THE EDUCATIONAL CHALLENGES OF DIGITAL TECHNOLOGIES

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Abstract: The paper focuses on the educational challenges of digital technologies. The emergence of easier-to-use and more accessible mobile devices and services, along with the desire to adapt education to the generation of digital children, with completely new expectations regarding the education process, has led to a significant change in the way that the act of learning is understood and practiced at school. In the field of education, as in others, the reflection on the development of modern means of communication would only gain from the teachings of the theory of cultural industries, but also of the sociology of technical innovation or the history of communication' means. Major changes are predicted to take place, some actually happen and are part of everyday life. New concepts became common words in the nowadays vocabulary: blended learning, e-learning, distance education, online education. In conclusion, the transformation of the educational process and the evolution towards the digital school involve ensuring access to administrative solutions for management and teachers, transparency for parents and digital study tools for students and teaching staff, in an environment that allows collaboration and effective communication between all parties involved.

Keywords: digital technologies; blended learning; e-learning; educational challenges; knowledge; platforms.

1. Introduction

We are living in times when the Romanian education system has undergone a paradigm shift, the didactic activity being displaced from the school space to the virtual space, due to the pandemic generated by covid. As a result, the human capacity for resilience, the way we manage to face an atypical situation for which no one was prepared, matters a lot.

In recent years there has been a major change in how schools approach technology. The emergence of easier-to-use and more accessible mobile devices and services, along with the desire to adapt education to the generation of digital children, with completely new expectations regarding the education process, has led to a significant change in the way that the act of learning is understood and practiced at school. Instead of using technology only as an additional tool to traditional means of teaching and learning, many schools are using technology to positively influence the educational act. Moreover, instead of using it before or after class, many teachers use technology during class to stimulate interaction with and between students and achieve better results.

During the state of emergency, digital education really became the main form of maintaining the connection with the student. The reconfiguration of the teaching-learning-assessment process depended a lot on the mastery of the teacher, on his digital skills. It has moved from the traditional classroom to the virtual classroom. The teaching staff tried to overcome the barrier of social distancing through media awareness, using various platforms and applications: Zoom, Meet Classroom, WhatApp, Messenger, etc.

Thus, the teacher-student connection was created, in order to consolidate and deepen the theoretical notions, to go through the subject, to prepare the students in order to take the exams and to make the students aware that regardless of the form in which the educational act is carried out, school is essential. Didactic design has been rethought and reorganized so that every student has access to open educational resources. The learning activities were organized in the form of: online lessons, worksheets, homework, quizzes, didactic games, audio or video resources made available in digital format. Using a certain platform, students had quick access to the resources made available by teachers, and the latter had available online individual or group feedback mechanisms regarding the students' activity, performances and works. Additionally, users could create various custom options to run school or extracurricular projects within the platform at no extra cost. Quizzes and the online library, an ever-growing collection of educational materials for teachers and students, are also highly used. The partnership with the robotics area has become part of our existence, and the elements that define and redefine communication in the instructive-educational process relate to a profile in which man and technology will collaborate.

In a society in constant change, any development goes through education, so the education system must adapt to new changes and support new generations with resources and offers that meet these needs, which makes it practically impossible to revive the education process without the implementation of information technologies. In the current context of the 21st century, the term digital pedagogy is circulating more and more, which refers to the use of digital technologies in education and their application in a pedagogical perspective by designing educational paradigms. The use of technology has recently become a necessity, with the ultimate goal of satisfying the training needs of students, valuing the correlation of technological aspects with pedagogical ones. Devices have facilitated interconnectivity and facilitated access to information, actually representing a much faster source of documents and an access path to a new, more efficient teaching-learning style.

2. The concept of blended learning

The concept of blended learning is a modern, flexible educational concept, which aims at the acquisition by each student of high technical level knowledge. The system is based on innovative study concepts and methods that include classroom study assisted by a trainer, individual study and online study.

Learning based on traditional methods remains one of the most appreciated ways of learning theoretical concepts. But the interaction between teacher and pupil/student proved to be the most effective and the consolidation of learning contents better, through blended learning. Blended learning is a formal or non-formal educational program that combines digital media with traditional classroom methods. Sometimes the term associated learning is replaced by that of personalized learning or that of personalized training therefore mixed learning is also a return to teacher-centered learning, the only ones responsible for designing the didactic scenario, for structuring and presenting the learning content.

