

INTED **2022**

16th International
Technology, Education and
Development Conference

7-8 March, 2022

CONFERENCE PROCEEDINGS



Sharing the Passion for Learning

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Digitalization and Challenges of Libraries

INCLUSION & MULTICULTURALITY

Special Educational Needs
Inclusive Education
Multicultural Education
Diversity Issues

ACTIVE & STUDENT-CENTERED LEARNING

Gamification & Game-based Learning
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Pedagogical Innovations
Soft Skills Development

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Assessment & Evaluation
Rethinking Assessment in COVID-19 Times
Mentoring & Tutoring
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CULTURE OF SHARING, CRITICAL THINKING AND PROSUMATION OF MEDIA CONTENT

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Abstract

Introduction: Currently, the sharing of knowledge and skills are a factor for successful career development in the so-called “sharing economy”, based on renting, sharing, communication, cooperation, solidarity. And technology has been the biggest driver behind the sharing economy’s growth in facilitating this exchange. The culture of sharing is linked to successful communication in a learning or work environment, as well as to media literacy and working with media content distributed online. Digitization is generally seen as a positive force but there are also worries, and as a result critical thinking is becoming a key skill to identify untrusted sources and how to avoid reading them.

This paper discusses the relationship between the culture of media content sharing, the improvement of critical thinking about the value of media texts, and media content prosumation.

The goal: For the purposes of the paper, an analysis has been prepared based on the results of a survey part of a project on the topic: “Model for research and increase copyright literacy at the media in the university environment”, conducted in May 2021 among students from eight Bulgarian universities in specialties related to journalism, media, communications. The questionnaire aims to establish the current level of indicating problems in the modern information society, namely higher education and media policies related to copyright and related rights, as well as media literacy as part of information literacy in the university environment, the attitude to fake news, propaganda, and protection from online dangers. The results of this study are used to improve copyright media literacy in a university environment.

The methodology for achieving the main objective of the study and solving the set research tasks include the following specific methods: content analysis, comparative analysis, and synthesis of the obtained information, relevant to the topic of the paper.

Conclusion: Improving copyright literacy and critical thinking, as well as promoting a culture of sharing, remain priority activities both in the field of higher education and for the modern society. Acquiring new skills significantly improves the screening of fake and manipulative media content distributed online, from the real one.

Keywords: critical thinking, culture of sharing, media content, media literacy, copyright literacy, research.

1 INTRODUCTION

Communication is a phenomenon that is invariably associated with man and their place in culture. According to L. Parijkova, empathy and co-creation give the appearance of modern communication, which can be illustrated by virtual communication. Today, it prevails, people share content and find communities on social networks that are a powerful social tool for influence. Participation in social networks is related to public presentation, creating a positive public image. At the same time, behind their profile, a person can be anonymous, with the ability to face and show what they want. The user builds content himself, is free to choose the information, there are no cross-border connections. [1] Constant adaptation is a consequence of the unprecedented speed of innovation in modern times. The way technology and society coexist creates new identities. [2]

Communication is part of the culture of society. The American Sociological Association offers the following understanding of Sociology understands culture as the languages, customs, beliefs, rules, arts, knowledge, and collective identities and memories developed by members of all social groups that make their social environments meaningful. Sociologists study cultural meaning by exploring individual and group communication; meaningfulness is expressed in social narratives, ideologies, practices, tastes, values, and norms as well as in collective representations and social classifications. [3]

Brian Steensland considers culture as symbolic-expressive dimension of social life. In common usage, the term “culture” can mean the cultivation associated with “civilized” habits of mind, the creative

products associated with the arts, or the entire way of life associated with a group. Among sociologists, “culture” just as often refers to the beliefs that people hold about reality, the norms that guide their behaviour, the values that orient their moral commitments, or the symbols through which these beliefs, norms, and values are communicated. [4]

