* - is a social learning platform that allows teachers to create learning communities, share resources, and communicate with students and parents. Edmodo's assessment and feedback features help monitor student progress and personalize the learning experience;

- *Kahoot!* - is an educational gaming app that turns assessments and reviews into a fun and interactive experience. Teachers can create quizzes and contests on various topics, stimulating friendly competition and active student engagement.

### **3. The role of online platforms in student learning – an investigative approach**

#### **3.1. Research methodology**

The location of the research we conducted is the University of Craiova, and the duration is one year: the academic year 2023-2024.

##### **3.1.1. The objectives of this research are:**

O1: Identifying the benefits that the use of e-learning platforms brings to academic results;

O2: Analyzing students' interest in teaching activities on online platforms, compared to traditional teaching activities;

O3: Identifying the best strategies to improve teachers' teaching efforts with the help of online platforms.

##### **3.1.2. The research hypotheses from which we started this study are the following:**

*Hypothesis 1: The use of online platforms in teaching-learning activities will determine a better organization of content and solving work tasks.*

*Hypothesis 2: The use of online platforms in solving work tasks and the personalized feedback offered to students determines better exam results.*

The micro-research was carried out at the University of Craiova, and the sample included a number of 110 students from the Faculties of Social Sciences, Law and Theology, enrolled in the psychopedagogical module. There are no major differences in academic performance, an aspect confirmed by the previous results in the subjects of the psychopedagogical training module, and the psychological profile is similar (most students are between 21 and 26 years old, with common interests). Thus, the equivalence of the groups was ensured. We present in Table 1 the distribution of students by specialization:

**Table 1. Distribution of students by specialization**

<b>Social Sciences</b>		<b>Law</b>		<b>Theology</b>	
47	42,72%	42	38,18%	21	19,09%

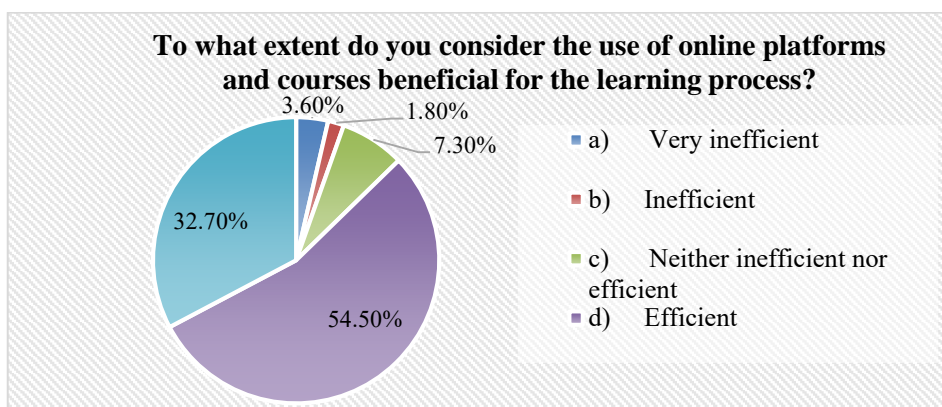
The research instrument used in this study was a questionnaire focused on the benefits of using e-learning platforms in the learning process from the students' perspective. The data obtained from the questionnaire were interpreted and processed using the Microsoft Excel program. Our research has a constitutive, predictive character, with explanatory and evaluation functions.

We present the recorded results below.

### 3.2. Results and discussions

To the question: *To what extent do you consider the use of online platforms and courses beneficial for the learning process?*, the answers were: a) Very inefficient – 3,6%; b) Inefficient – 1,8%; c) Neither inefficient nor efficient – 7,3%; d) Efficient – 54,5%; e) Very efficient – 32,7%

The graph shows that most students consider online platforms to be efficient:



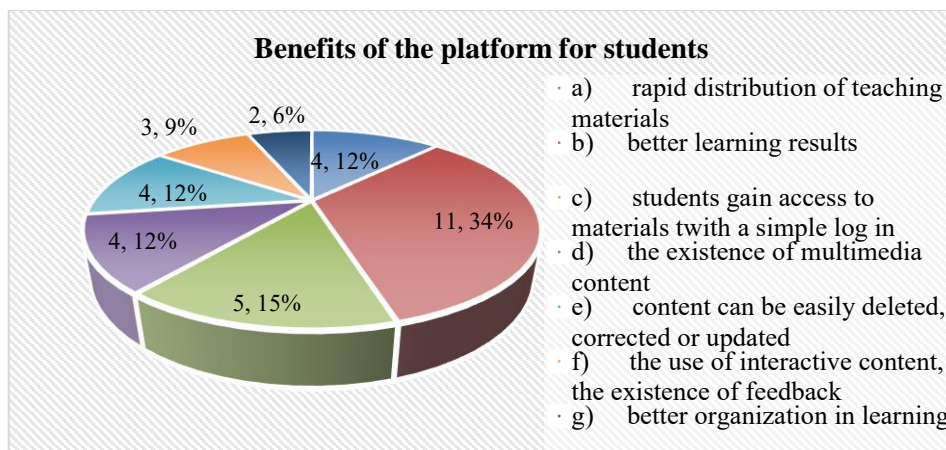
**Figure 1. The extent to which students consider the use of online platforms and courses beneficial for learning**

