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MEDIA IN EDUCATION – DIGITAL PLATFORMS IN PRACTICAL APPLICATION

1. Media education as a leading direction of e-learning

E-learning is a type of education that changes the current activity of students and teachers. The teacher must show increased motivation and much greater willingness to activate students. Motivation and internal self-control, which are necessary for each student, must be additionally initiated and supported by the teacher “for example in the form of initial hints on how to organize work, rather than those content-related” (Wedel-Domaradzka & Raczyńska, 2013, p. 4). Such activities change the role of teachers. From now on their task is not only to transfer knowledge but also to support students in achieving their goals. The e-teacher should approach each student individually (in the same way as during traditional classes) because in the so-called “virtual classroom” some students are more active and interested in a specific subject of teaching than others. Therefore, the task of the teacher is to determine the best way to accomplish previously set learning goals. This can be done by dividing the material into modules, i.e. thematic blocks, determining the time of work on a specific module and the rules of assessment, indicating additional sources of information, and giving the opportunity to consolidate or repeat material (Wedel-Domaradzka & Raczyńska, 2013, p. 4).

According to Strykowski (1996), educational media are various kinds of objects, devices, mass media and material that allow you to obtain various

types of information, and also transfer information from the sender to the recipient in the form of messages, i.e. images, sounds and words. The media allow schoolchildren and students to perform various activities of intellectual and manual character, as well as to communicate. According to this definition, the media should include:

- printed and pictorial material;
- slides;
- models;
- overheads;
- recordings;
- radio programs;
- video programs;
- computer software;
- Internet resources (Strykowski, 1996, p. 4–8).

Multimedia is the main source of information. The multidimensional nature of reality means that the hitherto known forms of communication are no longer sufficient to describe contemporary reality. It is believed that only new, pictorial forms allow to understand the huge range and complexity of contemporary phenomena and processes. The student has the opportunity to learn about the past, present and create the future in the virtual world. The student can also observe and influence processes that cannot be explored in a school classroom, for example, due to their health- or life-threatening character. The boundaries of space and time are exceeded, and students may use the intellectual achievements of all mankind.

Students meet the world when their entire personality and psychic spheres are involved in their cognitive processes, which includes also the emotional, motivational and intellectual spheres.

Media, and in particular multimedia, evoke not only specific intellectual states, but also emotions, emotional and expressive experiences, and thus arouse commitment and interest in taught material. There is a close relationship between emotions and motivation. The media, by influencing the emotional sphere of a human being, triggers certain motivational processes. They can shape a system of values, beliefs and attitudes, and so they serve education and socialization. (Jędrzykowski, 2008, p. 7)

Media increases the attractiveness and effectiveness of educational activities. Teachers or lecturers use various didactic aids during classes. The important

thing is that the transfer of knowledge should not be limited only to the bare transfer of information. It should also contain a creative element, that is, be attractive to students. The “core curriculum of general education” indicates that “at school students should shape their skills during practical use of acquired knowledge, in order to prepare better to work in the conditions of the modern world” (Podstawa programowa kształcenia ogólnego...). In today’s world, previously used technical means, like radio, TV, tape recorder or video recorder are no longer sufficient. One of the most important tasks for modern teaching is: “Searching, arranging and using information from various sources, as well as the ability to use electronic data carriers and other technical tools, which are typical of modern civilization” (Podstawa programowa kształcenia ogólnego...).

Marciniak (2018, p. 157) writes that:

media is a key category in the description of contemporary socio-cultural reality. Our society is called, among others, information network, semi-statistical or technical and media can be classified (next to primary groups, economy or work) to socializing institutions for children and youth (Giddens, 2008, p. 50–51). At the same time, the ubiquitous mass media shape attitudes, behaviours and life values of recipients, even if they do not want it (Goban-Klas, 2005, p. 271–273). In what direction is this media socialization going? In popular (scientific) literature, but also in colloquial opinion, a critical discourse towards the media is fairly clear, in which they reach the “the accused’s stand” for the “spoiling” of contemporary youth and adults.

The current media analyses and studies mainly concern digital technologies and social consequences resulting from their use in everyday life: digital inequalities; social media, digital media relations (online) and traditional, their impact on political, cultural, social and identity life (Klichowski & Marciniak, 2013).

2. The use of digital platforms on the example of higher education

In order to analyze in detail how e-learning platforms are used in practice by Polish universities, research was carried out at three Polish universities using three different digital platforms. The list of tested systems is as follows (Garnik & Redlarski, 2014):

- Moodle – it is based on the GNU GPL license. This system is used at the Gdańsk University of Technology by approximately 25,000 students.

