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Global Challenges and Prospects of the Modern Economic Development

DIGITAL MARKETING AND DIGITAL TRANSFORMATION OF THE UNIVERSITY

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Abstract

The article examines the issues of the transformation of the university and the development of the levels of the digital university. Special attention is paid to digital marketing as a core component of a digital university. The topicality of this problem consists in the fact that this is about not only the digitalization of educational processes, but also about their transformation. Modern digital technologies provide new tools for the development of universities and other educational institutions world over. The digital marketing is a new space for Russian universities. The most important digital marketing tools are covered. To move to the modern level, the university must adequately close all levels of the digital university model described above and constantly maintain feedback with key stakeholders - students, research workers, industry and academic partners, school-leaver and applicants. The article analyzes the system of digital marketing activities in education. For transformation it is necessary to develop skills in working with modern digital tools, to digitize certain directions or blocks of educational programs, to provide the university with the reputation of a modern innovative university that operates in accordance with global trends and state development programs. The analysis of the vector of digital transformation of the university using digital marketing is carried out. The main directions of research and the formation of digital transformation of the university are determined.

Keywords: Conceptual model of digital university, challenges of technological transformations in higher education, distance learning, digital marketing, digital marketing tools

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1. Introduction

In the modern world, digital technologies are gaining importance for the functioning of society in almost all spheres of activity. It is impossible to imagine everyday life without the use of these technologies. In a pandemic, digitalization is becoming not just an option, but a real necessity. Education was no exception. After all, it is here that the issue of introducing information technologies becomes a key link in the chain of educational processes.

The concept of approach to education as a whole is changing, as well as to solving problems associated with the learning process at a university. The so-called digital transformation is taking place in a higher education institution, that is, an increase in competitiveness in the market (Jackson, 2019). Many universities are striving to take the lead in the digital education sector. To do this, it is necessary to develop a specific strategy that gives an advantage to this organization and favorably distinguishes it from others. This is an important step in the education system in general and in various areas of the university, in particular (Ahel & Lingenau, 2020).

The topicality of this problem lies in the fact that we are talking not only about the digitalization of educational processes, but about their transformation. The higher education system is reorienting towards the emergence of digital universities. The term "digitalization" is firmly entrenched in our life, it means the implementation, processing, transmission and exchange of information on non-paper media (Barinova et al., 2020). It is a kind of information communication. Digitalization involves the integration of education with information resources.

2. Problem Statement

Digitalization provides opportunities for the exchange of lessons learned and knowledge, allowing people to learn more and make better decisions in their daily lives. Education is gradually moving beyond the university. Distance learning affects the bulk of students. In classrooms, the use of interactive technologies has already become the norm, almost no class takes place without electronic presentations, without video files, educational films. The form of presentation is changing thanks to digital technology (Stefanova & Khayustova, 2018). Distance learning has become possible in various programs with connection to electronic databases, video broadcasts, conferences, forums and many other types of online education, which is still at an initial stage of development (Ellis & Childs, 2019). Requirements for the speed of decision making about the design and implementation of experimental learning formats are growing. This situation is helped by the project management experience of digital companies that use short product development cycles.

As interesting digital innovations, the rapid adaptation of online learning should be noted, which is expressed in the form of the development of blended learning and the active development of online MOOC (Massive on-line open course). The dynamics of development can be traced by the example of access to various online courses, the number of which doubles annually and currently amounts to more than 4200 courses from more than 500 universities, and the number of students is increasing accordingly. Hence, the projected consolidated revenue of the MOOC market in 2020 will be five times the profit of previous years.

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It should be noted that additional areas of application of digital technologies in education, such as digital libraries and campuses, are actively used by many universities in America, Europe, and Russia. Thanks to digitalization, information has become available not only to scientists and experts, but also to ordinary users (Kmecová, 2020). Globalization processes are actively developing; today, foreign internships for students and teachers within the framework of academic mobility programs are no longer a rarity. Many universities are trying to occupy their niche on the global scientific and educational map, while maintaining the uniqueness and competitive advantages. They are faced with the task of entering the international scientific and educational space. To assess the criteria for the participation of foreign students and teachers, there is the QS World University Ranking (Top Universities, 2020), as well as the THE rating (THE, 2020), which takes into account the number of articles published in co-authorship with foreign research groups. The strategies of universities for implementation in the international educational space include the creation of open international campuses in other countries; attraction of foreign scientists, teachers and students to the educational process; support of academic mobility programs for own scientists and organization of foreign internships for students.

