

PROBLEMS AND PROSPECTS OF MEDIA EDUCATION AS A COMPONENT OF THE SUSTAINABLE DEVELOPMENT CONCEPT

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Abstract: Media education ensures the preparation of a person for life in an information society and the information culture formation. The latter involves the development of competencies and skills in order to analyze, verify, and determine sustainability, reliability of information provided to the media in the media space. It has been noted that media education is fragmented; an insufficient level of skills and competencies, fragmentation of media education is observed. It has been established that the major prospect of media education is aimed at expanding the audience of the media thanks to social networks eliminating borders between countries and providing citizens with access to the most relevant information about political, economic, social-cultural events and problems on a global scale.

Keywords: media education, media competence, media literacy, media, ICT skills of teachers, sustainable development.

1 Introduction

The role of media education lies in preparing a person for life in an information society, as well as the information culture formation; it involves the development of competencies and skills in analysis, verification and determination of sustainability and reliability of information spread by the media in the media space.

The emergence and establishment of digital technologies within a social scale leads to rethinking of media education in two aspects. The first aspect is related to the authorial nature of digital and social networks. This specificity turns the viewer into a prosumer; it involves combining critical thinking and responsibility. The second aspect centres on spreading digital media at the individual and social levels. This means that media education is expanding its presence beyond traditional media (Rivoltella, 2019). Information and communication technologies (ICT) provide the development of new strategies for media education on the Internet, which are similar to traditional media, especially in their desire to influence people, their beliefs, thinking, attitudes, and perception. For this reason, the curricula of higher educational institutions (HEIs) should include a critical analysis of this new reality for training new generations (Gómez-Galán, 2020).

The purpose of the academic paper lies in revealing current challenges and prospects of media education as part of the sustainable development concept.

2 Literature Review

As defined by UNESCO, media education is “training theoretical and practical skills for mastering modern mass media, which are considered as part of a specific, autonomous area of knowledge in pedagogical theory and practice” (UNESCO, 2011).

Challenges and prospects of media education are considered in the context of the development of democracy, information technology (Freberg & Kim, 2018; Salomaa & Mertala, 2019; Gómez-Galán, 2020). Masterman (2018) disputes about democratic control over the media: control over the media makes it possible to identify how democratic countries really are, an indicator of the level of trust in the media. For instance, in the United States, media education is developing slowly, despite the high level of democracy (Kubey, 2018). By comparison, England is a leader in promoting media

education among the European countries (Piette & Giroux, 2018). A project approach to media education is implemented in Portugal (Dias-Fonseca, & Potter, 2016).

Kubey (2018) examines the problems of individual countries in the development of media education policies and national curricula (the USA, England, and Israel). Buckingham (2007a) argues that media education is able to move beyond the traditional instrumental approach through innovative training technologies, to overcome the “new digital gap” 1) by applying and expanding conceptual approaches to education; 2) appealing to the creativity of technology; 3) studying the potential of new forms of integrated media culture. Moreover, Buckingham (2015) draws attention to the necessity for a well-targeted critical policy in the field of media education in connection with the problems of new digital social media, which not only provide democracy and self-expression, the implementation of creative potential, but also carry certain risks for young people. On the other hand, Buckingham (2007b) argues that “the potential of digital media is a tool to increase digital literacy”. “Media competence of the individual as a target function of higher education is a complex set of knowledge, skills and mental qualities, the list of which depends on many factors” (Al Nadzhar et al., 2018). At the same time, access to information through digital technologies raises the problem of forming its value, veracity, truthfulness, credibility in information and media (Jenkins, 2007). For instance, the investigation conducted by Fischman, DiBara & Gardner (2006) has found that students lack a set of standards in order to differentiate between professional and amateur websites, although the former are perceived as more reliable. Seiter (2005) argues that “media” are becoming more like a shopping mall, a larger public relations network than an information resource.