- ILIAS – this system is also based on the GNU GPL license, very similar to Moodle. It is used by the Sopot College, by about 400 students. It is used here not only as an e-learning platform, but also serves as the administrative support for all types of studies at this university.
- EDUX – it is a system used in the Polish-Japanese Academy of Information Technology, teaching about 4,000 students.

The Moodle platform has been operating for over a dozen years at the Gdańsk University of Technology. Within the platform, we can distinguish a universal installation for students of all faculties, and a separate installation created exclusively for the Faculty of Management and Economics. There are about three hundred courses on the latter platform, the aim of which is to support the teaching process in all fields of study which are taught at the Faculty of Management and Economics. These courses are similar to classes that are carried out at the faculty as part- of full-time studies. The Moodle platform has both advantages and disadvantages. The advantages include:

- availability;
- constant access through the network to the platform and its contents at any time of the day, which allows students to individually choose the time of the study, adjusted to their abilities and needs;
- mobility – “material is available from any place and with the use of various types of devices having access to the Internet, such as a computer, laptop, smartphone or tablet” (Garnik & Redlarski, 2014, p. 82);
- modifiability – allows you to easily create and edit content that is published thanks to the platform while using many forms of presentation;
- the platform contains many functionalities and tools, the appropriate use of which may increase the attractiveness of the conducted courses;
- easy communication – allows students and lecturers to get in touch quickly outside scheduled hours. The lecturer can quickly inform all students, for example about changes related to the course (Garnik & Redlarski, 2014);
- standardization of the area of knowledge – the content of the course is divided into thematic blocks, which greatly facilitates the determination of the scope of knowledge to be mastered. It also allows for planning the division of content into lessons.

However, the Moodle system also has disadvantages, which mainly include the lack of sufficient interaction with the user. It should also be noted that a large part of the material that is made available as part of the course is

characterized by low interactivity, as these are usually documents published on the platform. This means that the platform is treated as a kind of material repository rather than an interactive teaching system. Another disadvantage is the lack of integration with other Moodle systems. This system does not have integration with other IT systems available at the university. This means that users are forced to use several systems at the same time to obtain additional information (for example from the dean's office). Another disadvantage is a large amount of involvement in developing material. Creating material in an attractive form requires specialized software and a large amount of time. Next disadvantage is the need for high motivation – the use of such courses forces the users of the platform to self-discipline and motivation to learn. Particular attention should also be paid to the extended learning time. Users of this platform claim that the acquisition of the same knowledge is done in a definitely longer time in the case of e-learning courses compared to the traditional form of teaching (Garnik & Redlarski, 2014).

ILIAS is the next discussed platform. The practical application of this platform will be discussed on the basis of research carried out at the Sopot College. ILIAS is a platform that has been used for several years. Several dozens of courses have been made available on the platform. Unlike Moodle, this platform has been integrated with the organizational units of the university. As a result, users can use a lot of additional information related to the implementation of the entire course of study. Among the courses offered by the platform, material related to full-time studies classes dominate. The research allowed for the following conclusions to be drawn. This system has similar advantages and disadvantages as the Moodle system (Garnik & Redlarski, 2014). The main differences are in the benefits of ILIAS, that is integrated with other systems that operate at the university. The ILIAS platform supports the scholarship commission, scientific circles and the dean's office. Information from these departments is extremely important for every student. Of great significance is the fact that the system provides the availability of lecturers, class schedule, didactic material, job or additional classes offers.

Moving on, the EDUX platform is subject to more thorough research as the aim of the research was not only to assess the system's current state but also its improvements. EDUX "is a dedicated e-learning system created for its own needs by a team of IT-specialists from the Polish-Japanese Academy of Information Technology in Warsaw." (Garnik & Redlarski, 2014, p. 84). In 2011 this system replaced the previously used EDU system. The EDU

system had quite limited capabilities, therefore it ceased to be used in 2007. The new system was to be tailored to the needs of the university because, in addition to full-time classes, it also conducts studies in remote mode, for which the e-learning platform seems to be essential. This platform is extremely complex and allows you to flexibly add necessary functionalities by the person conducting the course. The platform has many modules such as placing tasks, tests, assessing learning progress, etc.