"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, (style) graphics, audio (including speech), video,

the computer (including animations, simulations and virtual realities)".(Watson 2018, p.34)

Blended learning is the interaction between teacher and student through technology. Students can enjoy personalized learning using blended learning tools, teachers can interact with students more effectively by monitoring the increase in the quality of the instructional-educational act and by providing instant feedback.

This type of learning allows students to personalize their learning experiences using additional tools, modern and beyond the classroom. This type of learning prepares students to work in technology-based workplaces and teachers can improve their lessons. This is a modernized way of teaching that has a positive impact on a student's training experience, this blended learning creates a balance between online education and face-to-face education, which encourages students to take online vocational training courses.

Technology-based learning has proven to be effective when retaining students in the classroom or online education. This method is not monotonous but always improves training, allows students to concentrate for longer periods of time which leads to making progress. Blended training methods include teaching tools that allow creativity in the lessons and in the proposed topics.

Another advantage of blended learning is that students can work individually and the teacher can more easily identify those who need individualized help, which improves the students' attitude towards learning. Each student has the opportunity to work at his/her own pace. The advantages of using technology are obvious. Computers have an information storage capacity that clearly exceeds the capabilities of any other system with the same functionality, including libraries (virtual libraries have reached an enormous volume of information without requiring physical infrastructure, as in the case of conventional libraries). The ability to transferring information, quickly and cheaply, regardless of physical distance, in real time, is an indisputable advantage, which allows information systems to become a particularly effective complement to classic libraries (or even to replace them, where there is no physical possibility to the existence of a traditional library), and the volume of data/information transmitted is considerable.

These advantages could be converted into the emergence and consolidation of a new education system, and a new way of learning, online learning. The system has acquired an obvious scale and is used on a global scale, covering an increasingly large field of self-learning or distance learning, but it is necessary to specify that the human interaction necessary for learning remains an indispensable component, which is covered by the tutorial component of these courses (either by supplementing the online activity with tutoring sessions carried out through the effective participation of the students and the tutor, or by tutorials supported by direct discussions in the virtual space) and by the component that facilitates mutual relations between the participants (forums, work tasks developed in group), aiming at the active participation of the learner.

The explosive technological development of recent years has allowed not only the considerable reduction in the size of data storage and management devices, but also the increasingly high performance of these devices. However, the use of applications in the didactic activity is particularly useful, not only in the case of learning foreign languages (perhaps most educational applications are platforms or software for learning and practicing foreign languages), but it can be a much more creative option to carry out projects, to evaluate knowledge and skills, to train certain work skills, to practice algorithms, to synthesize and schematize contents for teaching/recapitulation.

The year 2020, with its dramatic developments, has brought to everyone's attention the idea that inexhaustible resources of technology have been insufficiently exploited. The crisis that caused the generalization of online learning will reach its inevitable end, but online teaching and learning will not disappear with the dramatic situation that generated the expansion of this way of working.

The role of the computer in training is becoming more and more important, according to the technological advance and the pace of technological progress. Thus, the computer is no longer just a means of informing or illustrating the knowledge to be taught, but becomes a useful tool in simulating, applying and consolidating knowledge, practicing work skills, evaluation and self-evaluation, which allows students additional skills - to obtaining and managing information, exploring, selecting and systematizing information. „Accelerated scientific research, rapid technology development and competitiveness are the main forces in the national and global market for increasing information intensity".(Moore, 2019, p.98) The success of research, development and marketing depends heavily on the rapid and reliable transfer of information, as well as the ability to quickly organize information into knowledge.

The use of artificial intelligence methods and techniques in the development of educational software products has managed to solve a number of important problems, among which we mention:

- o choosing the appropriate lesson sequence for each student;
- o the dynamic modification, depending on the student's evolution, of the applied didactic strategy;
- o diagnosing, understanding and anticipating the cause of the student's errors;
- o accepting correct answers and explaining errors in the case of incorrect answers;
- o natural language dialogue with the student.

Microsoft Teams is a digital platform that integrates conversations and content in one place, thus proving an extremely effective tool for interactive online education. Microsoft Teams allows the organization of courses, webinars and online training sessions, in which up to 10,000 people can participate. What sets it apart from other hubs is the fact that the sharing and editing of files in Word, PowerPoint and Excel format can be done in real time, and the sharing of audio, video or screen sharing is of impeccable quality.