Jenkins (2007) identifies three key issues of digital media education, namely: 1) the problem of youth participation in access to new media technologies: the availability of a computer and access to the Internet at home contributes to the formation of a wider range of digital skills and competencies, as well as digital media literacy; 2) the problem of transparency: the experience of young people in the use of media and technology forms their subjective perception and attitude to certain phenomena, processes, which is not always true; 3) problem of ethics: independent formation of ethical norms by young people for management of a complex social environment, in particular, on the Internet. The influence of ICT on children and youth is as strong as the impact of traditional media on citizens’ consciousness. Therefore, critical thinking and information perception presented in the information space is extremely important as a skill of young people and the society as a whole. The lack of these skills creates problems of consumption, addiction, cyber bullying and distorted perceptions of reality (Gómez-Galán, 2020).

Al Nadzhar et al. (2018) highlight the problem of manipulative information disseminated in the media space, which requires teachers to train students to critically analyze it. For an objective perception of information, a person should possess the competence of verification, assessment of sustainability, reliability, critical perception, and search for differences in the truthfulness and falsity of information. Martín & Tyner (2012) argues that formal education should be integrated into the curriculum of the media to acquire digital skills through a critical approach.

Simons, Meeus & T'Sas (2017) identifies three clusters of skills in the field of media competence, namely:

1. Using media (n = 3): competencies reflecting the technical instrumental use of media.
2. Understanding media (n = 6): competencies in the field of (critical) understanding of media, including analysis, evaluation and reflection on media content.
3. Contributing medially (n = 3): competencies related to the creation and the communication of media messages as well as to participation using media”.

“Media education – as well as education in general – should not be limited to critical assessment of the media. Media education programs “should respect the individuality of a person, including his or her special family upbringing, which should be aimed at forming her own opinion” (Christ, 2020).

Scientific media education is the ability to rely on media knowledge and science in order to select, understand, evaluate and respond to how scientific facts are represented in various media genres (Reid & Norris, 2016). Scientific media education should be part of formal and non-formal education for critical evaluation of any media, understanding of the social-cultural and economic context (how and why media are created to disseminate news and entertainment content); use of the media as a legitimate and productive source of scientific education (Storksdieck, 2016).

Thus, in the scientific literature, the problems of media education are considered in the context of the democracy development, information technologies, and the countries’ challenges in the development of policies in the sphere of media education and national curricula, the “new digital gap”.

Key challenges in digital media education relate to access to new media technologies, transparency and ethics. An important direction of investigations is studying the media competence of students and teachers, scientific media education and its objectives.

3 Materials and research methods

Eurostat and OECD data have been used in the research in order to identify challenges and prospects for media education in various countries. The indicator Share of individuals having at least basic digital skills, by sex in EU-27 in 2019 (Eurostat, 2021a) has been used to identify the achievement of the sustainable development goal in providing the population with basic digital skills necessary for using technologies as a tool for media education and the development of media literacy.

The indicator Individuals – internet activities in EU-27 (in 2020,% of all individuals) has been applied to identify the basic actions of users on the Internet. OECD (2021) data on deficit / surplus Basic, Complex Problem Solving Skills and Technical Skills in different countries in the education sphere in 2020 have been used to identify problems in the transfer of these skills in the learning process to students.

Secondary data of OECD Teaching and Learning International Survey (TALIS) 2018 on professional development in the context of media education have been used in order to assess the level of ICT skills and the need for their development, as well as the development of creativity and critical thinking. In total, the answers of 38 081 interviewed teachers to the following questions have been processed, namely:

1. Question 23 “Were any of the topics listed below included in your professional development activities during the last 12 months?” with answer options “yes” – 1 or “no” – 2:
 - 23 e) ICT (information and communication technology) skills for teaching;
 - 23 k) Teaching cross-curricular skills (e.g. creativity, critical thinking, problem solving);
2. Question 27 “For each of the areas listed below, please indicate the extent to which you currently need professional development. Please mark one choice in each row” with answer options 1 – No need at present, 2 – Low level of need, 3 – Moderate level of need, 4 – High level of need:
 - 27 e) ICT (information and communication technology) skills for teaching;
 - 27 k) Teaching cross-curricular skills (e.g. creativity, critical thinking, problem solving).