Among the benefits that students identified in using online platforms during classes, the following are listed:

**Table 2. Benefits of the platform for students**

Items/ Response options	Totally disagree	Disagree	Neutral	Agree	Totally agree
a) rapid distribution of teaching materials	4	16	10	26	54
b) better learning results	11	8	14	26	51
c) students gain access to materials twith a simple log in	5		16	21	46
d) the existence of multimedia content	4	25	15	21	45
e) content can be easily deleted, corrected or updated	4	20	11	32	43

f)	the use of interactive content, the existence of feedback	3	20	9	36	42
g)	better organization in learning	2	18	20	32	38



**Figure 2. Benefits of the platform for students**

From the analysis of the data obtained, it is seen that using the platform in classes and for solving homework, improved the academic situation of these students (hypothesis no. 2 is confirmed).

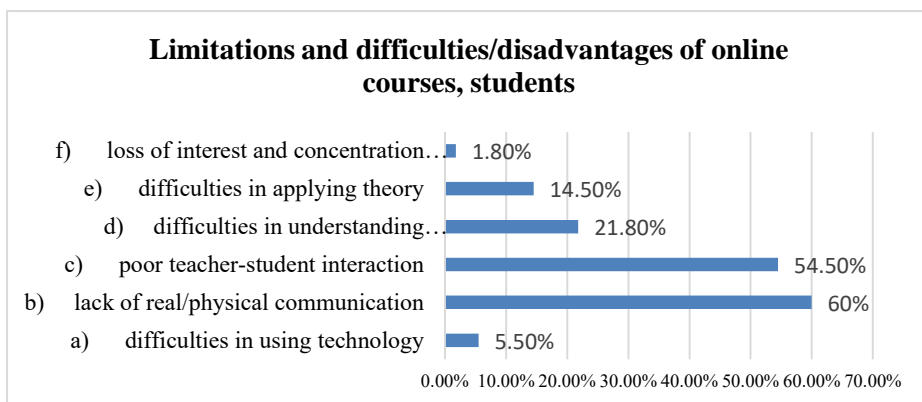
The improvement in the learning situation of the subjects participating in the study is due to the causal chain, that is: the personalized feedback provided to students in solving homework increases involvement and interest in course topics and automatically leads to a visible improvement in learning results.

By using digital platforms, students were motivated to learn and how to use some tools for their educational benefit. More withdrawn, shy students were encouraged online to express their own point of view and improved their personal skills. They had time to think, reflect and solve homework. Introverted students felt safer.

Other advantages of digital education were also identified by vulnerable students, after interviews:

- the group of students who commute no longer had to commute and waste a lot of time in traffic;
- much more accessibility for students with various physical disabilities.

On the other hand, among the limitations and difficulties/disadvantages of online courses, students/research subjects mentioned the following: a) difficulties in using technology – 5,5%; b) lack of real/physical communication – 60%; c) poor teacher-student interaction – 54,5%; d) difficulties in understanding scientific content – 21,8%; e) difficulties in applying theory – 14,5%; f) loss of interest and concentration in following the teacher's lecture – 1,8%

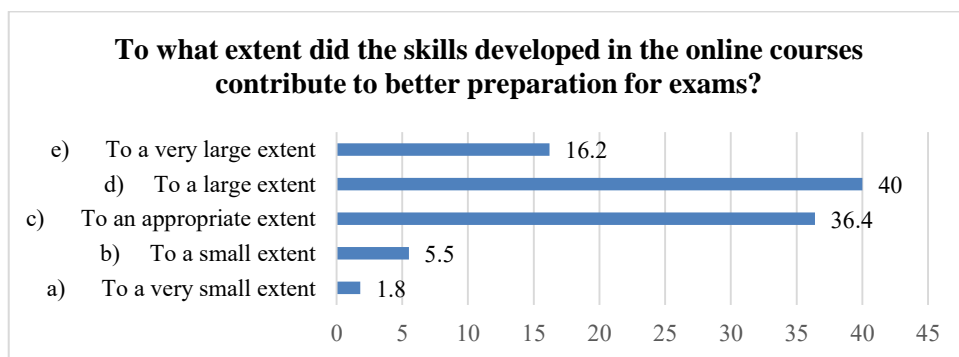


**Figure 3. The limitations and difficulties/disadvantages of online courses, in the students' view**

To the question: *To what extent did the skills developed in the online courses contribute to better preparation for exams?*, the answers were:

