Science, Engineering & Education, 10, (1), 2025, 123-130

Digitalization and Sustainability in Education

Lora Dimitrova*, Stanimira Petrushkova

National High School in Finance and Business, 1 Rozova Dolina St., Sofia 1421, Bulgaria

Received 27 May 2025, Accepted 17 June 2025
DOI: 10.59957/see.v10.i1.2025.17

ABSTRACT

This article examines the digitalization of educational activities. Achieving sustainability in education through digitization is considered. The emphasis is on digital technologies that optimize the learning process and make learning innovative, creating the opportunity to work with diverse automated applications.

Keywords: digitalization, sustainability, education, online platforms, applications.

INTRODUCTION

Modern technologies play a key role in the transformation of the educational system and lead to significant changes in teaching and learning methods. The integration of various digital tools in the educational process creates the concept of developing 'smart schools'. Contemporary technologies are applied to structure the learning process to be more engaging and accessible for students. Schools are not limited to the use of computers and the internet but apply a variety of applications and platforms that facilitate the personalization of education, ease communication between students and teachers, and provide new opportunities for assessment and monitoring of progress. A new young generation with digital knowledge and experience is being built, which meets the goals of sustainability in education.

EXPERIMENTAL

This article discusses methods for direct research and practical work with digital tools in the field of education and business. The possibilities and functionality of working with digital platforms and applications such as Google Workspace, SmarTest, Shkolo, Canva, Microsoft PowerPoint, and others.

RESULTS AND DISCUSSION

Google Account and Google Workspace applications package

When creating an email address in the Google platform, each user receives free access to Google applications, which becomes extremely accessible for users, including teachers and students. The free package includes Google Docs, Google Sheets, Google Forms, Google Classroom, Google Meet, and others. The article

**Correspondence to Lora Dimitrova, National High School in Finance and Business, 1 Rozova Dolina St., 1421 Sofia , Bulgaria, e-mail: lora.l.dimitrova@nfsg-sofia.org*

examines some of the applications not only to understand their functions but also to make the best use of them in practice [1].

Google Forms

A widely used tool is Google Forms, which offers the ability to create surveys and tests. With the help of Google Forms, teachers can collect data on student progress, administer tests, surveys, and feedback questions regarding the learning process, and track the individual results of each learner. Students can use the application to conduct various research projects and reports. This tool is extremely useful for collecting information and providing quick statistics, facilitating both teachers and students. Its flexibility allows not only an assessment of knowledge but also a collection of data on the development of social skills and other aspects of education.

Fig. 1 presents the average size and range of distribution of points in the conducted study.

SmarTest

SmarTest is an online platform for creating and solving tests. The platform offers the ability to create various types of tests for students to complete and receive real-time feedback. The tests can be configured in a way that meets the specific needs of the study material, providing objective and automated assessment of students' knowledge [2].

Fig. 2 shows the digital platform of SmarTest. By using SmarTest, the process of analysing results is facilitated. Teachers receive detailed reports that can help better understand students' strengths and weaknesses.

Educational games

Kahoot is a popular online platform for creating games and quizzes. It is used in education, business, and other fields for training and engagement. It offers the possibility to create games with questions and answers on various topics. Each game is played in real-time - participants use mobile devices or computers. The platform includes a variety of question formats such as multiple choice, true/false questions, ordering questions, and open-ended questions that teachers can adapt to the needs of students for assessment and self-assessment. After the game concludes, the platform provides detailed statistics and feedback that help track students' progress. Kahoot also offers paid plans that include additional customization features and analytics. The platform is available in multiple languages and works on various devices, making it easily accessible and universal for use in different educational contexts. It is one of the interactive teaching applications that makes

Fig. 1. Distribution of common points.

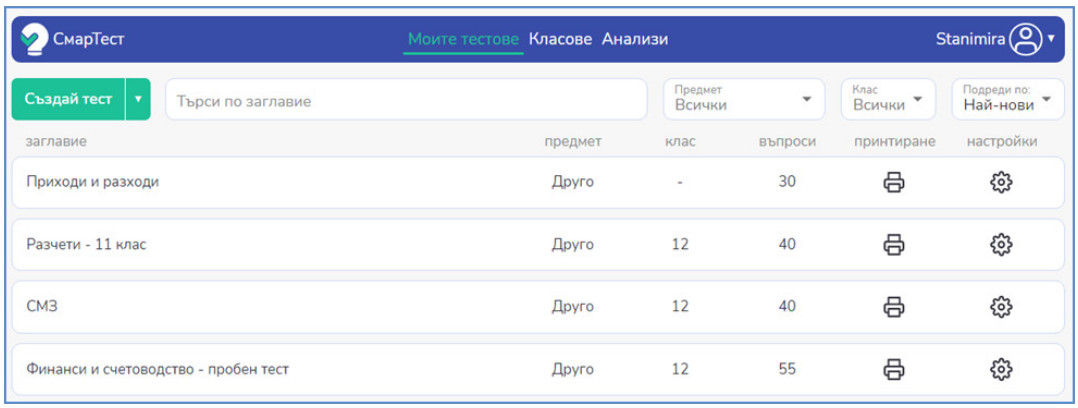

Fig. 2. SmarTest online platform for creating and solving tests.