The conceptual model of a digital university consists of five levels and a supporting platform (Sidorov, 2017). The first level is represented by internal and external stakeholders (stakeholders) of the university, which include scientific and pedagogical workers, students, partners, graduates and applicants. The second level presents basic information services, the task of which is to create a single information space for digital interaction within the university using flexible tools: video screens for lectures and seminars, a wireless network throughout the university (including dormitories), cloud storage for storing and exchanging data, professional printing, etc. The third level includes services that significantly facilitate the life of students and academic staff in a modern university. These are digital libraries with access to scientific literature, regardless of the location of teachers and students. For added convenience, you can mix traditional and digital libraries. This convergence of traditional and new technologies provides a higher level of comfort for students and teachers and positively affects the image of the university. Unfortunately, in Russian universities this service is not as developed as in foreign countries and is at an early stage of development.

The digitalization of scientometrics consists in monitoring, accumulating and analyzing scientometric information using modern methods of storing and processing large amounts of data. This area is extremely important for universities as it serves two purposes (Stefanova & Shmatok, 2017). The first goal is to identify promising research areas that are currently most relevant for the university. The second goal is to determine the current indicators of publication activity and citation of the university. The most resource-intensive is the fourth level. It allows universities to receive the greatest added value. It includes the following services: digital marketing, research project management, procurement management.

Digital marketing is a new area for Russian universities aimed at solving the following tasks:

- organization of interaction with educational support staff, teaching staff, students, applicants, alumni using the modern spectrum of digital communication channels;

- monitoring social networks for the perception of the university brand by users; work on its improvement; carrying out various events to form a positive image of the university using marketing tools;

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- stimulating the creation of new digital communities and innovations at all stages of the educational cycle; establishing a communication process with students and applicants; familiarization with various educational programs and characteristics of student activities;

- analysis of personalized marketing materials in different sources and subsequent development, taking into account specific requirements;

- for effective interaction with applicants and students, it is necessary to use digital technologies in the admissions campaign. An undoubted convenience is online information about the stage of processing applications, tracking the stages of enrolment. Analytical analysis allows to identify the most promising applicants, to increase their enrolment ratio. For career guidance work, an undoubted advantage is the use of various communication channels in order to inform interested parties about the prospects of the university, about events. There is a real opportunity to increase interest in the activities of the university with the help of competent website promotion. This service is especially convenient for foreign applicants who form an opinion about the university, guided by information from the Internet. For students, conditions are created to facilitate the educational process, including automation of the work of the "student office"; development of information tools to identify gifted students, as well as those who do not succeed for a number of reasons.

And finally, the fifth level consists of digital technologies, which have appeared relatively recently and are gradually being introduced into the university environment. Such technologies, for example, include drones (unmanned aerial vehicles). This trend is already being observed in several American universities. It seems to us that the development of the Russian market in this direction is quite logical. It is especially important for technical universities to form laboratories, test equipment, stimulate researchers to be introduced into the internal educational and research space.

The transition to a digital university is impossible without supporting activities aimed at introducing changes in the university. Such activities may include:

- development of optional or compulsory modules within the framework of training programs aimed at increasing digital literacy among students;

- providing support to research and teaching staff working in the field of improving digital skills and actively introducing innovative teaching methods;

- encouragement of scientific and pedagogical workers using new teaching platforms to improve the quality of education and the efficiency of the university as a whole;

- helping less advanced academic staff to successfully master the skills of using digital technologies.

To move to the modern level, the university must adequately close all levels of the digital university model described above and constantly maintain feedback with key stakeholders – students, research and teaching staff, industry and academic partners, alumni, applicants.