- a) To a very small extent – 1,8%;
- b) To a small extent – 5,5%;
- c) To an appropriate extent – 36,4%;
- d) To a large extent – 40%;
- e) To a very large extent - 16,2%;

It is observed that the subjects of the research, for the most part, consider that the online activities contributed to better preparation for exams to an appropriate extent (36,4%) or to a large extent (40%). These results can be corroborated with the data obtained in item 2 of table 2.



**Figure 4. The extent to which the students consider that the skills developed in the online courses contributed to a better preparation for the exams**

As digital resources considered useful in teaching activities, students listed:

- a) [www.manuale.edu.ro](http://www.manuale.edu.ro) (digital textbooks)
- b) [www.clasamea.eu](http://www.clasamea.eu) (teaching materials, activities, experiences)
- c) [www.jigsawplanet.com](http://www.jigsawplanet.com) (online games)

d) [www.learningapps.org](http://www.learningapps.org) (multimedia learning modules in an attractive form to create and manage online)

e) [www.esero.ro](http://www.esero.ro) (online resources)

As proposed solutions to improve teaching in the online environment, students mention:

- Using interactive methods, such as projects, simulations, debates, etc.
- Tasks posted on platforms;
- Introduction by the teacher of problem situations that will arouse students' curiosity and creativity;
- Integration of multimedia elements (explanatory videos, animations, simulations);
- Introduction of game elements (points, rankings, badges) to increase student involvement;
- Dividing lessons into short, well-structured segments to maintain participants' attention;
- Using platforms such as Google Workspace, Padlet, or Miro to allow work in small groups;
- Using tools that personalize content according to students' needs and learning pace, such as Kahoot or Edpuzzle;
- Continuous training for teachers: Training courses for the use of digital platforms and for the integration of new pedagogical methods;
- Creating communities of practice to share experiences, methods and resources;
- Using relevant real-life examples;
- Organizing regular one-on-one meetings to discuss progress and potential difficulties;
- Appreciation of performance and effort through messages of encouragement, virtual diplomas, etc.;
- Fast and detailed feedback after each activity, with concrete advice for improvement;
- Allowing students to access course notes in advance;
- Introducing creative assignments and projects;
- Creating workrooms during online courses, dividing students into small groups for discussions and brainstorming;
- Integrating a calendar accessible to all, where teaching deadlines, class hours and important events are marked;
- Carrying out several questionnaires, applied works, projects (individual or small groups).

To the question (objective no. 2): *What would you choose: online teaching-learning or traditional teaching-learning?*, the answers were:

a) *online learning* - 27,27%

The arguments given were the following:

- attendance at classes would be higher in the online environment;
- platforms can help organize content, in accessibility to teaching materials;



- the online environment allows access to educational resources anytime and anywhere;

- online platforms facilitate the use of multimedia materials and interactive platforms, which make the learning process more attractive and adaptable to individual needs.

b) *traditional learning* - 39,09%

The arguments given were the following:

- it is a dynamic interaction between the teacher and the students; face to face with the teacher, it is much easier for students to learn and they are much more attentive;

- face to face lessons allow students to ask questions, develop social skills, and interact daily;

- the organized environment of the classrooms helps students to maintain concentration throughout the course;

- in addition to easier communication and increased attention of students, the simple fact of being placed in an academic environment with other students facilitates their development from other points of view as well;

- the teaching staff can observe the student's emotion; interaction between colleagues contributes to emotional development;

- allows the student to ask questions to clarify certain misunderstandings in a real way;

- the atmosphere in a classroom creates a feeling of responsibility and deeper involvement;

- the physical presence in an educational community gives students a sense of belonging and stability, reducing the risk of social isolation or decreased motivation.

c) *hybrid learning* - 33,63%.

The arguments brought forward were the following:

- a good part of students have jobs and we can hardly manage to come to college;

- offers flexibility and access to various resources; online interaction can complement the perspectives outlined face-to-face;

- combines the advantages of online teaching, such as flexibility and access to digital resources, with the benefits of traditional teaching, such as face-to-face interaction and socialization.

Although students appreciate online platforms, they still value traditional learning, without neglecting the advantages of online platforms.