The discussion related to culture in its various transformations is also linked to the concept of knowledge sharing, which can also be called the “sharing economy” or the culture of sharing. The first signs of knowledge sharing are cave paintings. Another phenomenon that is changing the attitude towards the culture of sharing is the discovery of Gutenberg’s printing technology, thanks to which the circulation of printed materials such as newspapers began. Other examples of the development of a culture of sharing are the provision of public access to libraries in the 19th century, and in the 20th century the radio and television media further expanded the scope of sharing. In 1991, the Internet completely changed the concept of sharing culture. For several decades, the global network has become a major tool for disseminating information and multimedia resources serving science, culture, education, business. The emphasis in this paper is on the education of future specialists in journalism, media, communications, social sciences.

Through the resources and services on the Internet, cross-border connections, access to information in all languages, overcoming intercultural differences are possible. Today’s media is positioned on the Internet in the form of personal media websites or a social network profile. The society searches for the latest news on the Internet, the journalists themselves also use resources on the Internet in order to report the current events of the day, to comment on it or simply to express an opinion.

The present study examines the connection between the culture of sharing, critical thinking, and the presentation of media content. We believe that future journalists and media professionals need to develop habits regarding the culture of sharing and critical thinking on the one hand and on the other hand to expand their copyright competence in terms of authorship and use of media content. Users of media products themselves should be educated to critically evaluate information on the Internet, to share valuable media content, and not fake news, misinformation, or foreign copyrighted material.

2 METHODOLOGY

For the purposes of the research, a review and analysis of various sources is made, in which the essence of the culture of sharing and critical thinking is discussed. We focus on the interaction between the culture of sharing, critical thinking, and the use of media content on social networks. As an applied part to the research, we present the results of a survey conducted within a research project “Model for research and increase copyright literacy at the media in the university environment”, conducted in May 2021 among students from eight Bulgarian universities in specialties related to journalism, media, communications. The questionnaire aims to establish the current level of indicating problems in the modern information society, namely higher education and media policies related to copyright and related rights, as well as media literacy as part of information literacy in the university environment, the attitude to fake news, propaganda, and protection from online dangers. The results of this study are used to improve copyright media literacy in a university environment.

3 RESULTS

3.1 Theoretical statements for Culture of Sharing, Critical Thinking and prosumation of media content

This section provides an overview of theoretical statements on Culture of Sharing and Critical Thinking.

3.1.1 Culture of Sharing and prosumation of media content

Knowledge sharing among individuals is defined as a process which covers exchange of knowledge with other individuals so as to make them understand, adopt, and use it. Knowledge sharing behaviour includes the highest contribution to organizational activity and covers individual behaviours of working people such as sharing existing work knowledge, competencies, and experiences with other employees. [5]

In a study by the sociologist Gerhard Lenski, the following understanding of the concept of shared culture is presented: that members of a society are united by a shared culture, although cultural patterns become more diverse as a society gains more complex technology and information. Shared culture can

be observed in the understandings of: Race and Ethnicity, The Symbolic Nature of Culture, Cultural Universals, Theories of Culture. [6]

The book “Cultural Intelligence for Leaders” discusses culture as a shared learning experience. Shared cultures create a dynamic of an in-group, where people segregate themselves from each other. [7]

The culture of sharing is associated with encouragement, stimulation, continuous improvement. A “knowledge-sharing culture” is believed to be inherently good because of the growing importance of intellectual capital to organizations and the need for effective knowledge management practices. [8]

Technological aspects, such as infrastructure, digital literacy, and digital tools, dominate the focus of research on STEM education at undergraduate level. [9]

The development of ICT and access to resources and services in the global network implies the development of a culture of sharing, related to the “sharing economy”. According to Eleni Katrini, sharing economy as defined today includes contradictory cases of renting, sharing, communing, collaboration, solidarity, and typical businesses. In her research, she considers the culture of sharing on social networks as a way to share information, resources, services, knowledge. [10]