Attendance invitations for online courses and meetings are easier than ever by sending an invitation to attend by email. In addition, Microsoft Teams has the option to mute or remove participants from a session, but also to designate presenters. Invited persons, who are outside the organization, can wait in a virtual waiting room for validation of access to the meeting from the organizers.

The functions and benefits of the platform:

- ➢ Recording - the function allows to record the Teams session, store it in the cloud and later access or share the content.
- ➢ Chat - the function allows written discussions with participants both before a Teams session, but also during the meeting or after the meeting.
- ➢ Custom background - the function allows you to choose a background from the predefined ones available in the application or allows you to load a custom one.
- ➢ Raise your hand - The option allows you to virtually raise your hand with

a simple push of a button, to request the floor or to answer a requirement within an online class.

➢ List of participants - the function allows to view and download the list with class attendance, teachers thus having the opportunity to manage the class as in a virtual class book.

The platform can be used to create an online classroom, facilitating both active communication between teachers and students, as well as the continuation of the teaching-learning process at a higher quality. The Microsoft Teams application facilitates the active involvement of all students in classes through virtual connectivity and group or individual activities, which can be accessed from a desktop, laptop, online from a browser or from iOS or Android mobile devices.

Pupils, students and teachers can work together collaboratively, sharing resources in one platform. Thus, everything the teacher works on the interactive whiteboard can be seen by the students in real time without other accessories. Also, through the function of allowing control, students can be allowed to interact and intervene at any moment of the lesson, in real time with the content of the current lesson.

➢ Collaboration - Microsoft Teams allows file co-authoring and resource sharing through the Office 365 applications it has integrated.
➢ Communication - The application offers the possibility to stay connected through chat, conversation channels and audio-video sessions and to receive notifications about the connection of the class to the training sessions.
➢ Personalization - The feature allows the Teams application to be customized according to the needs of the teacher and students.
➢ Assignments - The feature allows you to upload and create assignments for students, provide course support and provide feedback after completing assignments.

By using the Teams application in university education or for distance learning, users have the opportunity to connect with other colleagues, to interact with the teacher, to collaborate with them on projects, it offers the opportunity to receive various tasks from teachers, and grading is easy, it no longer involves physical presence at school. In addition, the grading of students by teachers is made easier, teachers have the opportunity to make annotations and provide feedback to students, and students have access to both the comments of teachers and the grades obtained.

3. E-learning- a paradigm used in didactic activity

E-learning is the interaction between the teaching/learning process and information technologies - ICT (Information and Communication Technology), covering a wide spectrum of activities, from computer-assisted education (a combination of traditional and online learning practices) to fully online education. Distance education is a correspondence between the educator and the student through the Internet and technology (audio, video, computer networks, etc.).

The basic requirements of e-learning include the following essential elements, which focus on the learner to help them acquire the necessary knowledge:

➢ Infrastructure - designates the set of elements, hard and soft, that allow the

learner access to the information he/she wants to acquire;
➢ Content – refers to the knowledge, in electronic format, established from the subject of the course (in the form of text, audio, video, simulations);
➢ Services – refers to the education framework plans, the relationship with traditional education, the record of the knowledge acquired by the students up to that moment.

The main categories of information stored on an e-learning platform are: data about users, data about the calendar of teaching activities, various analyzes and procedures and the educational resources used. Among the open educational resources (OER) we mention: materials used in teaching-learning such as open projects (open courseware); free courses; directories of learning objects, self-assessment tests, homework; open source software for searching, developing, organizing access to virtual learning environments.

The concept of Free/Open Source Software (FOSS) has been growing exponentially since the computer appeared until now. The success of an open source project is not ensured by a simple presentation of the source code but by the number of its users and developers. Thus, the most famous open source e-learning platforms used in education are: the Moodle platform that allows teachers to test students through assignments and written exams, the Claroline platform that allows teachers to create online courses and is used in over 93 of countries, the ATutor platform through which teachers can publish their materials directly on the Web and students enjoy a pleasant, modern interface; the Nosco platform that provides unique, personalized, interactive content that keeps learners connected.