The survey involved teachers from the countries as follows: 7,4% – Brazil, 7,4% – China, 7,0% – Croatia, 4,4% – Denmark, 9,3% – Portugal, 10,2% – Vietnam, 5,8% – Slovenia, 7,7% –

Sweden, 16,1% – UAE, 21,9% – Turkey, 2,9% – Canada (Table 1).

Table 1 – Distribution of respondents (teachers) who participated in the TALIS survey, 2018

Indexes	Number of respondents, persons	%	Cumulatively, %
Brazil	2828	7,4	7,4
Chinese Taipei	2800	7,4	14,8
Croatia	2661	7,0	21,8
Denmark	1670	4,4	26,2
Portugal	3551	9,3	35,5
Viet Nam	3884	10,2	45,7
Slovenia	2200	5,8	51,5
Sweden	2933	7,7	59,2
United Arab Emirates	6118	16,1	75,2
Turkey	8342	21,9	97,1
Alberta (Canada)	1094	2,9	100,0
Total	38081	100,0	

Source: OECD (2018).

From among the respondents, female teachers – 56,3% and male teachers – 43,7% (Table 2).

Table 2 – Distribution of respondents (teachers) who participated in the TALIS survey by gender, 2018

Indexes	Number of respondents, persons	%	Cumulatively, %
Female	21453	56,3	56,3
Male	16627	43,7	100,0
Total	38080	100,0	–
Missing	1	–	–
Total	38081	100,0	

Source: OECD (2018).

4 Results

The concept of EU’s sustainable development (Goal 4 – Quality education) provides the population with basic digital skills needed to use technology as a tool for media education and media literacy. The principal goal of “The European Skills Agenda” is to increase the proportion of the population aged 16-74 with basic digital skills to at least 70% in 2025. However, currently, in some EU countries (Norway, the Netherlands, Iceland, the Czech Republic, Finland, Great Britain, Sweden, Germany, Denmark), this figure is 70% or more (Figure 1).

It should be noted that possession of digital skills does not mean the ability to analyze, critically perceive information according to the criteria of sustainability and reliability. The difference in the deficit of technical and process skills is significant (critical thinking, training, monitoring).

The basic types of the population’s activities of EU countries on the Internet are represented in Table 3. The most popular citizens’ activities are as follows: video calls, traditional calls, and searching for information about goods or services, participation in social networks, Internet banking, and search for health information.

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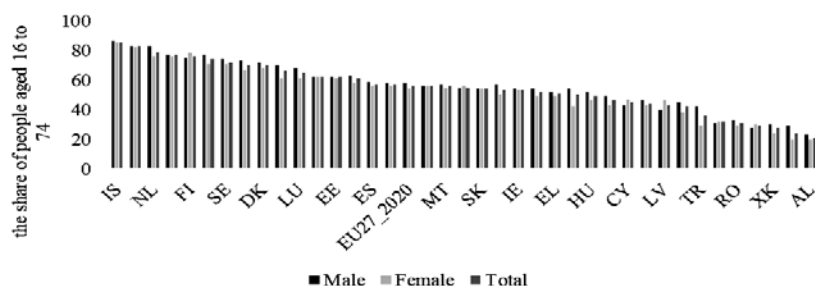


Figure 1 – Share of individuals having at least basic digital skills, by gender in EU-27 in 2019

Source: Eurostat (2021a)

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participation in social networks, Internet banking, and search for health information.