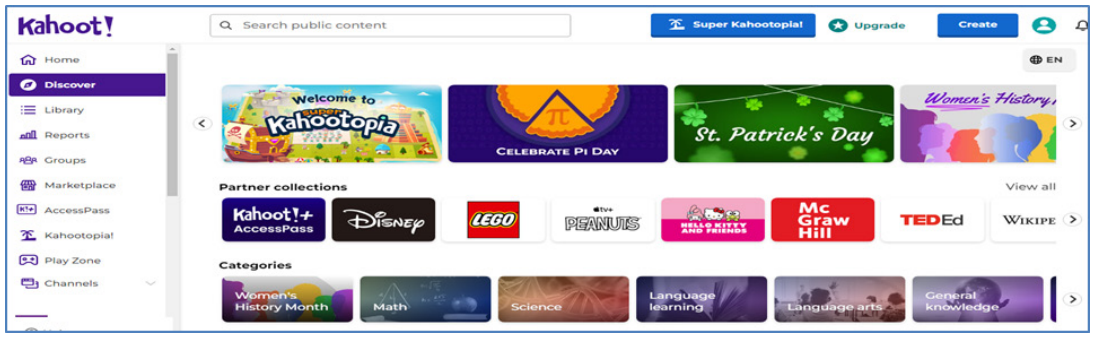

Fig. 3. Kahoot online platform for creating games and quizzes.

learning new things and testing easier and less stressful. Students focus on the game and are more enthusiastic and confident [3].

Fig. 3 presents the Kahoot online platform for creating games and quizzes.

Online work with Google Classroom and Google Meet

The Google Classroom platform plays an important role in modernizing education and offers an integrated interface for distributing educational materials, group communications, assigning exercises, and checking knowledge. Google Classroom, presented in Fig. 4, allows additional resources such as video lessons, assignments, and tests. Students can submit their responses, receive comments, and feedback. Work on the platform is conducted in real time.

An option for online connection and learning via Google Meet has been established. This creates a dynamic and interactive learning environment that can meet the individual needs of students. Fig. 5 presents the Google Met platform. The advantage of the electronic classroom is that it allows for rhythmic work under emergency conditions, optimizing the study schedule, and enabling online work.

The educational material is not lagging, and the training is proceeding according to the planned schedule. Teachers and students connect online for consultations, clubs, and other extracurricular activities in the comfort of their

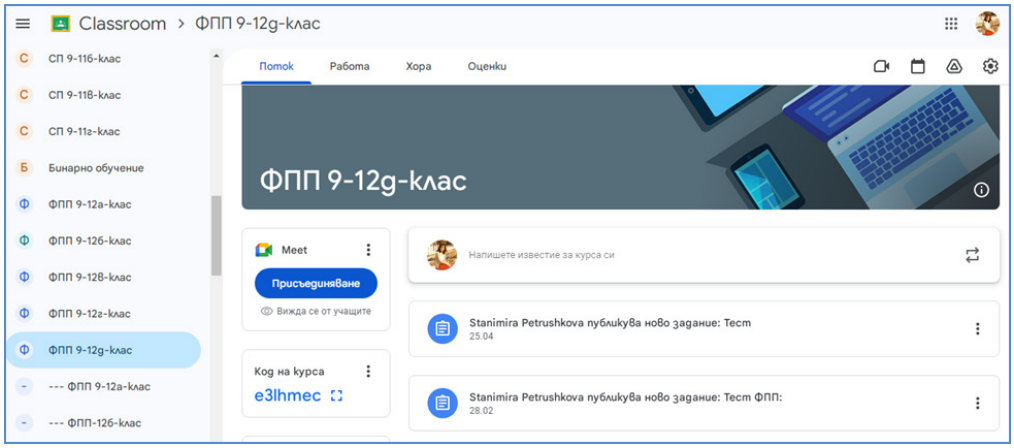

Fig. 4. The Google Classroom platform.