„E-learning is a worldwide program that aims to increase the efficiency of education and the quality of education with the help of technical means". (Taylor, 2019, p.75) The benefits brought to teachers are: the transmission of a large volume of information in a relatively short time, the permanent realization of feed-back, the standard of professional training increases, the faster identification of gaps and their completion, a better correlation of the learning content with the objectives and the assessment, making intradisciplinary and transdisciplinary connections.

Other platforms used in Romanian schools are:

➢ Moodle (Modular Object-Oriented Dynamic Learning Environment) – a learning environment structured on various modules including one subject each; it is free to download, the program is translated into more than 120 languages, it allows teachers to test students through assignments and written exams, students can upload large files, handouts, images, audio and video clips. Teachers have the possibility to either leave comments on a topic or organize discussion groups among group members on a given topic, so this platform is distinguished by the increased level of interactivity it offers.
➢ Edmodo is an extremely friendly platform with any user and ensures effective, safe communication between teachers, students and parents; the teacher creates his/her own online classbook, can upload interactive lessons or assessment tests for students to solve from his/her own computer, can see every document, file or content shared by students in his class, and also parents can see what children are working on school. Each parent has access only to their own child's files.
➢ Schoology is a popular platform and like Edmodo can be accessed by

teachers, students and parents alike. It has a facebook-like appearance, so it is mainly aimed at young people to improve their school performance.

Against the background of the rapid changes that society is going through and thanks to technological progress, a real revolution has been recorded in the field of computer-assisted training. Nowadays there is more and more talk about globalization in all fields, but globalization in education would mean removing the barriers between the educated and opening new perspectives in pedagogical practice.There are students who are open to knowledge and want to explore this field of IT technologies, they use it and prefer it to traditional methods, but the way it is used and is valued also depends on the mastery the teacher and the way each teacher knows how to combine methods with didactic means in the success of the didactic approach.

Of course these technologies must not replace traditional education, these modern learning methods must be seen as a complementary form of teaching aimed at diversifying the teaching-learning act. Although e-learning and IT are used in schools in Romania, especially in terms of distance education, we are still in the pioneering phase in terms of their quality, the degree of spread and recognition of their benefits, and the reluctance with which they are viewed when some teachers or students for purely subjective reasons do not use them or find them more ineffective than traditional teaching methods.

Even if the statistics show that our country is below the average for the use of technologies at the EU level, the offer of open source e-learning platforms is constantly expanding, many university and pre-university educational institutions use these platforms. Using modern technology and e-learning platforms, students benefit from an improvement in the skills of graphic organization, writing, reading, spreadsheets, mathematical calculations.

"Recent data show us that 1 in 3 students do not have access to digital education and 30% of students do not have access to the Internet". (Gilster 2021, p. 78) Therefore, in many areas of rural Romania school stopped when it moved online. But it is not the only element missing from the digitalization of the educational process. Another missing element is that we have both teachers and students without basic digital skills. And if in the case of teachers things tend to change, there remains the problem of young people who do not acquire this set of knowledge.

A study published by the European Parliament, called Rethinking education in the digital age, analyzes the digitization of the educational process. In this report, the authors mention that "both students and teachers have to adapt to digital transformations to keep up with the demands of the labor market, global challenges and society". (https://www.europarl.europa.eu, 2020) Thus, from the report we learn that rethinking education in the digital age is an essential condition for the competitiveness of the European continent globally, by creating a workforce that is prepared for the jobs of the future and for a changing market. We also learn from the study that there are differences in the digital skills of students depending on the country, at the European level. And Romania, unfortunately, is on the last place in this ranking, although the generations of students who are in school now, or even those who took the Baccalaureate exam last year, are those digital natives - the generation that was born with high internet access speed, computers and smart phones.

According to Eurostat data from 2021, only 19% of young people aged between 16 and 19 in our country have above average digital skills (i.e. in addition to the ability to

write and send emails, they can install software or applications, they can use digital services banking, sort and analyze data in an Excel or write documents). At the same time, 33% of young people have basic digital skills (they can send emails, install applications, use the basic elements of an Excel). 41% of young Romanians aged between 16 and 19 have low digital skills – they can send an email, but have never used an editor for photos, for example. Comparatively, in Bulgaria the ratio is 23% - 30% - 36%. At the opposite pole are Finland and Luxembourg (topping the list), with 81% of young people having above-average digital skills, followed by Austria, the Netherlands and Estonia with 77%.