Table 3 – Citizens' internet activities in EU-27, 2020, % of all individuals

Indexes	Internet use: telephoning or video calls	Internet use: participating in social networks (creating user profile, posting messages or other contributions to Facebook, twitter, etc.)	Internet use: finding information about goods and services	Internet use: Internet banking	Internet use: search for health information
Belgium	68	79	78	75	51
Bulgaria	59	55	50	13	29
The Czech Republic	52	59	77	70	62
Denmark	70	85	90	94	72
Germany	65	54	87	65	70
Estonia	63	65	81	80	58
Ireland	67	61	72	69	60
Greece	57	59	69	37	52
Spain	78	65	78	62	67
France	48	42	62	66	50
Croatia	57	57	71	50	58
Italy	65	48	48	39	46
Cyprus	85	78	78	52	61
Latvia	61	67	71	76	49
Lithuania	64	61	73	68	57
Luxembourg	76	60	68	71	53
Hungary	68	74	76	51	63
Malta	63	72	77	60	64
The Netherlands	83	71	89	89	76
Austria	60	60	67	66	56
Poland	55	55	63	49	43
Portugal	55	63	68	47	49
Romania	56	65	46	12	28
Slovenia	52	67	77	52	58
Slovakia	63	64	78	58	56
Finland	78	75	85	92	77
Sweden	73	73	88	85	67
Iceland	74	94	94	96	69
Norway	79	88	91	94	74
Switzerland	69	53	81	73	67

Source: Eurostat (2021b).

Particular attention should be paid to "participating in social networks", which is the most popular activity on the Internet in advanced countries. It is a well-known fact that social media pages are created on social networks in order to disseminate information about political, social, economic and cultural life

due to the fact that social networks are free platforms for spreading information with a high level of privacy. For instance, the official account of The New York Times Magazine on Instagram has collected 398 000, the news agency The Guardian amounts 4 600 000 subscribers on Instagram (Figure 2).

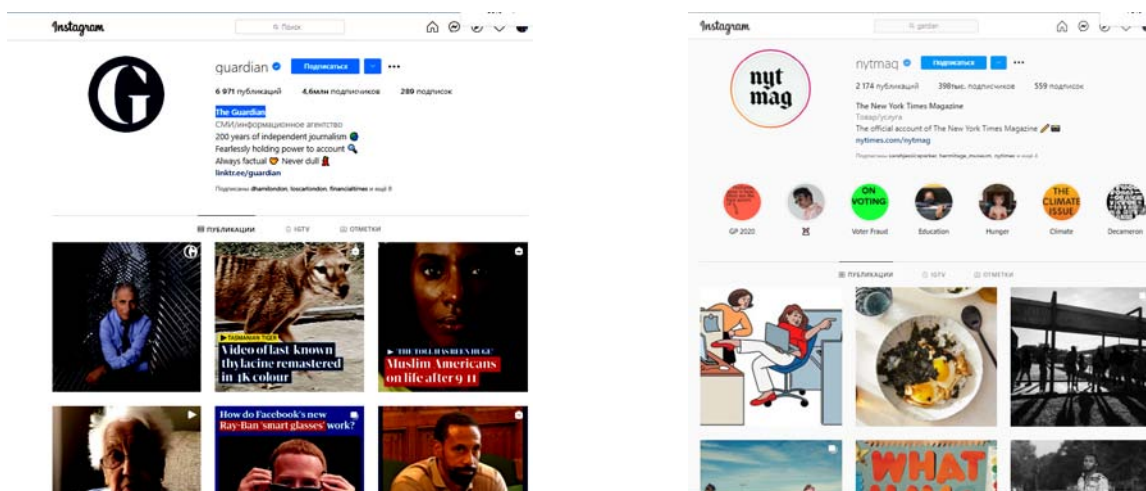


Figure 2 – The official media page of The New York Times Magazine and The Guardian (Internet source)

The information space has ensured an expansion of the media audience: users from all over the world can follow political, economic, social-cultural events. Therefore, the issue of developing skills in order to critically perceive information provided by the media is exacerbated, forasmuch as due to the annual growth of the number of social networks and, accordingly, users, their influence on the consciousness of citizens is growing.

In the context of sustainable development, EU aims to provide basic digital skills. For this reason, it is advisable to assess the level of

competence in different countries. According to data represented in Table 4, there is a shortage of teachers' critical thinking skills (average in countries 0,17) in the educational sphere of different countries; consequently, the educational sphere requires the development of these skills by professionals. Skills of active learning, learning strategies and monitoring are also in deficit (averages 0,16; 0,20 and 0,17, respectively). Thus, the problem exists in the transfer of critical thinking skills from a teacher to a student: a teacher with a deficit of critical thinking skills with a lower level of probability will form this competence in a student.

