



## The Success and Challenges of ICT Utilization in Armenia

Armine Vahanyan<sup>1</sup>

Armenian State Pedagogical University after Kh. Abovyan, Armenia<sup>1</sup>

### Abstract

*The paper touches upon the implementation of ICT tools in Armenian education centers, in particular, the utilization of Google Classroom in language courses at the Armenian State Pedagogical University (ASPU), the challenges that have been identified during this experiment.*

*The global digitization influenced all spheres of our life. And nowadays, education in Armenia has been gradually tailored due to this significant impact.*

*Armenia has recently stepped into the era of digital education. Yet in 2015 ARMAZEG report (“State of The Art Regarding E-Learning and ICT for Lifelong Learning”) stated that “E-learning as an official learning form cannot be considered as conventional in Armenia.” However, the issues specified in the very report have been considered, and certain steps have been taken in this respect. Thus, the ASPU after Kh. Abovyan was one of the pioneers in the country to acknowledge the necessity to embrace the digital turn by implementing Google Classroom initially as a pilot program (2015-2016) and then as a mandatory component of all courses.*

*The contemporary European approach of student mobility and its major requirements of language and ICT competencies present substantial challenges for a vast number of students in Armenia.*

*The added value of Google Classroom is in the flexible management and pedagogical design of the education process. The platform turned to be quite efficient for language education, which had been manifested by many professionals too. The platform which was initially used for full-time education, recently, namely from the fall semester of 2018, was launched for distance education and extension department and in general, turned to be applicable and efficient.*

*However, the following issues have been identified:*

- 1. Lack of relevant infrastructure and lack of ICT literacy.*
- 2. Insufficient information mining and analytical skills at the students' end.*
- 3. Legal issues in terms of copyright and plagiarism.*

*We think that exploration of the best practices of the European countries in terms of digital literacy initiatives will further help to fix and overcome the specified issues.*

**Keywords:** *ICT, education, e-learning, digitization, Google Classroom.*

### **The modern quality education is undeniably interconnected and is contingent on e-learning status and the level of digital competencies which are equally important to all stakeholders of education.**

Armenia historically has profound education traditions starting from the early medieval period (schools and universities in Armenia, e.g., Tatev Academy, Gladzor University). Later on, starting from the 18th century, the education centers had been formed mainly in major Armenian diaspora spots (Georgia, Russia, Italy, India). The beginning of the 20th century heralded the Soviet era (1923-1991). And Armenia, as a part of the USSR, adopted the Soviet education system. The Soviet system, like any other education system, had its advantages and disadvantages. It focused mainly on the scientific and technical training and proved to be very successful. The high quality of Soviet Education was acknowledged by many foreign scientists and experts. However, the ideology greatly affected the education process and resulted in censorship, selective choice of material as well as propaganda of the Soviet ideology, especially in the humanitarian field. With the dissolution of the Soviet Empire, Armenia appeared in a new socio-economic and cultural situation. The unique situation raised many issues not only in the social and psychological respect but also in education. Nowadays, freedom of speech and lack of censorship allows providing better education services.

However, the ideology greatly affected the education process and science, especially in the humanitarian field. Furthermore, even in the field of sciences, due to ideological domination, genetics and cybernetics were almost banned for an extended period.

The XXI century, which has been declared as the time of information technologies irreversibly penetrated in the field of education, thus shaping new teaching and learning environment and resulting in the overall quality of education. The newly formed communication established a “diculture.”



While many education centers /schools, colleges and universities/ outside the former USSR have substantive experience of ICT utilization and Learning Management System, Armenia has recently stepped into the era of digital education. To be more precise, according to the statistical data, the IT users in Armenia in 2000 comprised only 0.1 % of the entire population vs. 72.4 % in 2019 [1]. And today, when many experts name Yerevan (the capital of Armenia) the Silicon Valley of Transcaucasia [2] the education leads have been facing issues with ICT implementation in the education process and its management.

In recent years, specific steps have been taken both by the Armenian Government and the Ministry of Education and Science, and individual universities, in particular. Armenia is a member of several international organizations which guide and support the Ministry of Education and Science on its mission of popularization of e-learning. In particular, GIZ, the German Federal Ministry for Economic Cooperation and Development (Deutsche Gesellschaft für Internationale Zusammenarbeit) has a significant contribution to the implementation of e-learning into the educational system of Armenia.

However, yet in 2015 ARMAZEG report (“State of The Art Regarding E-Learning and ICT for Lifelong Learning”) stated that “E-learning as an official learning form cannot be considered as conventional in Armenia” [3, p.11]. The aim of the ARMAZEG project is to stimulate educational reform in Armenian and Georgian universities by means of developing lifelong learning methodologies, implementation strategy, teacher training, and setting up of e-learning centers.

Nowadays many Higher Education Centers such as the Armenian State Pedagogical University after Khachatur Abovyan, Yerevan Brusov State University of Languages and Social Sciences, the Public Administration Academy, State Engineering University of Armenia, Gavar State University, the American University of Armenia, the French University have been using various components of e-learning (student-teacher communication, distribution of the learning material, assessment and grading, assignments). The higher education leads acknowledge the necessity of technology-enhanced learning in their education system.