According to statistical data, the study shows that, at the level of the European Union, about 84% of households have access to a computer. But there are differences between EU countries. For example, if in the Netherlands 98% of homes have a computer, in Bulgaria only 63% of homes have such a device. And if in Luxembourg 85% of high school students use a computer at least once a week, only 29% of Romanian students have access to a computer at least once a week. (Eurostat 2021) The fewer students who have access to a computer, the lower the percentage of those who have above average digital skills. That is why Cyprus, Bulgaria and Romania are in the last places in Europe in terms of digital skills above the basic level.

In addition to the lack of access to computers or other devices with internet access, such as smartphones, "this generation that should be digital natives is being educated in schools by teachers who have not yet adapted to the digital transformation or by teachers who, although frequently using digital tools, digital applications are often not significantly adapted from a pedagogical point of view". (Prensky 2021, p.56) Furthermore, the vast majority of teachers do not participate or participate only sporadically in professional development focused on digital education. New teaching technologies could provide opportunities to personalize learning contexts, thus improving student motivation and retention.

The use of interactive didactic methods produces an engaging, motivating, beneficial teaching approach for both teachers and students both socially and cognitively. Constructivist teachers are the ones who mediate between current learning and the emerging needs of their students.

We can conclude that the introduction of educational platforms is beneficial in schools of all profiles and all levels of education, more ICT hours per week should be introduced, teachers should attend more IT courses, schools should be equipped with internet and good computers and it would be ideal not only in ICT but also in other subjects to work with smaller groups of students.

Education experts see the potential behind the electronic devices that most people are addicted to today. "Whether in recent years electronic books have gained ground in front of classic ones, education can reach a higher level, adapted to the requirements and habits of the generation raised in the digital age".(Hafner, Miller 2021, p.71) The issue that can arise in this direction is that teachers are used to classical teaching methods and, even if they use a laptop, a tablet or a mobile phone, they cannot so easily get rid of the style they have become accustomed to.

Today's societies in Europe and around the world are strongly shaped by widespread access to the Internet, which makes it possible for citizens not only to have access to an overwhelming and sometimes confusing volume of information, but also to connect and combine it, with public institutions and civil society stakeholders in different ways in a digital world.

Digital transformation is a reality for the whole society, but it comes with a series of challenging situations for all environments. Undoubtedly, it is the students who have taken up and integrated technology as a way of life. The evolution of the teaching tools used in schools has seen a spectacular leap during this period. Although still new to teachers, they are familiar and often used by students. Of course, classic learning methods should not be eliminated from the learning process, but students and teachers need modern learning tools, like those used in free time. Modern technology can be seen as a complement to education and not as a negative factor. Digital equipment has already proven its effectiveness as teaching and learning methods. Working with modern digital equipment is a challenge for teachers. However, many of them access and use modern teaching methods in class, adapting their classic lessons for the digital environment.

With regard to electronic documents in the digital age, the learning unit is oriented towards solving certain work tasks, mainly using the method of learning and training skills by solving a wide range of practical applications and emphasizing the achievement of projects. The digital revolution is a phenomenon that also has implications in education. For example, when delineating the learning content, we must also consider the extensions that emerge in the virtual space and that can be brought, in one form or another, into the classroom and connected to the traditional curriculum. That is, teaching literature or philosophy, the teacher always refers to the curriculum. But he/she can expand and tell students that they will find additional or more in-depth things by going to a particular web page. Therefore, the teacher must know, master and tame this means, appropriate it, connect it to the classical methodological tools.

"Education is not only limited to teaching-learning activity. There is also an administrative dimension, which can be perfected by resorting to these platforms".(Livingstone 2019, p.14) Also, communication between school and family can be improved using new technologies - for example, the digital class book, through which the parent is promptly informed about the school situation. Technological progress is a reality that cannot be stopped and must be accepted and addressed as part of everyday life, and can be seen as a challenge for education, but also as an opportunity. For children and young people, the internet and social media are an essential part of their lives.

According to international studies, a very high proportion of teenagers have used some form of social media and have a profile on a social networking site. Despite the common vision of two different worlds, a real world and a digital world, often seen as being in opposition, young people actually live in one world, comprising online and offline realities.

