

PRESENTATION OF THE OPPORTUNITIES FOR DIGITIZATION IN THE BULGARIAN SCHOOL THROUGH THE EDUCATIONAL PLATFORM "SHKOLO": TRENDS AND PERSPECTIVES

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Abstract: This article explores the shift towards digitization in Bulgarian schools, with a focus on the role of the educational platform "Shkolo." Educational institutions in Bulgaria are compelled to adapt to the challenges of digital transformation—a crucial aspect of the policy for constructing the European Education Area (EEA). The European Commission, in its Digital Education Plan for the period 2021-2027, emphasizes the importance of implementing policies and measures across various areas, including infrastructure improvement, strategic development, leadership, development of digital skills for teachers, students, and parents, content creation, curriculum development, assessment, and establishment of national legal frameworks. These initiatives are aimed at targeted use of modern technologies and the development of digital skills among participants in the educational process.

The article focuses on the means, methods, and forms of digitization provided by the "Shkolo" platform, which has been one of the leading software companies in the Bulgarian market for several years. The shared best practices implemented by the management and team of the Professional High School of Energy and Electrical Engineering in Galabovo, Bulgaria, serve as evidence of the platform's impact and success. Part of the future perspectives for software development in "Shkolo" is described, envisioning how it could contribute to the continuous digitization of education in Bulgaria. The discussion also addresses the growing challenges faced by teachers, students, and parents in the digital educational environment.

The article draws attention to the framework of the European Commission's Digital Education Plan, highlighting its role in shaping the digital educational environment in Bulgarian schools. It underscores the need for adaptive strategies in response to the outlined policies, ensuring seamless integration of digital tools and methodologies. The interaction between national legal frameworks and the dynamic educational environment is analyzed, considering potential difficulties and opportunities for stakeholders. The article's author recommends a comprehensive approach to digital education in Bulgaria, acknowledging the importance of collaboration between educational institutions, legislators, and technology providers. Embracing the evolving digital environment presents an opportunity not only to improve the educational experience but also to develop fundamental digital skills for teachers, students, and parents, aligning with the broader goals of the European Education Area. The multifaceted nature of digitization, its ongoing impact on education, and the necessity for collaborative efforts for successful digital transformation are emphasized.

Keywords: digitization, educational platform, Shkolo, digital skills

1. INTRODUCTION

Educational institutions in Bulgaria must respond to the challenge of digital transformation in line with the policy of building the European Education Area (EEA). The European Commission (European Commission, 2020b) has developed the Action Plan for Digital Education 2021-2027. The action plan emphasizes the importance of implementing policies and measures in various aspects, including improving infrastructure, strategies and leadership, developing digital skills for teachers, students, and parents, creating content and curricula, assessment, and establishing national legal frameworks. This is done with a view to the targeted use of technologies and the advancement of digital skills for teachers, students, and parents.

For several years, the educational platform "Shkolo" has been present on the Bulgarian market, leading the process of digitizing education in Bulgaria.

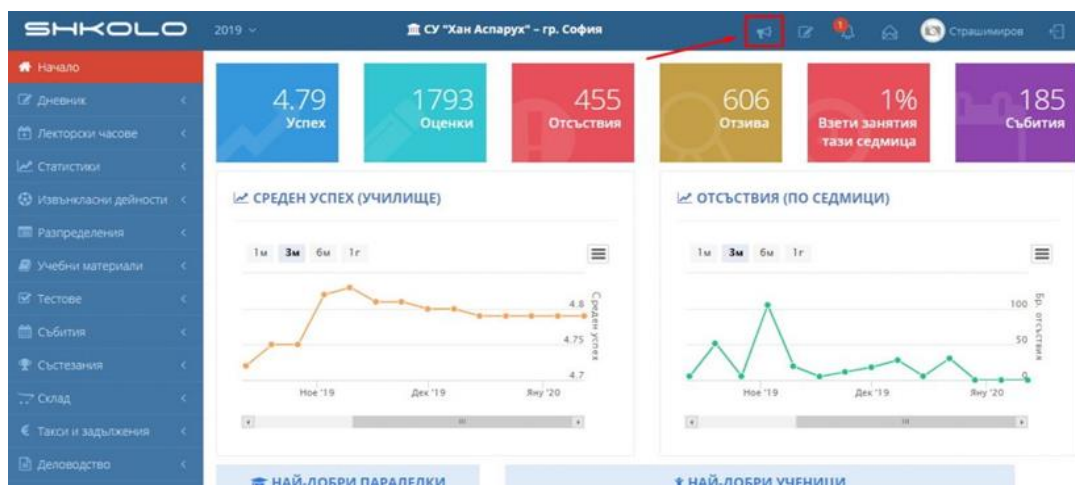
2. POSSIBILITIES FOR DIGITIZATION THROUGH THE EDUCATIONAL PLATFORM "SHKOLO"

One of the main opportunities provided by the "Shkolo" software system is related to reducing bureaucratic and administrative processes. The Professional High School of Energy and Electrical Engineering in town of Galabovo, Stara Zagora region, is one of the first vocational high schools to use the digital electronic diary. The digital format integrates the class schedule, lesson plans, topics for respective subjects, and the lesson format, as well as the attendance and absences of students and teachers, including their substitutes. All orders issued by the director of the

educational institution are addressed to the teaching staff. There is an opportunity for messages to be sent to the collective, to individual members of it, to all students, or selected classes, as well as to parents.

