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Policies and Challenges of Education after the Pandemic in Albania, Integration of Technological Tools in Educational System

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Abstract: The education system has developed over time. Its development has been influenced by national and international policies and strategies, technological development, etc. But even the pandemic period has had an influence to the change and development of teaching and learning techniques and processes, adapting to the evolving requests. Today, it is necessary for the school/university environment to be equipped with technological infrastructure. The use of technological tools and information systems is becoming increasingly important. Nowadays, the ability to manage and create knowledge through technology is critical to the future of students. Many platforms have been created that help and emphasize the importance of using technological tools during the teaching and learning process to increase its efficiency. Improving the quality of the education system is achieved by increasing the teaching capacity for students, which means more qualified staff, updating didactic materials in line with technological developments and transforming auditoriums into resource centers for promoting the professional development of lecturers/teachers. In this paper we will study, technological development and its inclusion in the educational system, as a support to the teaching-learning process, and the challenges encountered in everyday life. An important element for the further development of the educational process and the updating of curricula, is the national and international strategy policy.

Keywords: learning management systems; education system challenges; data mining tools; curriculum; and learning-teaching process

1. Introduction to Policies and Challenges of Education

Education is the process where we gain knowledge, skills, values, attitudes and sensitivities needed to function effectively in society2. It is the process of teaching, training, and learning, especially in schools, colleges, or universities, to improve knowledge and develop skills. Nowadays, education is not limited, there are no borders and distances, and it is accessible to everyone. Today, we live in the information society, rounded with big data, with a big use of technological tools and methods and the expansion of communication and information facilities. The characteristics of a society include: high density of information in the lives of most citizens; the use of compatible technology in a wide range of personal, social, educational and commercial activities; and the ability to transfer and receive digital data quickly between different locations regardless of distances. Education faces different policies and challenges

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[2] https://www.kurerie.com/blog/education-and-development-challenges-facing-educational-systems-globally.

globally. One of the fundamental challenges is ensuring equal access to education for all, irrespective of socio-economic background, gender, ethnicity, or geographical location, ensuring that the students will receive quality education, well-trained teachers, updated curriculum, adequate resources, adequate infrastructure etc. Lecturers/Teachers are the backbone of the education system, so they should be well-trained, motivated, and supported for effective learning outcomes. Continuous professional development programs are necessary to keep lecturers/ teachers updated with modern teaching methodologies. While technology offers immense potential to enhance learning experiences, its integration into education comes with challenges. Issues like the digital divide, ensuring equitable access to technology, and addressing concerns about screen time and online safety need to be addressed. The concept of education is no longer confined to formal schooling. Lifelong learning is becoming increasingly important in a rapidly changing world where individuals need to continuously acquire new skills and adapt to evolving job markets. Addressing these challenges requires coordinated efforts from governments, policymakers, educators, parents, and communities to ensure that education remains a catalyst for individual growth and societal development. Some of these challenges we can list below:

- Education and society;
- Teachers/ Lecturers quality;
- Education process quality;
- Education and technological methods;
- Curricula.

There is no doubt that the pandemic has had a huge impact on the education system. During the pandemic many of challenges mentioned above were discussed and faced with a quick solution. This process discussed the performance and quality of the education system. The challenges of the educational system include the need for new teaching methodologies to adapt to technological advancements. The diagram below represents the process of challenge exploration and solution:

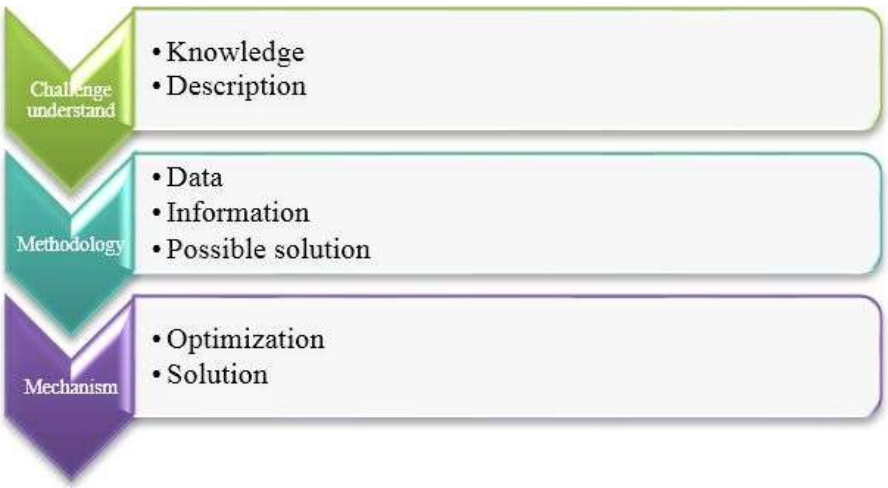

Figure 1. The Process to Understand & Solve The Challenge

2. Policies and Challenges of Education After the Pandemic in Albania

The pandemic has significantly impacted education systems worldwide, leading to a host of policies and challenges that need to be addressed. Addressing these policies and challenges will require collaboration among policymakers, educators, parents, and communities to ensure a resilient and equitable education system in the post-pandemic era. In the post-pandemic era, the education system is likely to undergo

significant transformations to adapt to the lessons learned during the crisis. The pandemic has demonstrated the need for flexibility in learning environments. Educational institutions may adopt hybrid models that combine in-person and online learning to accommodate diverse learning preferences and circumstances. Here are some key points that we can mention:

1. Hybrid Learning Models: Many educational institutions have adopted hybrid learning models, combining in-person and online instruction, implementing effective strategies for hybrid learning;
2. Remote Learning Infrastructure: The pandemic highlighted the importance of robust remote learning infrastructure. Policymakers need to invest in technology, internet connectivity, and digital literacy training to support remote learning initiatives;
3. Learning Loss: Extended school closures and disruptions have resulted in learning loss for many students, particularly those from marginalized communities. Education systems must implement targeted interventions and support programs to address learning gaps and ensure educational equity;
4. Teacher Training and Professional Development: Teachers have faced unprecedented challenges during the pandemic, requiring them to adapt quickly to new instructional methods and technologies;
5. Equity and Access: The shift to remote and hybrid learning has highlighted existing disparities in access to education, including disparities related to socioeconomic status, race, ethnicity, and geographic location. Policymakers must prioritize equity in education and address systemic barriers to ensure all students have access to quality learning opportunities;
6. Reimagining Education: The pandemic has prompted discussions about reimagining education for the future. This includes exploring new instructional models, emphasizing skills like critical thinking and adaptability, and fostering lifelong learning opportunities beyond traditional classroom settings.

The integration of technology into education, this may involve incorporating digital tools and resources into curriculum design, as well as providing professional development opportunities for educators to enhance their digital literacy skills. Adaptive learning platforms and data-driven instructional strategies can help educators personalize learning experiences and support student success. Hands-on, project-based learning experiences may gain prominence in the post-pandemic era as educators seek to engage students in meaningful, real-world learning opportunities. Experiential learning approaches can foster creativity, critical thinking, and problem-solving skills while making learning more relevant and engaging for students. The pandemic has underscored the need for students to develop resilience, adaptability, and growth mindset skills to navigate uncertain and rapidly changing environments. Education systems may integrate opportunities for students to develop these skills through curriculum, extracurricular activities, and support services. Education systems may implement policies and initiatives aimed at closing achievement gaps, ensuring equitable access to resources and opportunities, and creating inclusive learning environments for all students. Overall, the post-pandemic education system is likely to be characterized by innovation, flexibility, and a renewed focus on supporting the holistic development of students to thrive in an ever-changing world. The Albanian educational system has been involved under significant reforms, particularly after the pandemic. Education system in Albania is organized in different phases:

Structure:

- Pre-primary Education: Optional for children aged 3 to 6.
- Primary Education: Compulsory for children aged 6 to 14, lasting for nine years.
- Lower Secondary Education: Lasts for three years, typically for students aged 14 to 17.
- Upper Secondary Education: Lasts for three years, divided into general or vocational tracks.
- Tertiary Education: Includes universities, vocational schools, and colleges.

Reforms and Challenges:

- Curriculum Reform: Efforts have been made to modernize curricula and teaching methods to align with European standards.
- Quality Enhancement: Initiatives aimed at improving the quality of education and infrastructure.
- Teacher Training: Focus on professional development and enhancing teaching skills.
- Inclusion: Efforts to improve access to education for marginalized groups, including Roma and children with disabilities.
- Language of Instruction: Albanian is the primary language of instruction, but there are opportunities for learning other languages, particularly English.