Whether the educational process is perceived to be centred on something other than the accumulation of predetermined knowledge, but on developing skills and supporting learners to construct their own understanding of the world, it should refer explicitly to their life experiences. Thus, educators must bring the learning process closer to the real life of children and young people, thus incorporating aspects related to their experiences in the digital world.

The educational process should also appreciate and use the skills acquired by children and young people through informal online learning or participation in ICT-related non-formal educational activities. "Young people are more and more used to learning by exploring a new tool or using different online tutorials".(Gere 2020, p.27) This is actually evidence of autonomous learning skills and should be recognized and encouraged in the

school context, along with critical thinking skills to develop the ability to identify reliable and valid sources of learning.

Teachers need to feel confident in a position where they do not necessarily know more than the learners. As digital natives, it is normal for young people to learn very quickly how to use different new ICT tools. It is of course very good for teachers to continuously develop their ICT skills, but it is necessary to keep up with the students in this regard. Even without being ICT competent themselves, teachers can find ways to bring young people's ICT competences into the learning process as resources.

New educational strategies, inspired by non-formal education, can be developed based on the use of the Internet and mobile devices that students already have. Also, many of the educational activities that teachers are used to can be adapted by taking the digital world into account. Teachers should be supported to accept that students can be viable partners for mutually enriching dialogue based on respect and trust. By accepting the role of facilitator of learning, teachers also help students develop independent learning skills and critical understanding. New methods of communication between schools and parents are an important element of day-to-day school management. The use of the Internet is at the basis of these transformations. "The way we live, the way we do business, the way we work, the study methods, the communication between people and even the way we spend our free time are influenced by the Internet".(Martin 2021, p.102)

The important factors for the transition to the information society are the communication infrastructure and IT applications. Thus, from a political point of view, the information society must remain a democratic society, from an economic point of view, it must increase its development possibilities and, from a cultural point of view, it must become a society based on knowledge. The amount of information we have at our disposal is growing exponentially and, for this reason, a system of coordinating them is necessary, as well as appropriate selection services, based on the ability of specialists to analyze and evaluate the information, with the aim of helping the beneficiary to obtain quality, up-to-date and fast information.

The new digital era determines a new type of approach to the educational phenomenon through new communication and information technologies. The analysis of virtual, online educations leads us to the conclusion that there is a new perspective of approaching the educational process under the conditions of postmodern societies. Currently, the system developed in the technology learning process is characteristic of the informal education formula. The advantage in the case of new technologies is the high degree of receptivity of young people, consumers of new media. Global culture dominated by technology is producing mass media literacy and shaping a new model of learning.

The learning process is accessible and interactive, depending on the requirements of accepted social models. Online, virtual education provides useful skills for young people who are in the middle of the schooling process. The differences in value and content in relation to traditional education give a non-standardized, informal education model of connection in terms of the use of knowledge, information and learning formulas.

4. The challenges of digital technologies

In the field of education, as in others, the reflection on the development of modern means of communication would only gain from the teachings of the theory of cultural industries,

but also of the sociology of technical innovation or the history of communication means. Major changes are predicted to take place, some actually happen and are part of everyday life. New concepts until a few years ago became common words in the common vocabulary: e-learning, distance education, online education, self-service, etc. Some of these already involve epistemological debates on the organization of the educational system, all of which are developing in the general context of the global village. The new technologies of information and communication (NTIC), based on the new media, lend themselves to countless types of applications in training, for the direct or indirect benefit of those who learn. With regard to the instructional-educational process, the following roles that ICT fulfil have been synthesized: resources for classroom activities, support in didactic activity, help in the activity of pupils and students. The general categories above try to capture and clarify the impact area of new information and communication technologies in education; successes in practice are rather the prerogative of a searching spirit rather than following rigid rules of application.

Each digital technology integration strategy must be discussed in terms of the reason why a digital product (software or didactic medium) is included in the didactic activity, taking into account the context in which it is implemented and some procedures and criteria necessary for effective use. The use of new digital technologies, "new media within the instructional-educational process is a consequence of the shift of emphasis from a teacher-centred learning environment to a student-centred one, in which teachers are no longer the main source of information".(Creeber, Martin 2021, p.123) Both teachers and students become concerned with using the potential of new digital technologies to adapt to new forms of education (developed on the basis of these technologies) and to respond to new demands on the labour market. The most used educational technologies are those based on Internet technology, with the essential role in the ability to interact and collaborate.