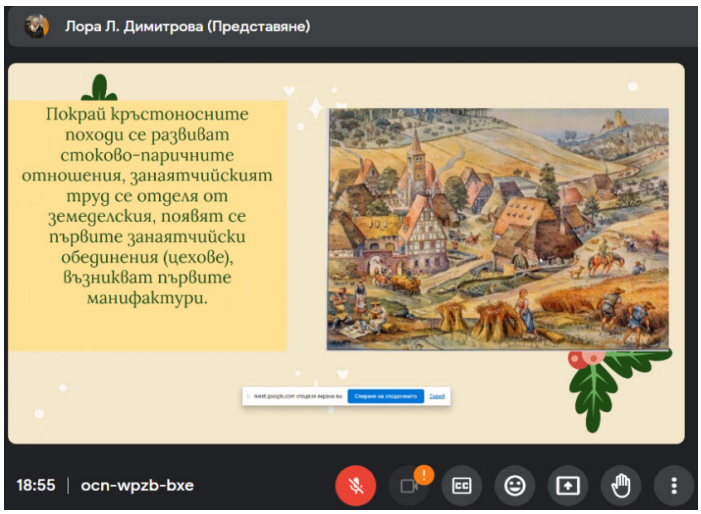

Fig. 5. Online connection and training in Google Meet.

homes, saving time as well.

Through Google Classroom and Google Meet, educators, students, businesses, and institutions from various parts of the country and the world communicate, facilitating the exchange of experiences and interaction with people who cannot meet face to face.

Educational electronic platform Shkolo

Shkolo is a Bulgarian online education platform that facilitates the management of the educational process and communication between teachers, students, and parents. The platform, presented in Fig. 6, allows the uploading of assignments, tests, grades, and feedback. It provides an opportunity to monitor students' progress in real time. Parents have access to the electronic diary, where they can track their children's achievements and absences. Students receive their grades in real-time, as well as information about the educational process and development opportunities. The platform offers a schedule of written assessments, maintains the weekly program, conveys information and messages about parent meetings, and performs other functions that can be used according to the

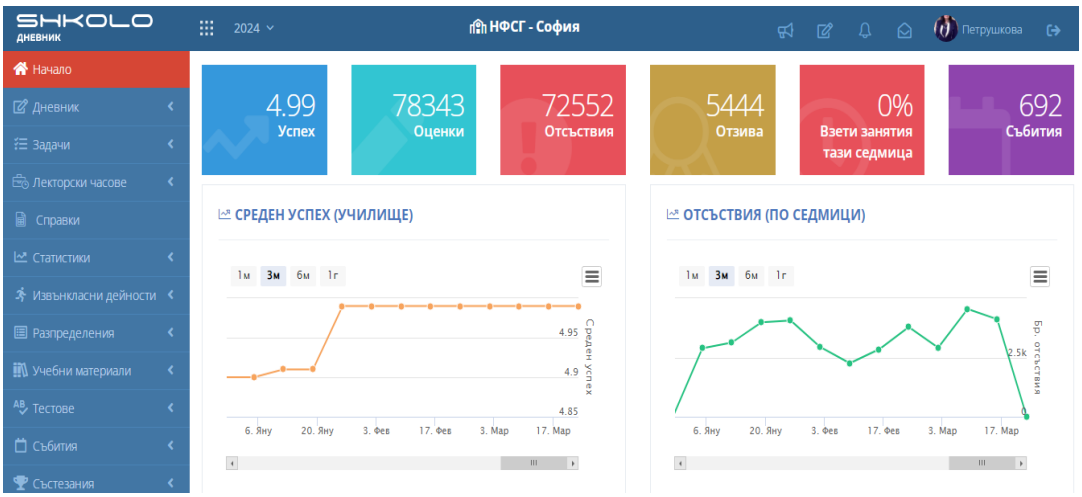

Fig. 6. Online education platform Shkolo.

Fig. 7. Training presentation on the Canva platform.

needs of each school [4].

Graphic design platform Canva

Canva is an online graphic design platform that offers easy-to-use tools for creating various visual materials such as presentations, posters, infographics, social media, and more. The platform is popular among teachers, students, and professionals due to its simple and user-friendly interface, as well as its wide library of templates, images, fonts, and icons that can be customized. Canva allows for the recording of audio and video for created presentations or other materials.

Canva offers both free and paid options. The free version of Canva provides enough resources to create high-quality designs. It is suitable for creating educational materials, visual projects, marketing campaigns, and at the same time allows easy sharing and collaboration with other users [5]. Fig. 7 shows a training presentation “Fixed Assets” on the Canva platform.

