

Formal and informal smart education in the university space through the prism of developing resilience and citizenship skills

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Abstract

Smart education in the modern university space combines formal and informal education tools, and in the context of hybrid challenges, it is complemented by requirements to focus on developing resilience and citizenship skills. Objective is to assess the effectiveness of formal and informal education tools for developing resilience and citizenship skills in the university environment, using the example of Ukraine's experience. Prior work. The author draws not only on her own research experience, but also on the work of scholars from other CEE countries, in particular an article by Moldovan researchers A. Turcan, L. Gudjuman, and T. Colesnikov, published in the SCRD Journal. The author also draws on the conclusions of an article by R. Müller-Török, A. Prosser and S. Sroka on the digital literacy of civil servants in Romania (published in the SCRD Journal). Approach. The research approach is based on the application of SWOT analysis to the specifics of implementing the principles of civic education and resilience skills in the educational process of universities, as well as in extracurricular activities. Implications. In her study, the author draws on an analysis of the experience of implementing tasks related to the development of resilience and citizenship in Ukrainian universities. The author believes that this experience is useful and important for Eastern and Central European countries, particularly Romania and Moldova, in the context of hybrid threats from the Russian Federation, which have been unfolding recently, particularly during election campaigns. Value. Particular attention and value is given to the activities of a smart university in the context of the third mission of the university or the mission of public service. The main value and originality of the study lie in highlighting the author's experience in implementing the Media and Civic Education project in 2023–2025.

Keywords: smart education, citizenship, resilience, third mission of the university, digitalisation.

1. Introduction

Ukraine has been living under the influence of war for over ten years. In these conditions, the formation of a new quality of civic education and media literacy is of particular importance. However, we must note that the formation and implementation of the national concept of civic education and media literacy lacks a systematic basis, particularly in the context of covering Ukrainian citizens of all age groups.

On the one hand, the importance of civic education is recognised at the state level. In 2018, the Concept for the Development of Civic Education in Ukraine was approved [1]. The National Strategy for the Promotion of Civil Society Development in Ukraine for 2016–2020 was adopted and began to be implemented, defining the strategic directions and tasks of civic education, such as the inclusion of courses and topics on civil society development in the curricula of general, vocational and higher education institutions [2].

On the other hand, representatives of the 30+ age group, especially the older generation (roughly 60-70+), remain almost completely excluded from courses, classes, training sessions, etc. on civic education and media literacy. This is because formal and, even more so, informal education tools are rarely used for people in these age groups.

In the process of implementing her own educational project “Media and Civic Education” (from September 2023 to the present), the author had the opportunity to use *SWOT analysis* to examine the specifics of implementing the principles of civic education and media literacy in the educational process, as well as in extracurricular activities.

The aim of this study was to conduct a practice-oriented investigation into the optimal combination of formal and informal education tools.

At the same time, we would venture to say that studying Ukraine's experience in implementing media and civic education projects is potentially useful and interesting for Ukraine's neighbouring countries and their formal and informal education institutions, given the challenge of creating smart education in today's university environment.

Smart education in the modern university space combines formal and informal education tools, and in the context of hybrid challenges, it is complemented by requirements to focus on developing resilience and citizenship skills. In her research, the author draws on an analysis of the experience of implementing resilience and citizenship development tasks in Ukrainian universities since the end of February 2022. This experience is useful and important for Eastern and Central European countries, particularly Romania and Moldova, in the context of hybrid threats from the Russian Federation that have been unfolding recently, including during election campaigns.

The main objective is to assess the effectiveness of formal and informal education tools for developing resilience and citizenship skills in the university environment, using the Ukrainian experience as an example. The research approach is based on the application of SWOT analysis to the specifics of implementing the principles of civic education and resilience skills in the educational process of Ukrainian universities, as well as in extracurricular activities. Particular attention is paid to the implementation of these tasks in the context of the deployment of the third mission of a smart university and/or the mission of community service.

2. Use of materials of Smart Cities and Regional Development Journal

The author draws not only on her own research experience, but also on the work of scholars from other CEE countries, in particular the article by Moldovan researchers *A. Turcan, L. Gudjuman, and T. Colesnikov*, “Digital Transformation in Education: The Example of ASEM and the Integration of Modern Technologies into the Learning Process”, published in the SCR D journal. Digital transformation is currently being implemented to improve formal and informal education tools and to help both teachers and students adapt to the challenges of the modern world [3].