3. Research Questions

Digitalization management in the educational environment is carried out with the help of digital marketing aimed at organizing interaction with educational support personnel, research and teaching staff, alumni, students, applicants using a range of digital communication channels; monitoring changes to form a positive image of the university; stimulating the creation of new digital communities and innovations;

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development of personalized marketing materials for target audiences. Considering all levels of a digital university, it is necessary to pay attention to digital marketing. The most important digital marketing tools are:

- content marketing (publications on thematic sites, in a blog, etc.);
- email marketing (mailing lists, which can also be part of content marketing);
- SMM (promotion of groups in social networks);
- targeted advertising on social networks;
- contextual advertising;
- media advertising;
- SEO (website promotion in search engines);
- partnership programs;
- university website;
- audio and video advertising (advertising in podcasts, online radio, etc.).

In Bulgaria, the use of marketing in the educational market is considered as “key” issues, including the use of digital marketing. Digital marketing at a university can be represented in several positions: website and its promotion; sub-sites and subsections of the main site of educational departments; e-mail, networks (blogs, Facebook, Twitter, Instagram, etc.) and other channels for interaction between students and teachers. An effective university website can guarantee the transparency of the educational and scientific activities of the university, direct answers to the requests of the target audience (applicants). The main criteria for evaluating a university website can be: design, navigation, content (content), interactivity (feedback), website visibility, etc. Based on the analysis of the site, according to the proposed methodology for assessing its effectiveness, it is possible to outline the main guidelines for the development of the university site and its representation in the Internet space. There are two ways to increase the competitiveness of the university by increasing the efficiency of the site: the quality of the site and its promotion on the Internet. One of the important management tasks is just to increase the efficiency of the university website to attract students, constant use in management practice of the main parameters for measuring the effectiveness of the website, the criteria for its assessment. Social media marketing, or social media marketing as part of digital marketing, is highly effective a tool for conducting vocational guidance work and promoting scientific and educational services in a virtual environment (Stefanova & Shmatok, 2019).

The system of digital marketing activities in education includes:

- marketing research;
- communication with subjects of the market of scientific and educational services;
- sales of scientific and educational services.

The sale of educational services in a virtual environment is carried out by the following methods:

- distance learning, the popularity of which is growing all over the world;
- use of distance courses on Internet resources for the elimination of academic debt, for example, in the process of training in double degree programs, or in the framework of academic mobility, etc.;
- posting on the Internet (including in the public domain), for example, in repositories or electronic libraries, electronic textbooks, guidelines, etc.;

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- placement on the websites of the university or their structural units of hyperlinks to electronic educational materials.

For transformation, it is necessary to develop skills in working with modern digital tools, to digitize certain areas or blocks of educational programs, to provide the university with the reputation of a modern innovative university that works in accordance with global trends and state development programs.

4. Purpose of the Study

One of the topical management problems of education is the transformation of higher education in the context of digitalization (Reyes, 2018). The aim of the study is to analyze current trends in education in the context of digitalization. The current economic and technological conditions require new modern approaches to mastering the key competencies of the digital economy. There is a need to create a conceptual model of a digital university with digital marketing. Digital marketing is a complex formation, within which areas are created, including digital marketing of the university. University digital marketing is marketing aimed at establishing contacts via the Internet with consumers of educational services, such as applicants, students and the internal audience of the university (teaching staff). The purpose of this article is to study the application of digital marketing of a university in the context of digital transformation of a university, to demonstrate the relationship between digital marketing of a university and competitiveness in the market for the provision of educational services.

5. Research Methods

The study is based on the analysis of domestic and foreign experience in understanding and forming digital universities, using the system and management processes in the context of the transformation of education and the development of digital marketing. The main methods of analysis include comparative analysis, methods of cognition, content analysis, methods of deduction and modeling as a method of scientific knowledge of socio-economic processes. The study also used methods of collection, analysis and interpretation of research information, general methods of scientific knowledge, such as system analysis, process analysis.

Analysis of the digital transformation vector of a university using digital marketing. The analysis revealed the main directions of modernization of the educational process based on the use of digital marketing technologies. The novelty of the research approach lies in determining the main directions of transformation of the educational process of the university in the context of digitalization of management processes using digital marketing as a necessary condition for competitiveness.

The main goal of digital learning is not technology, but that information technology as a method makes possible new things in learning and teaching. Information and communication technologies allow the use of learning-enhancing methods that cannot otherwise be put into practice. Digital learning introduces several pedagogically meaningful working methods for contact and distance learning. The focus of digital learning is on collaborative forms of work, both in contact and distance situations.