In the study “Medien – Wissen – Bildung: Kulturen Und Ethiken Des Teilens”, the authors commented that “what is clear, though, is that sharing as basal form of social interaction is being re-examined and this opens up new perspectives on human culture and history and as well as on diverse contemporary dynamics, far beyond the digital domain. Sharing has a key role to play in society. The collection includes separate publications on sharing theories, social dynamics of sharing, sharing in educational and business institutions. [11] For example, a publication by Alexander Unger noted that the media is an “add-on” to existing social structures, forming the background on which social and societal action is based. Considering the thesis that sharing is a basic social practice, it should be shown that this is increasingly associated with the sharing and manipulation of media or media content. The globalization of the knowledge society, cultural convergence and digitalisation are immensely linked to the dissemination of media content. A new culture of sharing is emerging, influencing the practice of media articulation, business models and media law. The creation of digital resources implies their rapid spread, but also subsequent manipulation. The emergence of video platforms, blogs, file sharing platforms and more, represent new forms of “media flow” in terms of the movement of media objects through various commercial and non-commercial channels. [12]

A group of researchers is preparing a study on “Creating Knowledge Sharing Culture through Social Network Sites at School: A Research Intended for Teachers”, which examines the benefits of the Internet and social networks in the educational process, examines teachers’ preferences, makes recommendations for cultural development of sharing through social networks at school. Activating these features of social networks may clear away the obstacles of a knowledge sharing culture which originated from existing organization concerned with the individual and technology in educational organizations. [13]

Hans-Martin Schönherr-Mann analyses the stimulation and culture of sharing, discussing the following questions: what exactly is shared, what motivates people to share, what does share mean. Sharing is understood as borrowing or renting. In the present, in order to be part of a community or a group, you need to share. The advent of social networks on the Internet has necessitated a change in the culture of sharing and simulating through media content in the form of images, text, multimedia content. [14]

In Christine Moser’s research a hypothesis is presented about the main effects of trust, reciprocity, and shared vision on perceived knowledge quality. Trust is considered a key factor in sharing content in an online environment where people can share and value knowledge. People in collectivist societies use trust as a means to build loyalty in cohesive groups. In more collective societies, the social group one belongs to is more important than the individual: people are life-long part of (extensive) groups, such as families, and understand themselves as part of this group. Reciprocity is at the heart of knowledge sharing and social exchange. It motivates people to share their high-quality knowledge online. Finally, a shared vision about goals and values plays a crucial role in knowledge sharing because it fosters engagement between people. Shared vision should generally boost the sharing of high-quality knowledge. [15]

According to UNGER, three forms of content sharing can be distinguished: 1). Sharing information on specialized platforms or social networks. 2). “Sharing” of digital media objects, so-called P2P network file sharing. 3). Sharing data or software code as an invitation to (joint) manipulation. [16]

Based on the above examples of a culture of sharing, we believe that the shared culture, or popular as a culture of cooperation, changes the professional competencies and individual knowledge of each person. Most often, cooperation and sharing are the tools through which individuals (students in an educational institution, employees in an enterprise) change their awareness and gain knowledge. The Internet and social networks have changed the culture of sharing media content, with users now sharing more – sharing on Instagram, TikTok, Twitter, Facebook, YouTube and more. Sharing content on social networks leads to followers, influences people’s thinking, leads to discussions. Due to the possibility of manipulating a large part of the resources on the Internet comes the need to discuss the relationship between the culture of media content sharing, the improvement of critical thinking about the value of media texts, media content prosumation. Often people, without being journalists, accept the role of copywriter or blogger and share posts such as advertising, message, recommendation, talk about their experience, contacts, show empathy, with which they contribute to a culture of sharing.

Non-specialists who prepare their media tests and distribute them online can often disregard media ethics and can lead to misinformation. On the other hand, professionals should be familiar with the rules for creating media content, ethical behaviour in the media, the culture of sharing, to evaluate the intellectual work of the author of media content.

