IOSR Journal of Research & Method in Education (IOSR-JRME)
e-ISSN: 2320–7388, p- ISSN: 2320-737x Volume 15, Issue 4 Ser. 3 (July. – August. 2025), 27-29
www.iosrjournals.org

Education In The Digital Age

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Abstract:
In a society different from the previous ones, where the presence of technological tools is widespread, and with the new generations that have a new way of learning, it is necessary to understand the functional way of doing education. Learning with digital technologies implies the activation of new cognitive processes, where active teaching facilitates learning and student involvement. Teaching in the digital age means operating in an educational context in which digital technologies must be integrated into teaching processes, where the book and the teacher are no longer the only source of knowledge. It becomes essential that teachers teach students to use digital technologies in a sustainable, effective and efficient way, with mastery and awareness, with the acquisition of some specific digital skills. Teaching in the digital age also means doing it with the communication methods with which the new generations are more familiar. The digital age "forces" us to build a new teaching model, characterized by: digital content, digital teaching methodologies and technologies and a new form of educational marketing. The goal of these new teaching models is to transform the school community into an intelligent educational community.

Key Word: *Active Learning; Digital Natives; Digital Technologies; School Innovation.*

Date of Submission: 04-08-2025 Date of Acceptance: 14-08-2025

I. Introduction

The way we learn has changed (especially for digital natives): it no longer happens only in traditional classrooms and through paper books, but also through virtual environments, open educational resources (OER), social media, online learning platforms, blogs and so on. Teaching in the digital age means operating in an educational context where technologies must be integrated into teaching processes, where the book and the teacher are no longer the only source of knowledge. In school 4.0, one of the tasks of teachers is to ensure that students use digital technologies in a sustainable, effective and efficient way, with mastery and awareness. Teaching in the digital age also means doing it in the languages that digital natives are most familiar with, such as gamification and Game Based Learning. The challenge for schools in the digital age is to ensure that students develop problem-solving strategies, as this could offer them better job prospects in the future.

II. Methodology

The research is of a documental nature and was conducted through the consultation of reports, surveys and interviews collected from publications and databases: OECD (Organisation for Economic Co-operation and Development), PISA (Programme for International Student Assessment), PIAAC (Programme for the International Assessment of Adult Competencies), TALIS (Teaching And Learning International Survey); IEA (International Association for the Evaluation of School Success); UNESCO (United Nations Educational, Scientific and Cultural Organization); IAU WHED (International Association of Universities - World Database on Higher Education). The survey examined aspects related to education in the digital age.

III. Discussion

Learning with digital technologies involves the activation of new cognitive processes, where active teaching facilitates learning and student involvement, which is why it is essential to integrate them into lessons. Generation Alpha (those born after 2012) interacts with tablets or other similar devices from a very early age, even before mastering spoken language and drawing, and consequently their way of learning will be revolutionized compared to previous generations, and they will apply the touch procedure also in the future.

If a student has a positive experience, such as attending a class, watching a video or passing an exam, his or her brain activates the reward circuit by producing dopamine, the neurotransmitter linked to motivation. This chemical process concretely translates into the creation of synapses and the strengthening of memory processes. The management and control of stress have a direct impact on learning. Recent neurodidactic studies

have established a direct correlation between the creation and speed of connection of cortisol levels (a hormone often associated with stress). High levels of cortisol negatively affect learning processes.

Active learning is very effective and appreciated by students in the digital age. Teachers must be very careful when assigning activities to students, as they must be able to complete them. Assigning activities that are too difficult, or for which students do not have the necessary tools, often generates a sense of frustration, which inhibits motivation and causes students to abandon courses.

In school 4.0, one of the tasks of teachers is to ensure that students use digital technologies in a sustainable, effective and efficient way, with mastery and awareness. Digital natives are the first truly "highly technological" generation, who think, learn and know differently from previous generations. If for the generations that preceded them, learning meant reading-studying-repeating, for digital natives, learning means solving problems in an active way. Today's students click on links and acquire information in a few seconds, following their own mental processes, simultaneously performing multisensory operations that involve different cognitive activities (multitasking processes), which is one of the reasons why students do not like reading. New digital technologies promote the construction of an individual learning path through experimentation, collaborative construction of content, development of critical analysis skills and selection of knowledge. The personalization of teaching tools also makes personalized and inclusive teaching possible, in which each student is able to work and produce results based on their own abilities. This allows to enrich the educational experience and to provide effective answers to the real needs of today's students. Digital technologies have brought a radical change in the ways of acquiring knowledge and skills, they have entered as a new language and as a new model of knowledge.