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6. Findings

To form a digital university system it is necessary:

- to form an understanding of modern digital trends in Russian education;

- determine what processes need to be transformed;

-vassess the possible risks of digitalization;

- develop a draft change and a plan for its implementation;

- to implement the project, bringing the university to a new digital level.

Currently, there is an acute problem of using models of competitiveness of digital universities.

OPM (online program management) is a model by which the world's leading universities, including Arizona State University and Penn State University, create online educational programs in partnership with private EdTech companies. By 2025, the volume of this market promises to reach $ 7.7 billion. At its core, OPM is a business model and type of service that helps educational institutions rebuild the processes of creating online programs: design, implementation, promotion. Working with OPM helps universities go online faster and conquer this market: on it they can expand their geography and get a huge number of new students from all over the world, and due to the trust in the university as a fundamental institution with an official diploma, they can squeeze online education. from private companies. There are a dozen large companies in the United States that are engaged in this, one of the most famous is 2U, it works for 30 large universities at once, and its capitalization is now estimated at $ 3.1 billion. There are no such companies in Russia yet - the market is just beginning to form.

Today, to launch a modern educational product, it is not enough to record lectures on video and organize classes on the platform for webinars. The difficulties that the university faces on this path are quite many:

- pedagogical design - online it differs from the classic;

- creating infrastructure, choosing a platform, understanding what platform solutions are, and the possibilities of their integration for the design of educational experience;

- educational analytics: a system for tracking students' progress, analysis of the effectiveness of the tasks themselves, constant revision of educational material based on the accumulated data;

- selection and attraction of experts, lecturers, mentors; • employment of graduates, constant direct connection with the labor market and understanding of its needs; • marketing: market research, attracting students, promoting educational programs.

OPM companies help universities with all these tasks. Moreover, the amount of work that the university entrusts to such a contractor can vary from the complete development and launch of a turnkey curriculum to individual aspects - for example, setting up a career center for the program, setting up coaching in the educational process, or helping with setting up educational analytics. In the American and some other developed markets, universities are able to attract clients, engage in fundraising, build endowment funds, and OPM plays a supporting role for them. In Russia, these practices are poorly developed – our universities do not have the necessary experience, in a market economy they have existed only for the last 30 years.

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7. Conclusion

The success of digital transformation usually depends on the capacity of human resources, digitalization of educational services and the development of digital infrastructure. Undoubtedly, the Digital University will become a catalyst for the growth of the quality of education. The main areas of research and the formation of digital transformation of the university are:

- key trends accelerating technological transformations in higher education (development of a culture of innovation, cross-institutional and cross-sectoral collaborations, development of open educational resources, new forms of interdisciplinary research, focus on measuring learning outcomes, redesign of educational spaces);

- development of digital competencies, understanding of digital environments, adaptation to digital contexts, educational strategies for the development of digital competence, movement towards digital equality;

- digital transformation and new roles of educators (architect, guide, designer, facilitator, assessor);

- innovative projects for the development of digital competencies;

- digital disciplines; educational landscape; the relevance of the formation of digital competencies among university graduates, international and Russian experience in training and teaching digital, specialized educational programs in Digital disciplines; methods of designing a digital trajectory course.

Digital competencies in education should be aimed at:

1. Improving the use of digital technologies in teaching and learning.

2. Development of the skills required for digital transformation.

3. Analysis and forecasting based on data in education.

The digital transformation of the education system of the Russian Federation will allow solving a number of important tasks: access to all educational processes and services in a “single window”; ensuring equal opportunities for students to demonstrate their abilities; the ability to actively influence the educational process; simplification of procedures for the compilation and maintenance of individual learning paths; obtaining accurate data for personalized financing; the possibility of effective financing of educational institutions, including for the purpose of training future staff; the possibility of using the technology of "digital footprint" of students for the selection and individual support of future employees. The digital transformation of education is possible only if there is a high literacy of teachers in the field of modern information technologies. Thus, an effective digital transformation of education should contribute to solving the following problems:

-forming a set of competencies among teaching staff;

-forming a set of competencies among students;

- the introduction of new technologies into the educational process;

- increasing the motivation of students to acquire new knowledge and acquire skills, including programming skills, which are critical for a qualified specialist in the digital economy.

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