Education based on virtual environments, respectively on the Internet (Web-Based Learning - WBL) has experienced an unprecedented diversification due to the expansion of the Internet, appearing new types of courses, educational institutions, educational programs that combine new technologies with new media in the instructional process. Internet-based education aimed to transform the virtual space into a true training environment, by using various online educational materials: training-specific software tools, didactic materials, electronic manuals, links (hypertext) to other educational resources. This is how educational forms appeared such as: teaching on the Internet (Web-Based Teaching - WBT), Web educational environments (Web-Based Course Environment - WBCE), the virtual class or network learning. "Virtual communities, are inadequate for understanding the contemporary transformations of social relations". (Rowles, Brown 2019, p.48) The concept itself was due to the growth of computer-mediated communication and Internet-based learning environments and was explored from the perspective of the social implications of digital technologies. Regarding this new type of contemporary social structure, certain limits are identified: individualization - which is formed in relation to the awareness of the relationship with others in the context in which the individual is taken from his/her own environment (cultural, educational); intense and ephemeral relationships ; the assimilation of game with work - in network socialization, games are encouraged, or more precisely, a playful state in work relations, of conception, distribution and protection of information in order to encourage creativity. Also, the process of assimilating game with work also corresponds to the diminishing of the boundaries between the workplace/school and private life, between colleagues and

friends, between teachers and students because the relationships continue outside the school space (for example, on social networks); technology - network socialization is deeply embedded in communication and information technologies in order to function as a social relationship. Therefore, the new media, the Internet, have also determined in the field of education the emphasis on the establishment not only of an active virtual environment, but also of strong virtual communities established on the basis of common goals and needs.

Surely, everyone in the educational field has heard of the idea that we need to keep in mind that we are training students for different times. However, we don't think that anyone imagined that we will so soon experience a reality in which the educational process cannot be carried out with the physical presence in school units. Maybe that's why this pandemic found us so unprepared.

However, there was a period when professional communities were created in the online environment, which supported each participant in the process of adapting to the new context, training new skills, providing up-to-date information on new trends, updating some legislative provisions in the field, news in the field of digital technology.

We believe that it was and is useful for the collaboration of all actors in a field that is constantly changing, sharing in the media some personal experiences and points of view, some examples of good practice.

If we look at key competences for lifelong learning, it is necessary to include in their strategies the teaching and learning of eight key competences that are fundamental for every person in a knowledge-based society. Among them are some skills that are in high demand during the online school period: digital skills and the use of new information and communication technologies.

In 2018 the European Council is launching a new set of key competences, which regroups, redefines and complements the previous set of key competences: literacy competence, multilingualism competence, mathematical competence and competences in science, technology and engineering, digital competence, personal, social competence, civic competence, entrepreneurial competence, awareness competence and cultural expression.

There are four categories of skills:

➢ access, search and storage of media contents;
➢ understanding mass media and critical-reflexive analysis of information and contents;
➢ creation and communication of media contents;
➢ civic responsibility, ethical use of information and mass media, balanced consumption.

We have all struggled to adapt to this completely new situation with major implications for all segments of our lives. To a large extent, all participants in the instructive-educational activity were affected: students, teachers, parents. The limitation of relationship has affected us, generated frustration for all of us, regardless of age or field of activity. Certainly, the most affected were the children (especially the youngest), in the midst of formation, development, of different ages, more or less autonomous, more or less dependent on the support of adults. In this context, we considered stimulating the motivation for learning a priority. Learning is an essentially motivated activity and oriented towards knowledge, towards sensitivity, towards rationality and communication.

Motivation makes learning happen; it generates energy; it operates as a factor selecting goals and objectives.