An important conclusion drawn by Moldovan researchers is that improving digital literacy contributes not only to the academic success of students, but also to the professional competence of teachers themselves. The higher the digital competence of teachers, the wider the range of formal and informal education tools they can use [3]. To support their conclusion, the authors suggest considering the concept of smart education, the tools of which are learner, educator, educational technology and new or improved learning and

teaching approaches. Digital Education (digital technologies, including online courses, Learning Management Systems – LMS and digital tools) create special area of smart education [3].

At the same time, digital literacy in promoting the importance of media and civic education in the context of hybrid threats is necessary from the point of view of smart university not only for students and teachers, but also for local government officials. Therefore, given the essence of the third mission of a smart university, the digitisation of education through the formation of resilience and citizenship skills using formal and informal tools is of considerable importance for improving the digital literacy of civil servants, local community representatives and activists. In this statement, the author draws on the conclusions of the article by *R. Müller-Török, A. Prosser and S. Sroka*, “Digital (ill)literacy of local and regional politicians and civil servants: an analysis based on recent data from Romania” [4].

It is noteworthy that the authors' assertion about the low level of digital literacy among local officials is based on empirical data – a survey of Romanian officials. At the same time, the German-Austrian team of scientists assures that such disappointing results are a pan-European problem. In other words, the researchers' conclusion can be extended to other European countries, including Ukraine. “The overall conclusion is that the digital literacy of local and regional politicians and civil servants, at least in Romania, is quite low and needs to be improved significantly. The same applies to a basic understanding of how the internet works, what an IP address is or how e-mail works is insufficient” [4].

3. SWOT analysis of the project “Media and civic education”

In the process of implementing my own educational project “Media and Civic Education” (from September 2023 to the present), the author had the opportunity to use the SWOT analysis method to examine the specifics of implementing the principles of civic education and media literacy in the educational process, as well as in extracurricular activities. The aim of this study was to conduct a practice-oriented investigation into the optimal combination of formal and informal education tools. So, let's try to formulate some conclusions.

1. Strengths. The current legislative framework (starting with the Law on Education [5] and the Concept of the New Ukrainian School [6]); established methods for conducting classes for schoolchildren and students; a contingent of specially trained teachers, lecturers, trainers and mentors to conduct relevant classes and activities. All of the above aspects primarily characterise the formal education segment at all levels.

It is worth noting the importance of the activities of the civil society (non-governmental) sector – Ukrainian and international civil society organisations, foundations, institutions and experts. It is noteworthy that representatives of the civil society sector usually work closely with government structures, ensuring synergy between civil society and the state in the formation of a culture of citizenship. “Thanks to public consultations and civil society participation in the law-making process, the approaches proposed by civil society are

recognised at the government level”, noted Yaryna Borenko, an expert with the Youth Policy Group of the Reanimation Package of Reforms, back in 2017.

Recalling the conclusions of our colleagues from Moldova A. Turcan, L. Gudjuman, and T. Colesnikov, we can predict that the potentially strong points of combining formal and informal education tools in the implementation of smart education with media and civic learning/teaching are intelligent systems, personalised learning, artificial intelligence, and data analytics to create adaptive learning environments that improve student performance [3].

2. *Weaknesses.* Despite all the arguments presented (regulatory framework, activities of the National Education Agency and formal education institutions, individual activists), we dare to assert that no systematic strategy for the development of civic education and media literacy has been created in Ukraine. This strategy is particularly relevant in the context of lifelong learning, which covers the segments of Ukrainian society most vulnerable to information manipulation – those whose active period of socialisation took place during the Soviet era.

So, let us return to the conclusions of the German-Austrian research team regarding the importance of improving digital literacy among local officials, using Romania as an example. They wrote “Overall it seems unacceptable for the citizenry that their representatives and civil servants on a local and regional level lack digital literacy – and probably those on a national and supranational level as well” [4]. Under these conditions, the role of smart university cannot be overestimated, and the combination of formal and informal education tools becomes even more relevant. Thus, from the weak side, another goal of the university's third mission can be implemented in the context of the development of smart education and SMART cities.

3. *Opportunities (prospects).* The reformatting of formal education institutions to distance learning during the 2020 lockdown has undoubtedly expanded the opportunities for the effective implementation of educational projects in civic education and media literacy. After the start of the full-scale war, these tools became more in demand, especially among our citizens who were forced to leave Ukraine and who live in temporarily occupied territories. The author had experience conducting online training sessions with participants who live in temporarily occupied territories.

When considering the prospects for implementing educational projects on civic education and media literacy in the field of informal education, we should note a particular surge in activity among both the creators of such courses and their users. For example, on just one of the largest informal education platforms in Ukraine – the Prometheus platform – the author counted about two dozen courses on related topics [6].