Electronic presentations

Google Slides and Microsoft PowerPoint are two of the most popular presentation platforms, each offering unique advantages and

functionalities depending on the users' needs and preferences.

Google Slides stands out with its ability for real-time collaboration, suitable for teamwork. Thanks to its integration with Google Drive, every change is automatically saved in the cloud, allowing easy access and editing from anywhere with internet connectivity. This makes Google Slides an extremely convenient tool for modern students, teachers, and business teams who need easy sharing and coordination of presentations in a dynamic environment. The platform is free, making it accessible to everyone without the need to install specialized software.

Fig. 8 presents a training presentation "Prosecutors and Investigators" on the Google Slides platform.

Microsoft PowerPoint is a long-standing market leader and offers a significantly larger set of features for creating visually appealing and complex presentations. PowerPoint allows users to utilize multiple templates, animations, transitions between slides, and multimedia elements such as images, video, and sound. This platform is extremely powerful when it comes to creating detailed and professional presentations that include complex graphics and special effects.

PowerPoint offers collaboration opportunities, especially when used with OneDrive, and allows multiple users to edit and share the presentation simultaneously. Although PowerPoint is a paid software, its popularity among professionals and educational institutions makes it preferred for long-term projects and presentations with a high degree of visual impact.

Fig. 9 shows a presentation "Financial and Accounting Education and Sustainable Development" on the PowerPoint platform.

Both platforms are widely used in various fields, from the educational process to corporate meetings, with each having its own advantages and limitations. Google Slides is an excellent choice for those who seek easy sharing, collaboration, and easy access. PowerPoint is the best choice for creating complex and visually impactful projects that require more customization and intricacy. Despite their differences, both platforms share one main goal - to help users create effective and professional presentations that will impress their audience.

Websites

Google Sites is a free tool for creating and managing websites. It is part of the Google Workspace apps and allows users to build, customize, and publish their sites easily. The

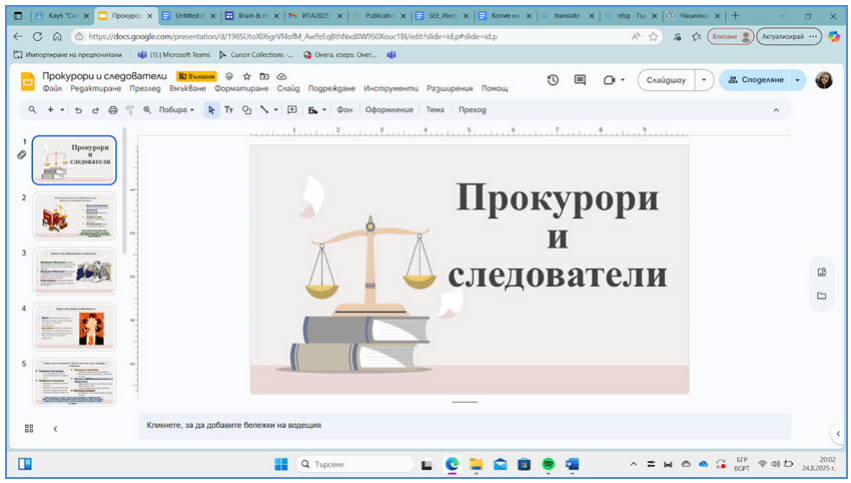

Fig. 8. Training presentation on the Google Slides platform.

Fig. 9. Presentation on the PowerPoint platform.

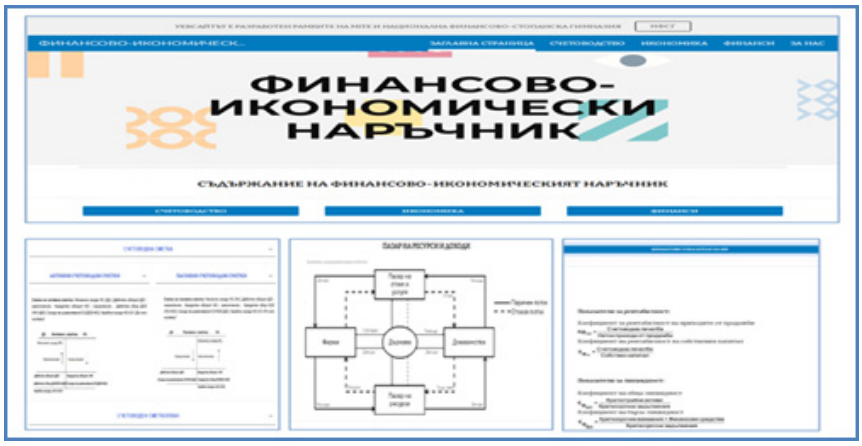

Fig. 10. Education Website on the Google Sites platform.

platform offers a user-friendly interface that includes templates that can be adapted to the user's needs. With the help of Google Sites, users can create various types of sites - from personal and educational to business and organizational. It is possible to integrate content from other Google apps such as Google Docs, Google Sheets, and Google Calendar. Fig. 10 presents a website for educational purposes "Financial Handbook" on the Google Sites platform.