In the stage preceding the pandemic, it was often discussed about the need for rational use of technology, avoiding excessive exposure of children in front of screens of all kinds, in favor of spending time outdoors, exercising, interacting with other children, in order to respect age characteristics. We even found that some parents were already applying this idea, their children having access to different devices only occasionally. Of course, we also had students who were quite good at using a computer, phone or tablet. This was the context in which March 2020 found us. For teachers, the sudden entry into online school has been a huge challenge. First of all, we had to make the best decisions for our students relying a lot on our professional experience, in an insufficiently regulated legislative framework, where the authorities' clarifications were sometimes contradictory. We were put in a position to quickly develop our digital skills acquired in some training courses, to learn the operation of new applications and platforms, to adapt contents. And parents (especially of young schoolchildren) were put in a difficult situation. As we well know, young students did not have digital skills or their own devices, so most of them needed the support of their parents to connect. There were families who had several children in school and had only one laptop that they had to use in their professional activity as well, working from home.

At least in the first months of the pandemic, for most teachers, a lot of time from personal life turned into professional life, and overwork appeared. That is why it has become almost impossible to maintain a balance between the two fields. Understanding that the situation is permanent, that we started a new school year with the same challenges, the idea of ensuring a healthy boundary between professional and personal life came back to our attention.

Beyond the shortcomings generated, the online school also caused a leap in the digitization of education. Equipping schools/students with Internet access devices has been accelerated, and teachers have largely participated in numerous courses and webinars on topics of interest, used and created digital resources, enriching the existing base.

"Training with the help of technology involves digital literacy, the formation of skills in the mass media, specific to the mechanisms of managing the contents circulated by the mass communication means, useful to deal with the huge volume of data, information and messages coming through various platforms".(Lessig 2021, p.105) IT companies played an important role in supporting the educational process during this period. Thus, Google and Microsoft reacted quickly, offering packages to educational institutions for free. In this way, institutional accounts for students and teachers were created at the school level, through which they had unlimited access to some applications (including Google Meet and Zoom for video conferences). A large part of the activity took place on Google Classroom. Also, Kinderpedia offered school units a free platform testing period, after which it collaborated with schools on the basis of contracts, offering technical assistance and advice. And the Twinkle platform offered free accounts for teachers for a while, giving them access to a diverse range of digital resources. The Ministry of Education, in collaboration with Romanian Television, created the Telescoala program, which ran over several weeks. Lessons in various subjects and familiarization lessons with some educational platforms were broadcast. Likewise, the academic environment also reacted, appearing several books related to digital education. Gradually, other educational applications and platforms that proved particularly useful in achieving the

proposed goals and objectives were introduced. Applications that were successfully used in online lessons in primary education are: Mentimeter, Wordwall, Quizizz, Google Jambord, Google Canvas, Padlet, Liveworksheets, Google Forms.

5. Conclusions

With these online tools accessible to everyone and a lot of determination, we made progress together and, more than ever, encouraged students to learn and work independently. These activities perfectly suited the real needs of the students during a difficult and tense period and supported the continuation of learning in the home school. It is important to ensure a balance between different ways of learning, with an emphasis on understanding the contents, critical selection, involving attention, structuring notions in logical schemes, training and practicing skills with wide applicability.

We must also take into account the fact that, after months of online school, many cases of psychologically affected students have been reported: anxiety, isolation, decreased motivation to study, nervousness and even depression. Thus, we understand that the physical school remains the optimal form for the healthy, long-term training and development of the young generation, and the online school must remain an option to be applied in exceptional situations.

With a theoretical foundation in the fields of culture, information and communication, certain promoters of educational applications of digital technologies and the Internet claim a multimedia ideal. It can be said that the educational sphere takes a new form in which the new ways of learning can take place in a larger space than the traditional training, while encompassing it at the same time. In this way, an apparent virtualization of educational resources is produced, which leads to the concepts of virtual class or virtual campus, and even to virtual universities or colleges. This transformation in favor of this displacement would determine that the subject of training, promoted to the rank of king student, would become the sole master of his own choices and the sole judge of his own results, at least on an individual level in the space dominated by digital technologies and the Internet, in a virtual community to which he/she belongs. But will he/she have the means and skills necessary to exercise the freedom that will be granted to him/her in the virtual space outlined by digital technologies? The skeptical perspective, at least in the current situation, is that as long as suitable means of mediation are not made available to him/her, acquiring the meta-competences necessary to formulate and carry out his/her own learning and development project, a personalized framework throughout the entire project, remains extremely problematic.

In conclusion, the transformation of the educational process and the evolution towards the digital school involve ensuring access to administrative solutions for management and teachers, transparency for parents and digital study tools for students and teaching staff, in an environment that allows collaboration and effective communication between all parties involved.

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