Table 4 – Basic, Complex Problem Solving Skills and Technical Skills in different countries in the field of education in 2020

Skills*	Country	Basic Skills (Process)	Basic Skills (Process)				Complex Problem Solving Skills	Technical Skills
			Critical Thinking	Active Learning	Learning Strategies	Monitoring		
Australia	0,318	0,308	0,285	0,364	0,315	0,243	0,028	
Austria	0,312	0,304	0,28	0,364	0,301	0,242	0,025	
Belgium	0,185	0,18	0,166	0,213	0,181	0,142	0,016	
Chile	-0,041	-0,034	-0,036	-0,052	-0,04	-0,034	-0,004	
The Czech Republic	0,003	0,008	0,005	-0,006	0,006	0,009	0,003	
Denmark	0,172	0,164	0,158	0,202	0,165	0,132	0,015	
Estonia	0,278	0,282	0,25	0,294	0,284	0,228	0,032	
Finland	0,117	0,118	0,111	0,129	0,111	0,097	0,014	
France	0,453	0,426	0,409	0,541	0,434	0,337	0,039	
Germany	0,079	0,082	0,072	0,081	0,081	0,067	0,01	
Greece	0,117	0,114	0,107	0,135	0,113	0,09	0,01	
Hungary	0,323	0,309	0,288	0,378	0,318	0,242	0,024	
Iceland	0,17	0,168	0,155	0,19	0,168	0,135	0,016	
Ireland	0,322	0,322	0,284	0,358	0,323	0,267	0,034	
Italy	0,214	0,204	0,195	0,254	0,203	0,162	0,016	
Latvia	0,176	0,171	0,161	0,202	0,172	0,138	0,015	
Lithuania	0,006	0,011	0,008	-0,004	0,009	0,011	0,003	
Luxembourg	-0,193	-0,182	-0,173	-0,224	-0,191	-0,142	-0,017	
Mexico	-0,082	-0,075	-0,074	-0,098	-0,081	-0,059	0	
The Netherlands	0,243	0,246	0,226	0,261	0,24	0,196	0,024	
Norway	0,069	0,071	0,064	0,069	0,071	0,057	0,009	
Poland	0,337	0,321	0,304	0,401	0,322	0,256	0,023	
Portugal	0,562	0,541	0,509	0,652	0,546	0,43	0,046	
The Slovak Republic	-0,059	-0,055	-0,052	-0,072	-0,058	-0,042	-0,005	
Slovenia	-0,088	-0,088	-0,079	-0,095	-0,09	-0,072	-0,01	
Spain	0,427	0,411	0,387	0,497	0,411	0,325	0,034	
Sweden	0,419	0,4	0,372	0,489	0,416	0,315	0,033	
Switzerland	0,195	0,186	0,174	0,232	0,189	0,148	0,016	
Turkey	0,045	0,035	0,038	0,072	0,036	0,023	-0,001	
The United States	0,007	0,01	0,009	0,001	0,008	0,009	0,001	
European Union	0,234	0,227	0,212	0,27	0,228	0,182	0,02	

Source: OECD (2021).

* Positive values indicate a shortage of skills, negative – an excess

As a result, teachers also need professional development of critical thinking skills. Consequently, data of OECD Teaching and Learning International Survey (TALIS) 2018 on the professional development of 35 454 educators in 48 countries indicate to the fact that 61,5% of teachers have undergone training on developing ICT skills in order to use them in their own professional activities; 54,6% have undergone training on developing skills in creativity, critical thinking, problem solving, etc. Herewith, on average, within EU, a very low deficit of technical skills (average value 0,02) is observed, as well as an insignificant deficit in complex problem solving skills in media education (average value is 0,13).

The professional development of teachers is important for the formation of the young generation's ability to think critically and use digital skills for the objective perception of information. The results of the OECD survey (2018) indicate to the fact that teachers in various countries have studied disciplines at HEIs relating to the professional development of ICT skills (the average answer is 1,34 to question 23 with a deviation of 0,473). Along with this, the average value of the answer for the inclusion of subjects in the curricula of HEIs for development of "cross-curricular skills (e.g. creativity, critical thinking, problem solving)" is 1,41 (that is, closer to "yes" with a deviation of 0,492) (Table 5).