One of the main advantages of Google Sites is the ability to easily share and collaborate in real-time. The site can be shared with other users who can edit or view it, providing complete control over access and editing rights. This makes it particularly useful for creating websites for team projects, educational platforms, or group initiatives. The platform is also integrated with Google Drive, making it easy to add documents and multimedia elements to the site.

Fig. 11 presents a developed website for educational purposes "Healthy Lifestyle" on the Google Sites platform of Google Workspace.

Creating a website with Google Sites is simplified by a visual editor that allows to add elements to the pages. The platform also offers options for mobile optimization and ensures that the sites will perform well on phones and tablets. Google Sites is ideal for creating internal websites for organizations, educational purposes, creating educational portfolios, group, and personal pages.

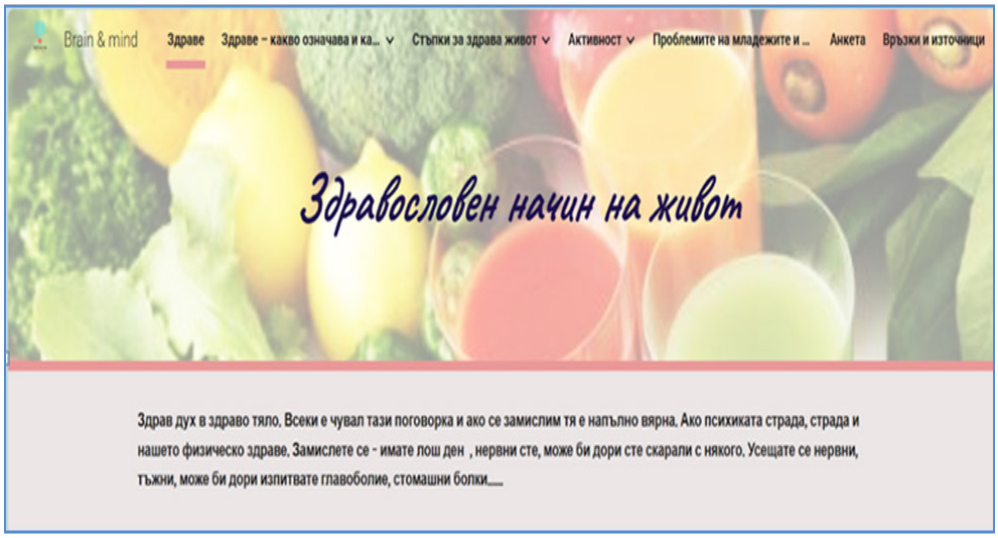

Fig. 11. Website on the Google Sites platform of Google Workspace.

CONCLUSIONS

The use of various technologies, platforms, and applications, such as Google Slides, Microsoft PowerPoint, Canva, Kahoot, Google Sites, Shkolo, and others, plays a key role in modern education, providing new opportunities for students and teachers. These platforms significantly enhance the learning process, facilitate collaboration, communication, and real-time information sharing. Through them, a more engaging, interactive, and personalized learning environment is created, allowing for both effective teaching and an individual approach to the needs of the students. The ability to create presentations, visual projects, tests, websites, and webinars on easily accessible digital platforms is extremely beneficial. It increases the motivation for learning and practical activities and develops many important skills for working with digital technologies. Applications that integrate cloud technologies offer flexibility and accessibility, which is particularly important in the context of distance learning and the globalization of education, the sustainability of education, and the overall functioning of modern society.

Digital tools prepare the younger generation for the future and provide them with the necessary knowledge and skills for working in business and thriving in the digital world. Using digital technologies, young people learn to be creative, to think critically, and to work in teams, which is essential for their future development. The examined digital applications not only enhance the learning process but also help adapt teaching to the needs of modern communications and business, development strategies, goals, and the UN's requirements for sustainability in education.

REFERENCES

1. Google, https://www.google.com/. avaible 11.11.2025.
2. Smartest, https://www.smartest.bg/. avaible 11.11.2025.
3. Kahoot. https://kahoot.com/. avaible 11.11.2025.
4. Shkolo, https://www.shkolo.bg/. avaible 11.11.2025.
5. Canva, https://www.canva.com/. avaible 11.11.2025.