Teaching in the digital age means working in an educational context where technologies must be integrated into the teaching processes, where the book and the teacher are no longer the only source of knowledge. Teaching in the digital age also means doing it through the communication channels that digital natives are most familiar with. The integrated system of Technology and Traditional Teaching, in the teaching environment, can promote an improvement in student learning outcomes. "Exploiting" the tools that students use daily and easily can be an advantage for learning, as it becomes easier to stimulate their creativity and the possibility of sharing knowledge. The development of hybrid learning environments consisting of socio-digital engagement strategies based on digital, mobile, virtual, online, social and physical places is recommended for deep and meaningful learning experiences.

Teaching in the digital age means equipping schools with next-generation classrooms and laboratories, cloud computing, hosting, cybersecurity, educational apps, and the Internet of Things. The traditional educational model is being transformed with the integration of new technologies, including: virtual reality, augmented reality, educational robotics, 3D printing, game-based learning, gamification, and artificial intelligence.

Virtual reality offers a powerful new tool for education, improving student engagement and learning, creating immersive experiences that allow you to overcome the physical barriers of the classroom and make lessons more stimulating and interactive; it offers realistic experiences that can help students understand complex concepts and interact with environments that are otherwise difficult or impossible to reach. Students can learn by doing in virtual environments, simulating real-world situations and acquiring practical skills. It can be adapted to different learning styles and individual needs of students, personalizing their learning, making it more engaging and fun and increasing their motivation.

Augmented reality is a technology that enriches the real world with digital elements, such as images, videos, 3D objects and information, superimposing them on the user's view through a device, such as a smartphone, a tablet or an augmented reality viewer, offering students numerous innovative tools, including specific apps and books, making learning more engaging and interactive, with contents that from static become dynamic, improving the teaching experience.

Educational robotics is an approach to education that uses programmable robots to teach and learn concepts in an interactive and hands-on way, especially in the STEM fields (Science, Technology, Engineering and Mathematics). This method makes learning more engaging and creative, allowing students to see and touch the concepts they are learning. Students are no longer just spectators, but actors in the learning process, becoming protagonists of their educational journey. Many activities are designed to be carried out in groups, promoting collaboration and teamwork, where students learn to analyze problems, design solutions and test them, developing problem-solving and critical thinking skills. The use of robots makes learning more interesting and stimulating, maintaining students' attention and motivation, preparing them for an increasingly digital and technologically advanced world, developing the skills required by the job market.

3D printing is transforming the manufacturing industry and will likely impact many aspects of our daily lives in the near future. In education, 3D printing has the potential to improve teaching and learning primarily in STEM subjects, but also in other disciplines.

Digital games are extremely popular among students in the digital age, capturing their attention and engaging them. Through digital games, students can develop skills such as: performing goal-oriented actions, problem solving, cognitive skills, collaboration, and group decision-making.

Artificial intelligence is spreading widely in society and in educational processes it can be very useful as a support tool for both students and teachers.

The European Union has identified, through the DigCompEdu model, which are the digital skills that teachers and trainers must possess, and through a self-assessment test they can also detect their level of competence. The DigCompEdu model includes six areas of skills: Professional involvement and valorization; Digital resources; Teaching and learning practices; Learning assessment; Valorization of student potential; Promotion of the development of students' digital skills.

The digital skills that students must possess concern the areas: Coding, Digital Literacy, Systems and Networks, Data Protection.

Part of the future of a nation will depend on the progress of new technologies and the way in which these can be integrated into educational processes.

IV. Conclusion

Students in the digital age want to be free to learn, they do not want to follow rigid traditional learning models, they prefer to learn through problem-based learning (PBL), cooperative learning, guided discovery and creativity. This generation of students is very sensitive to the emotional situation, they want to study in relaxed, calm and familiar environments, without stress, using formats present in everyday life, such as videos and games. They need to be in a state of emotional well-being, with emotions playing an important role in learning. A generation very sensitive to inequalities in treatment, which therefore becomes one of the reasons why they end up belonging to the category of NEET, this term indicates young people (usually between the ages of 15 and 29) who are not in education, employment or training, a category that highlights their detachment from the labor market and society in

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