Just as in all above mentioned platforms, the course may be added to the system only by the administrator. It is also the administrator who assigns students to specific courses, based on a list from the dean's office. But, the configuration of the course content allows for choosing the right modules by the person conducting the course. The system has as many as seventeen modules, which can be made available to all users of the course by the lecturer. The most important modules include:

- announcements – relevant information for the participants of the course is placed there;
- lectures – created outside the e-learning system lecture material is published there;
- score – there are students' grades there. it is also possible to calculate semester final grades with the help of a special algorithm;
- tests and quizzes – interactive tests for students;
- material – a collection of additional material for students
- websites – thanks to this module it is possible to manage training material that is attached to the course as an HTML page;
- task folders are a network resource that allows students to submit their work
- forum and chat – thanks to it communication between users of the course and the lecturer is possible. Chat allows you to contact in teleconferencing mode, using also image and sound transmission;
- workspace – allows you to exchange files within a group or between groups;
- calendar – descriptions assigned to individual dates – for example, the date of the test;
- links – it is possible to send links useful to participants of the course;
- FAQ – a list of frequently asked questions and answers to these questions;

- lessons – “contains your own HTML editor for creating tutorial material” (Garnik & Redlarski, 2014, p. 82);
- tasks – allows lecturers to create tasks with any content and allows for assigning these tasks to specific students. This is especially useful when dividing tasks between project participants;
- bibliography – a description of textbooks, material and other useful external sources.

Particular attention should be paid to the fact that the lecturer is able to view students’ activity thanks to the access to statistics regarding the views of individual modules. This is a big advantage over other systems that are discussed above. The big advantage of the platform is also the possibility of direct contact with the lecturer, as the teleconference system creates an interaction, similar to the one that exists in traditional studies (Garnik & Redlarski, 2014).

This system is constantly evolving. However, it is used only to a small extent.

In order to improve it and establish the reasons for the low use rate, two types of research were conducted: the first one was based on the expert method, the second had the form of a survey conducted among students and lecturers of the Polish-Japanese Academy of Information Technology in its all three departments: in Warsaw, Gdańsk and Bytom. The research was carried out in the first half of 2013, during the summer semester. The ergonomics of the user interface were evaluated using the expert method. Nielsen’s heuristics were used in this process. (Garnik & Redlarski, 2014, p. 86)

The most important findings of this study showed that the main problems of the platform are related to the interaction of the system. The main problems are:

- difficulty in understanding the messages and terminology used in the interface;
- too many elements of similar purpose;
- use of similar graphic signs and concepts to designate elements that differ from one another;
- susceptibility to errors, which are related to the lack of intuitive interface;
- rare error messages;

- lack of instructions and documentation for users, a limited support system (Garnik & Redlarski, 2014).

The most important disadvantage of the system is that lecturers at full-time studies use it far too rarely. Research has shown that there is a lack of documentation and training for lecturers, with the help of which they could discover the capabilities of the system.

This means that lecturers use this system only when they are forced to do so, for example by conducting a course in a remote mode. They use only those modules they are familiar with. It should be noted that the lecturers of the Polish-Japanese Academy of Information Technology are not obliged to use this system.

In addition, users complained about over-functionality, low intuitiveness, no version for mobile devices, calendar not compatible with applications used in the cloud (the Academy has a Google Docs service that also includes a calendar), no integration with the virtual dean's office and others. (Garnik & Redlarski, 2014, p. 87)

The discussed research has revealed that:

- only a small group of lecturers uses this platform;
- lecturers do not use all of the seventeen modules;
- it often happens that during the entire semester students do not use the platform at all, because none of the lecturers has launched a course on the platform;
- it can be considered that the reason for this is the opaque user interface. The respondents recognized that:
 - purpose of particular modules is unknown;
 - interface elements, such as names and icons, are not clear;
 - a number of modules have very similar functionality, which indicated the need to reduce the number of modules (Garnik & Redlarski, 2014).

However, according to the respondents, the most important problem is the lecturers' ignorance of the platform, which occurs due to:

- no support system (it was only applied to some modules);
- insufficient documentation;
- lack of training dedicated to system users (Garnik & Redlarski, 2014).

3. Didactic advantages of platforms

It is not difficult to guess that the creation of educational platforms is closely related to the development of information society. The rapid development of modern technologies meant that almost all institutions were forced to verify their approach to promoting knowledge. Such terms as “distance learning” or “remote teaching” (in Poland referred to as e-education) do not show all the possibilities offered by e-learning. Educational platforms give access to many educational materials from any device, for example, a tablet, phone or any computer. There are no time limits here. Academic e-learning is understood as a “virtual university” where traditional didactics acquire a completely new form. Not only at universities, but also at cultural institutions and enterprises, online courses are gradually replacing traditional training, since educational platforms allow users to take an active part in the remote learning process. A good example here is China, where in 2012, out of twelve million students about two and a half million studied remotely. Initially, correspondence education was used. The history of this type of education dates back to the 19th century. About 200 years ago, this way of studying was incredibly popular in Poland.