Based on the university's third mission in a smart city, the relationship between the community/city and the university should be mutually open and as interesting and useful as possible for both parties. The university interacts with the community/city through joint

efforts to train personnel for local authorities and meet the needs of the city, the university's participation in infrastructure development, and expert support for local initiatives [7].

4. Possible threats and challenges. Since our country has been in a state of full-scale war for more than two and a half years, the threats are immediate – threats to the lives and health of citizens living in Ukraine, as well as threats from the occupying authorities in the temporarily occupied territories. Therefore, ensuring safe conditions for participants must be the number one requirement when implementing civic education and media literacy projects. Various aspects of this issue were discussed at the workshop “Implementing a trauma-informed approach in civic education” in Warsaw in August 2024, in which the author participated.

Another serious challenge is access to communications for Ukrainian citizens. We know that as a result of massive shelling of Ukrainian infrastructure, many cities and villages are experiencing problems with electricity, mobile communications and the internet, which is undoubtedly a significant obstacle to the implementation of educational projects. However, with the experience of the winter of 2022-2023 and the spring-summer of 2024, autumn of 2025, we can use energy-independent (at least relatively) points of resilience, co-working spaces, etc. The main condition is their availability and the financial capacity of the organisers and participants of training courses and other events.

Given the hybrid attacks launched by the Russian Federation against European countries in recent months, we can sadly predict that Ukraine's neighbours are not safe from Russian attacks, which could lead to mass power outages and disruption to infrastructure and communications. Therefore, the experience of Ukraine and Ukrainian universities can be useful for reorienting SMART cities in the face of various threats.

It is important to note that in conditions of power outages and unstable internet connection, informal education tools take on additional importance, allowing educational projects to be adapted to the challenges of the times. The main thing is the digital literacy of potential participants in such projects.

4. Conclusions

The SWOT analysis conducted on the prospects for implementing educational projects in the field of civic education and media literacy allows us to draw the following conclusions.

First, Ukraine has a fairly extensive network of formal and informal educational institutions that implement projects in the field of civic education and media literacy. However, they often operate in isolation from one another, without seeking to establish systematic cooperation and/or exchange of experience.

Secondly, despite the developed regulatory framework for civic education, no systematic strategy for the implementation and realisation of civic education and media literacy in Ukraine under the patronage of the state has been created.

Thirdly, actors and providers of civic education and media literacy from the public sector have proven to be more flexible, adaptive and open to change and challenges. However, they need, if not direct assistance, then the creation of favourable conditions for their activities on the part of state institutions, in particular formal education institutions. It is the synergy of formal and informal education institutions using their tools that can ensure the continuity and systematic implementation of educational projects, especially in the context of wartime challenges.

Fourthly, the author considers projects that focus on communication with participants aged 60+ to be one of the most promising areas for the implementation of educational projects on civic education and media literacy, as their share in the demographic structure of Ukraine's population is growing every year.

References

- [1] Verkhovna Rada Ukraïni, «Kontseptsiya rozvitku gromadyanskoï osviti vid 3 zhovtnya,» 2018. [Онлайнвий]. Available: <https://zakon.rada.gov.ua/laws/show/710-2018-%D1%80#Text>.
- [2] Ukaz Prezidenta Ukraïni, «Natsionalna strategiya spriyannya rozvitku gromadyanskogo suspilstva v Ukraïni na 2016– 2020 rr.: vid 26 lyutogo 2016 r. № 68/2016.» 2016. [Онлайнвий]. Available: <https://zakon.rada.gov.ua/laws/show/68/2016>.
- [3] A. Turcan, L. Gudjuman та T. Colesnikov, «Digital transformation in education: ASEM case study and the integration of modern technologies in the learning process,» *Smart Cities and Regional Development Journal*, т. 9, № 2, 2025.
- [4] R. Müller-Török, A. Prosser та S. Sroka, «Digital (ill)literacy of local and regional politicians and civil servants: an analysis based on recent data from Romania,» *Smart Cities and Regional Development Journal*, т. 8, № 2, 2024.
- [5] Verkhovna Rada Ukraïni, «Zakon Ukraïni «Pro osvitu,»» [Онлайнвий]. Available: <https://zakon.rada.gov.ua/laws/show/2145-19#Text>. [Дата звернення: 05 09 2017].
- [6] «Nova ukraïnska shkola. Kontseptsiya. MON Ukraïni,» [Онлайнвий]. Available: <https://mon.gov.ua/static-objects/mon/sites/1/zagalna%20serednya/nova-ukraïnska-shkola-compressed.pdf>.
- [7] Innovatsiini universitet i liderstvo: proekt i mikroprozhkti - VII, «Universitet 2030: Model rozvitku,» Taxon, Kyiv, 2025.