Table 5 – Average value and deviation of respondents' answers to questions on professional development of ICT skills and cross-curricular skills

Indexes	Areas prof.dev. ICT skills for teaching	Areas prof.dev. Teaching cross-curricular skills	Prof.dev needs ICT skills for teaching	Prof.de v needs Teaching cross-curricular skills
Responses received	35454	35392	37075	37002
Missed	2627	2689	1006	1079
Average value	1,34	1,41	2,50	2,44
Standard deviation	0,473	0,492	0,993	1,016

Source: OECD (2018).

The survey also gives testimony to a low level of teachers' necessity to develop ICT skills that are needed in teaching students (the average answer is 2,5 with a deviation of 0,993); low level of necessity for development of "Teaching cross-curricular skills" (average answer value 2,44 with a deviation of 1,016).

61,5% of respondents state that subjects for the development and formation of digital skills have been included in their curricula; 31,6% claim the absence of such disciplines during training (Table 6). 54,6% of surveyed teachers have indicated that the subjects of cross-curricular skills for their further activities are included in the curriculum, while 38,3% of teachers have given negative answers.

Table 6 – Areas prof.dev.: ICT skills for teaching, Teaching cross-curricular skills

Indexes	Number of respondents, persons	%	Cumulatively, %
Areas prof.dev. ICT skills for teaching			
Yes	23432	61,5	61,5
No	12022	31,6	93,1
Total	35454	93,1	100,0
Missed	2627	6,9	
Total	38081	100,0	
Areas prof.dev. Teaching cross-curricular skills			
Yes	20807	54,6	54,6
No	14585	38,3	92,9
Total	35392	92,9	100,0
Missed	2689	7,1	
Total	38081	100,0	

Source: OECD (2018).

The answers of teachers from different countries on the need to develop ICT skills and Teaching cross-curricular skills are reflected in Table 7. 19% and 21,9% believe that there is no need for the professional development of these competencies; 27,5% and 28,9% have indicated a low level of the necessity; 34,1% and 30,1% claim about the average level of the necessity; 16,8% and 16,8% have indicated about a high level of need.

Table 7 – Prof.dev needs ICT skills for teaching

Indexes	ICT skills for teaching			Teaching cross-curricular skills		
	Number of respondents, persons	%	Cumulatively, %	Number of respondents, persons	%	Cumulatively, %
No need at present	7243	19,0	19,0	8121	21,3	21,9
Low level of need	10457	27,5	46,5	11021	28,9	47,9
Moderate level of need	12983	34,1	80,6	11449	30,1	78,0
High level of need	6392	16,8	97,4	6411	16,8	97,2
Total	37075	97,4	100,0	37002	97,2	100,0
Missed	1006	2,6		1079	2,8	
Total	38081	100,0		38081	100,0	

Source: OECD (2018).

Therefore, the results of studying media education as a component of the sustainable development concept make it possible to single out the principal problems as follows: 1) the gap between the technical and digital skills of EU population and process-based, in particular, critical thinking, monitoring, learning strategies, despite the achievement of the goal of providing the population with basic digital skills (more than 70%) by the most advanced EU countries; 2) 43,5% and 48,1% of teachers, respectively, feel the need in the development of ICT skills and Teaching cross-curricular skills; by the way, the curricula of HEIs do not contain subjects for the formation of these skills among teachers during their studies at HEIs in 31,6% and 38,3 % of cases, respectively.

The core perspective of media education lies in expanding the audience of the media through social networks eliminating borders between countries, providing citizens with access to the most relevant information about political, economic, social-cultural events and problems on a global scale. However, within EU, it has been revealed that the basic type of citizens' activity on the Internet is participation in social networks. Consequently, this reduces the level of manipulative influence of the national media, which for various reasons can distort the information provided on foreign resources. This also increases the transparency level and to some extent solves the problem of accessibility (gap because of the access) of information for various social groups.