The communication difficulties that existed at that time were much larger than today. “An obvious conclusion can be drawn: distance education was not created as a result of the development of modern technologies, but using them improved its form. E-learning can be divided according to availability in time, techniques used, student-teacher relationship, attitude to traditional teaching, and the degree of formalization.” (Wodecki, 2006, p. 11–12). Distance learning should be adapted to the needs of specific institutions. The choice of appropriate solutions should be left to the course author or persons responsible for the proper functioning of the educational platform. There are many advantages of e-learning. The main advantage is that it allows you to learn at any time and anywhere, and monitor the speed of work. Another advantage of e-learning is that it reduces costs for students and lecturers. Lecturers and students do not have to commute to the place where the course is organized, and course organizers do not have to pay for renting rooms. Modern technologies have a significant impact on reducing communication costs. It is believed that the contact of a lecturer with a student is forty times cheaper compared to the traditional meeting (Komańda, 2014, p. 53).

According to the report, based on studies conducted in 2014 by the University of Economics in Katowice, among economy students of both state and private universities, the advantages of e-learning platforms are visible to participants of this type of activities. At the same time, however, you can see a worrying difference in the access to online courses. A large part of the surveyed state university students did not have the opportunity to participate in e-learning classes. (Jodłowski, 2015)

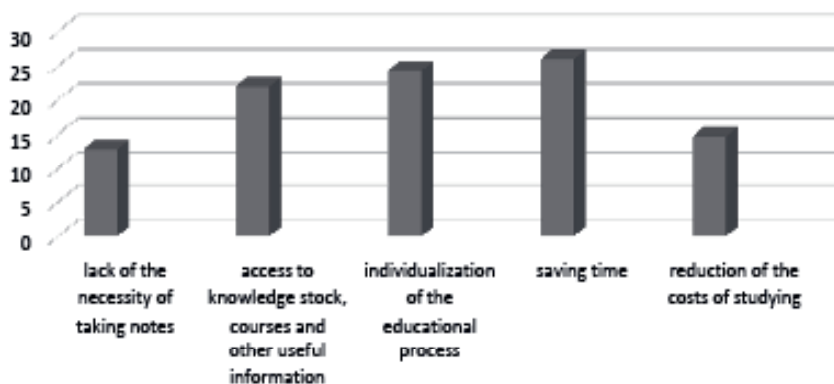


Figure 1.
Advantages of e-learning.
Source: Betlej, 2009.

There is also a large group of e-learning critics. In particular, they pay attention to the lack of direct contact with the person conducting the course. In the longer term, this leads to the disappearance of direct interpersonal relations. Depending on the environment, moving the centre of balance from the teacher to the student is perceived as positive or negative. The important thing is that a person deciding to enrol for an internet course should have a computer and access to the Internet, as well as a high motivation and commitment. Acquiring knowledge using educational platforms is specific and requires specific skills (Clarke, 2007, p. 12). Self-control of work effects and organization are very important here. The vast majority of the material is in a test form, for which reason the ability to read with understanding seems crucial. Due to a large amount of material, it is also necessary to be able to properly select educational material (Jodłowski, 2015).

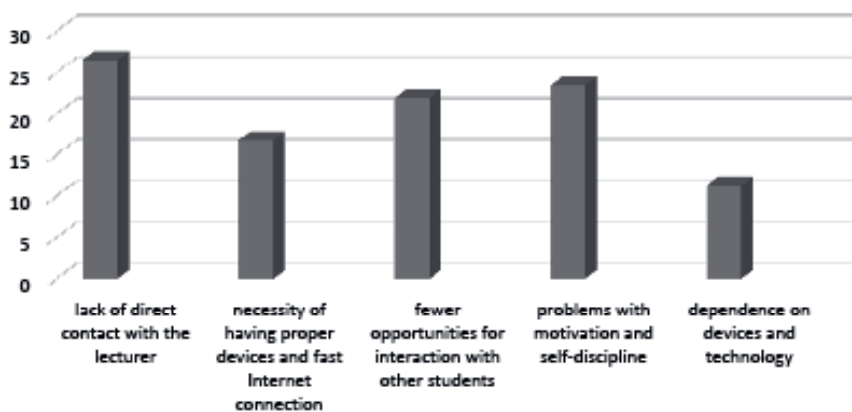


Figure 2.

Disadvantages of e-learning.

Source: Betlej, 2009.