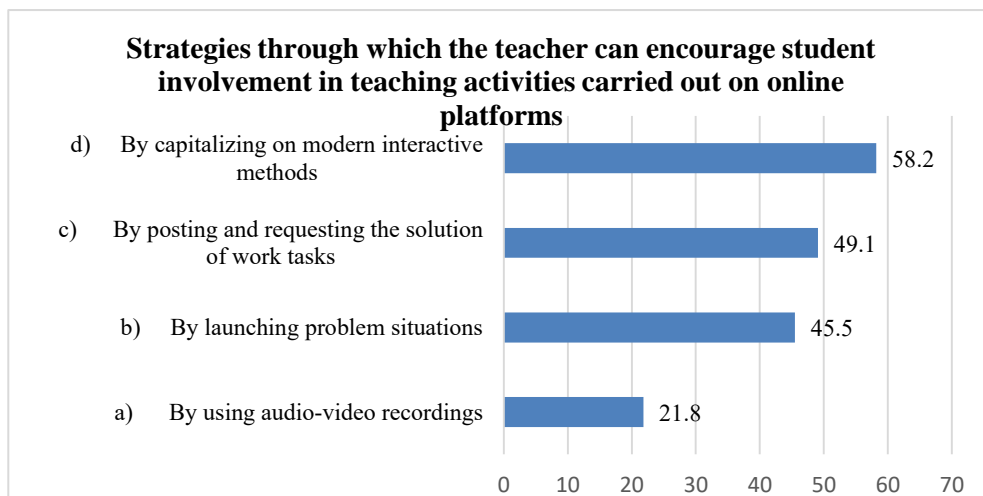
As strategies through which the teacher can encourage student involvement in teaching activities carried out on online platforms (objective no. 3), the subjects identified:

a) by using audio-video recordings 21,8%;

b) by launching problem situations – 45,5%;

c) by posting and requesting the solution of work tasks – 49,1%;

d) by capitalizing on modern interactive methods – 58,2%, most answers.



**Figure 5. Strategies through which the teacher can encourage student involvement in teaching activities carried out on online platforms**

Regarding the grades obtained in the exams in which they had tasks to solve online, the students obtained higher grades in the psychopedagogical disciplines in which they had to solve work tasks during the training program. The number of students who obtained grades higher than 8 was higher than the number of students who obtained grades lower than 8 (Table 3). We believe that the better results are due to continuous assessment. Based on the data recorded on the Google Classroom platform, we can outline the overall picture of the academic results recorded by students (Objective 3).

**Table 3. Data on the number of students who obtained higher grades on exams that involved tasks to be solved on Google Classroom**

Social Sciences			Law			Theology		
number of students who obtained grades higher than 8	72,34 %		number of students who obtained grades higher than 8	76,19 %		number of students who obtained grades higher than 8	71,4 %	
number of students who obtained grades higher than 8	27,65 %		number of students who obtained grades higher than 8	23,80 %		number of students who obtained grades higher than 7	28,5 %	

#### 4. Conclusions

Teaching and learning in the digital age have been significantly transformed due to technological advances and increasing access to information. In the digital age, these offer significant opportunities, but also come with challenges that must be carefully managed to ensure quality education.

“In the context of new challenges (...) curricular innovation – the transformation of education, as it is often called, or reform – has the teacher as its central element and involves ensuring viable mechanisms that allow, recognize, and train...” (Istrate, 2023. <https://educatia-digitala.ro/profesorii-se-intalnesc-online-pe-platforma-iteach/>). Online courses and dedicated platforms offer valuable opportunities for updating knowledge and improving pedagogical skills. The use of digital technologies and applications can transform the educational process, making it more interactive and efficient.

It is the task of teachers to integrate digital resources into their teaching practice, to adapt to modern requirements and to offer students a special learning experience.

“Technologies are just tools that can be used in several fields, especially in education, but the most important thing is how they are applied. It is known that in education media technologies are used in different combinations, and the six media pillars are: face-to-face learning, text, graphics, audio, video, computer (including animations, simulations and virtual realities)” (Bates, Anthony William, 2015)

“Currently, being educated means more and more learning convergently, in the two modes: real and virtual” (Herlo, 2016).

Blended learning is a term that describes “a mixed learning approach that combines traditional learning methods with independent study (...) is the interaction between teacher and student through technology. Students can enjoy personalized learning using blended learning tools” (Stoica, 2022, p. 8).

This type of learning allows students to personalize their learning experiences using additional, modern tools and beyond the classroom. This type of learning prepares students to work in technology-based jobs and teachers can improve their lessons. This is a modernized way of teaching that has a positive impact on a student’s learning experience, through this blended learning a balance is created between online and face-to-face education.