5 Discussion

The need for professional development of ICT skills and cross-curricular skills of teachers has been revealed in other studies. Reid & Norris (2015) argue that the educator should have administrative support to participate in comprehensive workshops on media and resources, the possibility to develop effective, complex critical thinking competencies for working with media. Furthermore, Reid & Norris (2015) pay particular attention for the necessity to reduce the academic load on teachers in order to integrate media literacy into traditional disciplines, which, as it has been found in the present research, are often absent from the curriculum (in 38,3%). Teachers are convinced of the value of media education (Reid & Norris, 2015) and they have a desire to develop professionally (as this research shows, 48,1% have an average or high level of need for the development of cross-curricular skills). For this reason, disciplines related to media education should be included in the curriculum.

In addition to providing traditional training of media literacy to teachers, Reid & Norris (2015) point to the need for formal and informal additional training resources for teachers in order to combine two core approaches to media education: protectionism and culturology (Reid & Norris, 2015).

Gómez-Galán (2020) highlights the basic trends in the evolution of media education, namely: adaptability, media usage habits, media literacy requirements, media education teachers' competencies, changes in culture and the society as a whole. Consequently, this gives rise to the challenges as follows: assessment of the information reliability; the international nature of media activities, their expansion through social media; the problem of developing critical literacy, visual and digital literacy; expanding groups of educators to increase teaching practice, the need for lifelong learning; internationalization of media education. This partly correlates with the results of our research, in particular, in the context of the internationalization of media through social media and the growth in the number of social media users; in the context of continuous professional development of teachers and improvement of their skills.

The basic challenges of media education are as follows: lack of resources, in particular, for the development of media competence; insufficient level of cooperation and coordination (Christ, 2020); insufficient level of skills and competencies; fragmentation of media education and its dissemination into separate groups (as we have revealed, not all teachers during study subjects of ICT skills development and critical thinking skills during training) (Kubey, 2018); changes in media culture affect media education, in particular, the problems of inequality, polarization, discrimination, racism, social exclusion, migration (Gómez-Galán, 2020).

Taking into account the problems and challenges outlined, it is advisable to develop the critical and reflective teaching staff that makes students, accustomed to traditional messages, think critically, analyze, think, and draw conclusions. Along with this, teachers on their example should form creative freedom, motivation for media education (Buckingham, 2015; Christ, 2020). This requires the renewal of the teacher's role as an organizer of knowledge, assistant, advisor. The role of the teacher has changed due to the digitalization of media education, and the teacher is perceived as a subject of information transfer. The formation of a critical perception of information as a skill becomes a priority in the context of sustainable development. EU declares that technology should be perceived as a tool, not as a learning goal. As the research has revealed, more than 70% of citizens possess basic digital skills in the most advanced countries, however, the deficit of critical thinking significantly exceeds the deficit of technical skills in the use of technology.

6 Conclusion

The research has found that media education, as part of the sustainable development concept, faces the core problems as follows: 1) the gap between the technical, digital skills of EU population and process skills (critical thinking, monitoring, learning strategies). Although the most developed EU countries have achieved the goals of providing the population with basic digital skills (more than 70%), the deficit of critical thinking exceeds the deficit of technical skills in the use of technology; 2) the need of teachers for the development of ICT skills and cross-curricular skills has been revealed (43,5% and 48,1%, respectively); 3) curricula do not contain subjects for the formation of ICT skills and cross-curricular skills of teachers during training at higher educational institutions (31,6% and 38,3% of cases, respectively). All the outlined points to the fact that media education is fragmented; consequently, lack of skills and competencies of media education is observed.

The major perspective of media education lies in expanding the media audience through social networks that eliminate borders between countries, provide citizens with access to the most relevant information about political, economic, social-cultural events and problems worldwide. Within EU, it has been revealed

that the main type of citizens' activity on the Internet is participation in social networks. This reduces the level of manipulative influence of national media, which for various reasons can distort the information provided on foreign language resources. Along with this, it increases the level of transparency and solves the problem of accessibility (gap because of the access) of information for different social groups.

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Primary Paper Section: A

Secondary Paper Section: AG, AM