It is worth mentioning that the American University of Armenia is a private university and has more funding sources, and therefore the campus is well-equipped with the necessary devices and has a stable and fast network connection. Besides, the AUA has been using the best practices of the US education system. The American University of Armenia has been using Moodle as the Learning Management System. Students and faculty have training opportunities on a regular basis. Both faculty members and students are aware of a variety of ICT tools which they are willing to use for classes. The AUA may be considered to be the leader in terms of ICT utilization and e-learning experience.

The majority of the Armenian universities mentioned above have also been using the Moodle platform; whilst not mandatory. The teachers are recommended to use Moodle as the primary means of communication with students; however, this is not a general practice.

It should be noted that the level of ICT utilization among Armenian universities is diverse. Some of them use specific software for general administration purposes (e.g., e-deanery, curriculum management, admissions, testing). The diversity depends on the available infrastructure, lack of trained staff, as well as low level of e-literacy on the students' end. Some teachers are enthusiastic; however, the others do not yet feel quite comfortable in the virtual space. A successful sample of the E-learning implementation has been recently carried out at the Yerevan Brusov State University of Languages and Social Sciences by developing an electronic course titled “Practical Russian Language” [4].

As for the Armenian State Pedagogical University, much has been changed since the aforementioned ARMAZEG report. The University had been demonstrating a strong commitment to the implementation of e-learning which is declared in the strategic plan of the University [5]. After having tested an ICT software which was developed by the university software engineers the ASPU after Kh. Abovyan decided to implement the Google Classroom platform initially as a pilot program (2015-2016) and then as a mandatory component for all courses. As with anything new, the introduction of the new platform was not smooth and easy. The usage revealed issues which may not be addressed at once. One of the problems derived from lack of e-literacy on both ends, i.e., the teachers and students. In order to address this issue, relevant training for the staff was conducted on a regular basis. Such training, however, didn't involve the entire staff but only representatives from every department or chair. Ideally, it was intended to spread and share the knowledge and skills with colleagues; however, this step was not sufficiently monitored.

The students, on the other hand, have also been briefly trained. Nevertheless, many students have still a vague understanding of the tool and do not skillfully work in the virtual environment. It should be noted that students face technical problems mostly during the first academic year. The



university administration fully acknowledges the social roots of the lack of computer skills, which is why the seven university libraries have been equipped with necessary devices and network to support students and enable their use of Google Classroom.

Having adopted the path of digitization of education process, the ASPU has been encouraging webinars and other events which may be conducted in the online format.

After using Google Classroom for full-time education for three years, the platform was launched for the distance education department. The use of this platform minimizes the necessity to meet with teachers in person and enables online interaction. In terms of the constant teacher-student communication, material distribution and assignments, no significant issues had been reported. However, the students' code of conduct and integrity is rather questioned. The evaluation of the assignments is of major concern as faculty members may not be sure if the assignment was done by the student and not another person. This is an issue which has culture-related roots.

Apart from the technical issues, other significant problems had been identified:

1. Lack of relevant infrastructure and therefore, lack of ICT literacy.
2. Insufficient information mining and analytical skills at the students' end.
3. Legal issues in terms of copyright and plagiarism.

The ARMAZEG report of 2015 summarizes the study results in a SWOT analysis, which was relevant for the period of the study [3, p. 17]. As for the strengths, less has been changed. To the given list, we may add the improvement of the infrastructure, increase of technical devices, and broadening the scope of activities carried out via Google Classroom (webinars and online conferences with partner universities). For the current situation, the primary threat is still the low utilization by students of e-learning materials.

The issues specified above need day-to-day work and proper steps to minimize and further avoid them. It is evident that development training, continuous infrastructure improvement, and legislative initiatives may increase the level of e-competencies. Another efficient method is cooperation with the experts in this field and partner universities via conferences, workshops, and consultations. Time will fix the current issues with the help of proper guidance, and the number of IT users in the country will generate qualitative changes.

## References

- [1] Internet World Stats. Usage and Population Statistic  
<https://www.internetworldstats.com/asia/am.htm>
- [2] Blockchain R&D Hub Launched in Armenia <https://brdhub.com/en/527WZSV5>
- [3] ARMAZEG report. Developing e-Learning in the Transcaucasus Region (“State of The Art Regarding E-Learning and ICT for Lifelong Learning”).  
[http://www.armazeg.com/media/documents/Stateofheartreport\\_ARMAZEG.pdf](http://www.armazeg.com/media/documents/Stateofheartreport_ARMAZEG.pdf)
- [4] E. Avakova, M. Yeghiazaryan, The Structure and Content of the “Practical Russian Language” E-Course for the Students of the Non-Special groups. // In: Bulletin of Yerevan Brusov State University of Languages and Social Sciences. 2(43): Yerevan, Lingva, 2018, pp 201-208.
- [5] University Strategic Plan (2016-2020).  
[https://aspu.am/website/images/website/docs/HPMH\\_RC%20%20FINAL.pdf](https://aspu.am/website/images/website/docs/HPMH_RC%20%20FINAL.pdf)