Higher Education:

- Universities and Colleges: Offer a wide range of programs in various fields.
- International Collaboration: Increasing partnerships with foreign universities and institutions.
- Research: Efforts to promote research and innovation in higher education institutions.

Challenges:

- Resource Constraints: Limited funding and resources pose challenges for improving infrastructure and quality.
- Access and Equity: Disparities in access to education, particularly in rural areas and for disadvantaged groups.
- Quality Assurance: Ensuring quality standards across all levels of education.
- Youth Emigration: Brain drain due to limited opportunities and better prospects abroad.

Overall, while Albania has made strides in reforming its educational system, there are still challenges to address, particularly regarding quality, access, and alignment with international standards.

Table 1. The Challenges of Education System in Albania

Education system in Albania	**Structure**	Pre-primary Education	Primary Education	Lower Secondary Education	Upper Secondary Education	Tertiary Education
	Reforms & Challenges	Curriculum Reform	Quality Enhancement	Teacher Training	Inclusion	Language

3. Methodology

We used a qualitative approach to evaluate integration of technological tools in education system:

- We have done discussions, meetings, with stakeholders to identify a potential sample of areas at universities where the technology was implemented successfully;
- We made a literature review of previous research, to add contextual understanding from previous implementation studies;
- We have identified HEIs that had implemented new technology well;
- Exploring the process of implementation and identify key success factors.

4. Integration of Technological Tools in Educational System

The integration of technological tools in the educational system has become increasingly prevalent, offering numerous benefits to both lecturers/teachers and students. Here are some ways in which technology is being integrated into education, digital learning platforms, educational apps, data analytics, online assessment etc. Educational institutions are utilizing digital learning platforms to deliver curriculum content, assignments, and assessments. These platforms often provide interactive features, multimedia resources, and adaptive learning functionalities to enhance engagement and personalize learning experiences. Tools such as Google Workspace, Microsoft Teams, and Zoom, Moodle etc, enable real-time collaboration and communication among students and educators, facilitating group projects, discussions, and virtual classrooms. These tools also support remote learning and enable flexible access to educational resources. There is a wide range of educational platforms, apps and software available across various subjects and grade levels. These tools offer interactive lessons, tutorials, simulations, and games to reinforce learning concepts and provide personalized practice opportunities. VR and AR technologies are being increasingly used to create immersive learning experiences. Educational institutions are leveraging data analytics and learning analytics to track student progress, identify learning trends, and personalize instruction. By analyzing student performance data, educators can gain insights into student learning needs. Online assessment tools enable educators to create and administer quizzes, tests, and assignments digitally. These tools often provide instant feedback to students, allowing them to track their progress and address areas of weakness more effectively. Open Educational Resources platforms offer free access to educational materials, including textbooks, videos, and lesson plans. Technology can improve accessibility for students with disabilities by providing features such as text-to-speech, speech-to-text, screen readers, and alternative input devices. These accessibility tools ensure that all students have equitable access to educational content and resources. As technology becomes more integrated into education, it's crucial to prioritize cyber security and data privacy to protect sensitive student information and maintain the integrity of educational systems. Overall, the integration of technological tools in the educational system has the potential to enhance teaching and learning experiences, foster innovation, and prepare students for success in a digitally driven world.

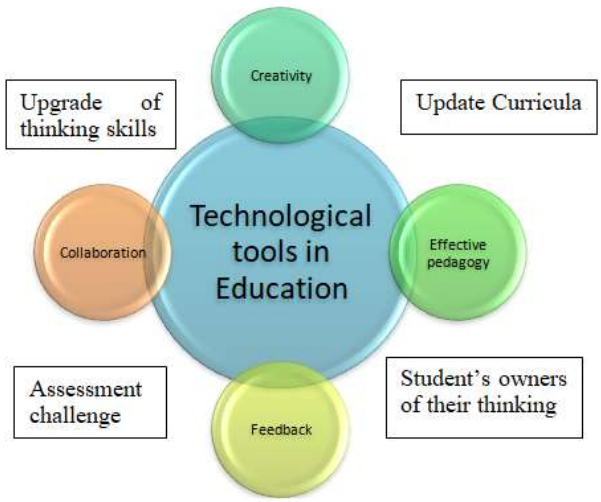

Figure 1. The Structure of Integration of Technological Tools in Education

Technological tools become an integral part of modern education systems, revolutionizing the way students learn, lecturers/ teachers teach, and administrators manage educational institutions. These tools