In summary, online platforms and courses play a crucial role in training and updating skills. They not only facilitate access to information and resources, but also support student development, thus contributing to the improvement of the educational system as a whole. By using these tools, students can become more efficient and better prepared to meet the challenges of contemporary education.

Of course, these technologies should not replace traditional education, these modern learning methods should be seen as a complementary form of teaching intended to cheer up, diversify the teaching-learning act. If they have to choose between traditional teaching and online teaching, students prefer face-to-face teaching.

## REFERENCES

1. Aroles, J., & Küpers, W. (2022). Towards an integral pedagogy in the age of ‘digital Gestell’: Moving between embodied co-presence and telepresence in learning and teaching practices. *Management Learning*, 53(5), 757–775. Retrieved at: <https://doi.org/10.1177/13505076211053871> [online, 29.10.2024].

2. Bates, A. W. (2015). *Teaching in a digital age, Third Edition – General: Guidelines for designing teaching and learning*. Retrieved at: <https://pressbooks.bccampus.ca/teachinginadigitalagev3m/> [online, 25.10.2024]
3. Boczar, A., Jordan, S. (2022). Continuity during COVID: Critical digital pedagogy and special collections virtual instruction. *IFLA Journal*, 48(1), 99–111. <https://doi.org/10.1177/03400352211023795> [online, 20.11.2024].
4. Ceobanu C., Cucuș C., Istrate O., Pânișoară I.-O. (coord.). (2020). *Educația digitală*. Iași: Polirom Publishing House.
5. Cristea, D., Marchitan, G.D. (2020). *Ghid orientativ de utilizare a resurselor educationale deschise*. Retrieved at: <https://isjvrancea.ro/wp-content/uploads/2020/04/Ghid-orientativ-resurse-educationale.pdf> [online, 26.10.2024].
6. Gavrilenco, N., Cașu, D., Garbatovschi, V. et al. (2022). *Utilizarea platformelor educaționale în procesul de predare-învățare-evaluare: Suport metodologic*. Ministerul Educației și Cercetării, Agenția de Cooperare Internațională a Germaniei (GIZ). Chișinău: Print-Caro. Retrieved at: [https://cpam.md/wp-content/uploads/2022/05/Suport\\_integru\\_RO\\_web.pdf](https://cpam.md/wp-content/uploads/2022/05/Suport_integru_RO_web.pdf) [online, 26.11.2024].
7. Herlo, D. (2016). IT tools in initial teacher training, în *Proceedings of international confer-ence e-Learning 2016*, Madeira, Portugal, July 1-4, Edited by Miguel Baptista Nunes, Mag-gie McPherson, 85-92. Retrieved at: <https://eric.ed.gov/?q=Herlo&ft=on&id=ED571469> [online, 27.11.2024].
8. Istrate, O. (2023). *Pedagogie digitală: O abordare pragmatică pentru taxonomia pedagogică a resurselor educationale deschise*. Retrieved at: <https://educatia-digitala.ro/pedagogie-digitala-o-abordare-pragmatica-pentru-taxonomia-pedagogica-a-resurselor-educationale-deschise/> [online, 20.11.2024].
9. Patil, H., Surwade, Y. (2018). *Web Technologies From Web 2.0 To Web 4.0*. 4(2), 1-5. Retrieved at: [https://www.researchgate.net/profile/Yogesh-Surwade/publication/324537592\\_Web\\_Technologies\\_From\\_Web\\_20\\_To\\_Web\\_40/links/5ad45b7d458515c60f5400f1/Web-Technologies-From-Web-20-To-Web-40.pdf](https://www.researchgate.net/profile/Yogesh-Surwade/publication/324537592_Web_Technologies_From_Web_20_To_Web_40/links/5ad45b7d458515c60f5400f1/Web-Technologies-From-Web-20-To-Web-40.pdf) [online, 28.11.2024].
10. Polizzi, G. (2023). Internet users' utopian/dystopian imaginaries of society in the digital age: Theorizing critical digital literacy and civic engagement. *New Media & Society*,. 25(6), June 2023, 1205-1226 Retrieved at: <https://journals.sagepub.com/doi/epub/10.1177/14614448211018609> [online, 25.11.2024].
11. Stoica, A.L. (2022). *Beneficiile utilizării platformelor e-learning în predare-învățare*. Arad: Școala Vremii Publishing House.
12. \*\*\*European Parliament. *Transformarea digitală: strategia UE explicată*. (2023). Retrieved at: <https://www.europarl.europa.eu/topics/ro/article/202-10414STO02010/transformarea-digitala-importanta-avantaje-si-politici-ue>