During the control and assessment of students' knowledge, the platform has the capability to input various types of grades: from oral and written examinations (class and midterm exams) to ongoing, immediate, and annual assessments, as well as grades from comparative, remedial, and state exams. An exceptionally useful tool is the built-in calculator, which quickly and accurately calculates the number of absences and the overall performance, both individually for each student and collectively for the entire class. At the end of the academic year, the information is automatically transferred to the student's individual record.

Fig. 1. Initial interface of the educational platform "Shkolo"



One of the main goals set by the educational platform team is the implementation of digital communication with parents. It is created with easy and convenient software applicable for installation on their smart devices. Through mandatory registration on the platform's website, parents have the opportunity to communicate with the class teacher, teachers, and the school management. They can monitor attendance in regular classes and extracurricular activities, track their children's progress in educational activities, and receive information about difficulties, praises, encouragements, and notes.

Gamification of the learning process is integrated into the "Shkolo" website through modern technological means. It involves the incorporation of games, gaming elements, and ideas into the classroom that impact the emotions, feelings, thoughts, and behavior of participants to achieve planned educational goals. The primary elements of gamification implemented in the platform are badges, points, rewards, and emoticons.

The electronic tests that teachers can create through the educational software offer numerous possibilities: for in-class or homework assignments, with a limited or unlimited time frame, the option to shuffle questions and answers, embedded images or graphics, and automatic calculation of the grade based on predefined criteria. After completing the knowledge assessment test, students and their parents have access to the obtained results. The teacher receives information not only about each student's performance but also about the overall class achievement. This, in turn, facilitates a quick analysis of the results achieved, as well as summarizing quantitative and qualitative data.

In the "Statistics" module, information is provided (accessible to teachers, students, and parents) regarding the student's achievements in a specially designed ranking system at the class, graduation year, school, city, and national levels.

The teachers from the Professional High School of Energy and Electrical Engineering in Galabovo share that the "Competitions" module is extremely convenient for them as well. In this section, the participation of students and their results in internal and national competitions and Olympiads are tracked.

The platform provides access to a digital repository. According to the Director of the Professional High School of Energy and Electrical Engineering in Galabovo, this is the path through which digitization in education should take place, by digitizing not only educational documentation but also the administrative and financial aspects. The digital repository encompasses all assets of the school and manages them from a single location. It facilitates tracking the movements of assets and changes in their status in a digital environment.

The educational platform "Shkolo" provides the opportunity to create and exchange digital didactic materials. Teachers can exchange digital resources among themselves, both within the same school and across the country. The

exchange can take place between teachers nationwide. Educational materials can be created in several formats: MS Word, MS PPT, MS Excel, PDF, JPEG, etc. Students also have the freedom to exchange digital educational content, such as tests, essays, presentations, projects, etc. (Shkolo, 2023).

Automatic notification of parents and students about upcoming events (class or test, parent-teacher meeting, excursion, state exams, etc.) is carried out through the entered information in the "Events and Calendar" module.

3. TEACHERS' ACADEMY

The platform provides opportunities for the selection and inclusion of teachers in training courses related to improving their qualifications. The trainers at "Shkolo" are experts in the field of training pedagogical specialists. During the training process, teachers have access to online consultations, support, and assistance. At the end of the training course, certificates for successfully acquired qualifications are generated, automatically stored in the "Portfolio" module. This is a tool connected to the embedded certification of pedagogical specialists in the country, promoting leadership in educational environments. The portfolio provides information about personal data, educational background and qualifications, achieved results, teaching philosophy, motto, future plans, and more. This entire set of information is in digital form, integrated into the educational platform "Shkolo."

4. LESSONS FOR STUDENTS

The educational software team has developed a module focused on extracurricular learning. Students can choose from 20 subjects, expressing preferences for a specific teacher. The learning process takes place in a virtual classroom. The student selects the place and time for the extra lesson. The service covers both individual lessons and specially designed packages for group lessons. In this case, the progress of learning can be tracked by both the student and their parents.

5. DATA STORAGE

All data from previous years are stored in the system for a period of five years. During this period, queries can be made based on the entered data at any time.

6. PERSPECTIVES

The main goal set by the "Shkolo" platform team is related to the digitization of educational processes carried out in Bulgarian schools. A part of the planned developments is associated with:

- the possibility to organize digital individual parent meetings in the Virtual Classroom,
- digital profile of the student,
- application of a competency model in a digital environment when assessing students' knowledge and skills,
- class wall (digital tool),
- digital module "Homework";

7. CONCLUSIONS AND SUMMARY

Having conducted a review of the structure, capabilities, prospects, and trends in the field of digital transformation in Bulgarian education through the educational platform "Shkolo," and considering the good practices and shared experience from the leadership and team of the Professional High School of Energy and Electrical Engineering in Galabovo, the following conclusions can be drawn:

- Digitization contributes to reducing the administrative burden in Bulgarian schools.
- Through "Shkolo," generating reports is done in a much shorter time, more easily, with technical precision, and with visually improved formatting.
- "Shkolo" facilitates communication with parents and students.
- The platform stimulates the interest and activity of the students.

Digitization in schools is a natural path dictated by the digital era we live in. It takes time to digitize the entire education sector. It is a fact that businesses are helping educational institutions make this happen. One of the software companies in Bulgaria working on the digital transformation of education and striving to meet the requirements of the European Commission's Digital Education Action Plan 2021-2027 is "Shkolo."

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