facilitate interactive and engaging learning experiences through multimedia content, online courses, simulations, and virtual reality. Students can access a vast array of educational resources, including videos, e-books, and interactive tutorials, tailored to their learning styles and preferences. Students can attend classes, participate in discussions, submit assignments, and interact with peers and instructors from anywhere in the world, breaking down geographical barriers to education. Educational software and learning management systems (LMS) utilize data analytics and artificial intelligence to personalize learning experiences based on individual student needs, preferences, and progress. Information Technology streamlines administrative tasks such as student enrollment, registration, grading, scheduling, and resource allocation, reducing paperwork, eliminating redundancies, and improving efficiency. Administrative staff can use integrated management systems to track student progress, manage finances, and generate reports more effectively. Learning Tools enables collaborative learning environments where students can collaborate on projects, share resources, and communicate with peers and instructors in real-time. Collaborative tools such as wikis, discussion forums, and video conferencing platforms promote teamwork, communication skills, and knowledge sharing among students. Data-driven Decision Making enables data collection, analysis, and visualization to inform evidence-based decision making in education. Educational institutions can gather data on student performance, attendance, demographics, and behavior to identify trends, assess outcomes, and tailor interventions to improve learning outcomes and support student success.

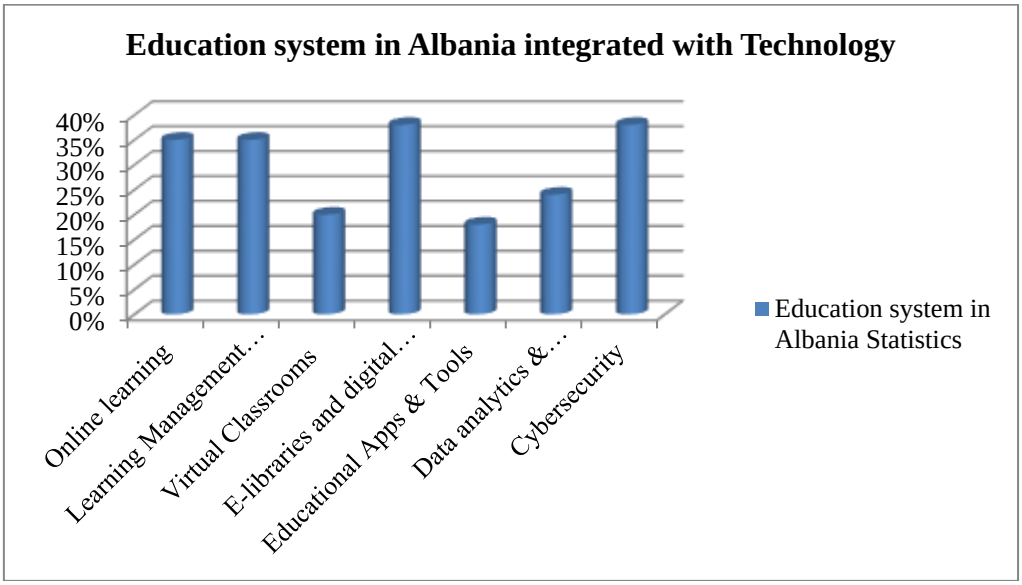

Figure 2. Statistics of Information Technology usage

5. Conclusion

The current education system has made significant strides in increasing access to education and embracing technology. However, it faces challenges related to curriculum relevance, inequality, and student well-being. To address these challenges and the opportunities presented by technology and evolving pedagogy, education systems must continue to adapt and reform. Ultimately, a successful education system should prioritize the holistic development of students, equipping them with the skills and knowledge needed to thrive in an ever-changing world. The successful implementation of technology in HEIs requires strategic planning, investment in infrastructure and staff training, collaboration between academic and IT departments, and a focus on pedagogical objectives to ensure technology enhances rather than replaces traditional teaching and learning methods. A digital vision or strategy, that aligned or integrated with curriculum goals and improvement plans ensured that the technology implemented was relevant and helps the stakeholders to achieve their goals. A strategy is

needed to achieve and resolve these challenges. The effective monitoring and evaluation of HEIs is the backbone to continuous improvement. It can be the key for improving learning outcomes, decision making and resource allocation.

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