4. Functions of teaching with the use of e-learning platforms

Educational platforms that are an integrated learning and teaching environment have the following functions:

- creation of educational content;
- knowledge delivery and storage;
- planning didactic processes;
- planning educational paths for trainees;
- multidimensional management of teaching process;
- analysis of students' progress;
- administrative service;
- integration with other IT systems.

Training material that is made available on platforms may contain content that is attractive to students, that is, video and sound recordings, graphics or text. This results in a multimedia message. The platform also allows you to track student log-in time and check the resources they used (Plebańska & Kula, 2011, p. 8).

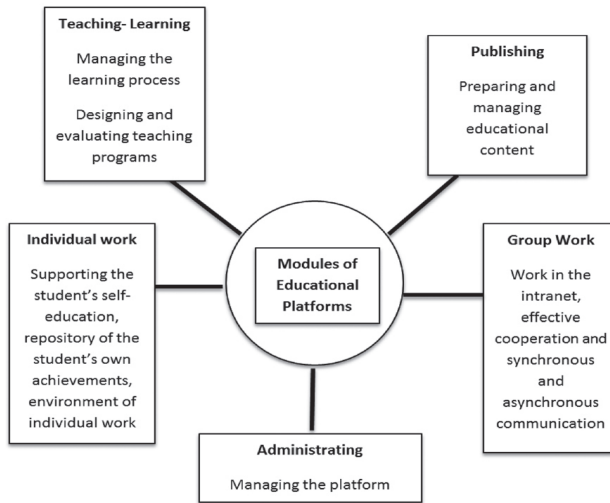


Figure 3.

Modules of the educational platform.

Source: Kopciał, 2013, p. 19.

Educational platforms as an integrated teaching and learning environment perform a number of interrelated functions:

- creating educational content;
- storing and providing structured knowledge;
- planning didactic processes;
- planning educational paths for each trained person;
- comprehensive management of the teaching process;
- teaching progress reporting;
- analyzing the progress of users;
- administrative support of the teaching process;
- cooperation (integration) with other IT systems .(Kopciał, 2013, p. 19)

An important advantage of the platforms is that there are no restrictions on publishing resources. The most important advantages associated with the functionality and management of the course include the possibility of enrolling participants to the course by dividing them into groups, assessing students, viewing student activity on the platform, indicating access rights. By indicating who can access a specific module, it becomes possible to divide resources and functions into those that are available to lecturers and students (Molga, 2015, p. 136).

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MEDIA IN EDUCATION – DIGITAL PLATFORMS IN PRACTICAL APPLICATION

Summary: The contemporary world is overwhelmed by mass media. Without it, it is hard to imagine any sphere of human life. The multimedia also permeated to the education, which resulted in the growing popularity of educational platforms. It is caused by technological development and also a tendency to lower the costs of education. Their availability and attractive form, which certainly is supporting the process, are also advantages of this form of studying. The fact that academic teachers and students can communicate with each other in very much the same way as in the traditional way of communication is also essential. Although educational platforms are being more often applied in education, still only a few colleges and universities are using them. This is because there are a mistrust and anxiety about the disappearance of traditional human relations. Educational platforms have many advantages, but they have also some defects. However, in the contemporary world, where modern technologies are dominating, their application seems to be inevitable.

Keywords: platforms, e-learning, didactics, higher education, technologies

MEDIA W EDUKACJI – PLATFORMY CYFROWE W ZASTOSOWANIU PRAKTYCZNYM

Streszczenie: Współczesny świat jest przepelniony mass mediami. Bez nich trudno wyobrazić sobie jakąkolwiek sferę życia ludzkiego. Multimedia przeniknęły także do edukacji, co spowodowało, że platformy edukacyjne są coraz powszechniej stosowane w edukacji. Spowodowane jest to rozwojem technologicznym, a także chęcią obniżenia kosztów edukacji. Zaletą jest ich dostępność oraz atrakcyjna forma, która z pewnością sprzyja procesowi kształcenia się. Istotne jest również to, że wykładowcy i studenci mogą się ze sobą komunikować w bardzo podobny sposób do tradycyjnej komunikacji. Pomimo tego, że platformy edukacyjne są coraz częściej stosowane w edukacji, wciąż niewiele uczelni z nich korzysta. Wynika to z braku zaufania do tej formy edukacji i obawy przed zanikiem tradycyjnych relacji międzyludzkich. Platformy edukacyjne mają wiele zalet, ale posiadają także wady. We współczesnym świecie, gdzie dominują nowoczesne technologie, ich zastosowanie wydaje się jednak niezbędne.

Słowa kluczowe: platformy, e-learning, dydaktyka, szkolnictwo wyższe, technologie