3.1.2 *Critical Thinking and prosumation of media content*

K. Spasov thinks that the impact of technology on Gen Z is tremendous. The high-tech generation Z lives in an overwhelmingly digital environment which frequently emphasizes technological over critical thinking skills. Many of the students use only basic searching techniques, underestimate the source evaluation process, and thus fail to present their ideas adequately with supported examples. [17]

The culture of sharing is associated with critical thinking. The use of the term “critical thinking” to describe an educational goal goes back to the American philosopher John Dewey (1910), who more commonly called it “reflective thinking”. Since 1980, the state university system in California has required all undergraduate students to take a critical thinking course. What is critical thinking? There are many definitions. Ennis (2016) lists 14 philosophically oriented scholarly definitions and three dictionary definitions. [18]

The conceptualization of critical thinking has been refined and developed further by Richard Paul and Linder Elder into the Paul-Elder framework of critical thinking. Currently, this approach is one of the most widely published and cited frameworks in the critical thinking literature. According to the Paul-Elder framework, critical thinking is the:

- Analysis of thinking by focusing on the parts or structures of thinking (“the Elements of Thought”).
- Evaluation of thinking by focusing on the quality (“the Universal Intellectual Standards”).
- Improvement of thinking by using what you have learned (“the Intellectual Traits”). [19]

This definition comes from a statement written in 1987 by Michael Scriven and Richard Paul, National Council for Excellence in Critical Thinking, an organization promoting critical thinking in the US: Critical thinking is the intellectually disciplined process of actively and skilfully conceptualizing, applying, analysing, synthesizing, and/or evaluating information gathered from, or generated by, observation, experience, reflection, reasoning, or communication, as a guide to belief and action. In its exemplary form, it is based on universal intellectual values that transcend subject matter divisions: clarity, accuracy, precision, consistency, relevance, sound evidence, good reasons, depth, breadth, and fairness. Critical thinking can be seen as having two components: 1) a set of information and belief generating and processing skills, and 2) the habit, based on intellectual commitment, of using those skills to guide behaviour. [20,21]

Other definitions of the concept of critical thinking that are found in the literature are: Watson-Glaser (1980), Rawls (1971), Robert Ennis (1987), Peter A. Facione (1990), Johnson (1992), Alec Fisher (1997). [22]

The Critical thinking web learning platform, supported by Joe Lau, presents educational resources on: What is critical thinking; Improve our thinking skills; Defining critical thinking; Teaching critical thinking; Beyond critical thinking; The Cognitive Reflection Test; Critical thinking assessment; Videos and courses on critical thinking. [23]

A study by D. García-Pérez, C. de Aldama, A. Aguirre-Camacho, G. González-Cuevas on “Critical Thinking Assessment of Internet Inquiry and Argumentation in Text Generation” states the following understanding of critical thinking: “Critical thinking is a skill that can be divided into the two basic

components of inquiry and argumentation. Inquiry involves seeking and selecting relevant information, while argumentation involves justifying one's conclusions." [24]

V. Novikova, E. Chelpanova, E. Shmidt, M. Bolina, L. Naumenko address issues related to communication strategies and critical thinking of journalism students. [25]

The European, three-year Erasmus+ KA3 project CrAL aims to introduce the Creative Audiovisual Lab for the promotion of critical thinking and media literacy by scaling up and disseminating a good Italian practice on inclusive learning targeting to foster the 21st century skills for globally competent young people, who effectively combine knowledge about the world and critical reasoning whenever they form their own opinion about a contemporary issue. [26]

In the discussion of the topic of critical thinking in research, there is information about the Delphi method, which discusses cognitive skills as indicators of critical thinking, including: interpretation, analysis, evaluation, conclusion, explanation, and self-regulation. [27]

The process of critical thinking consists of suggestions, problem solving, gathering evidence, reasoning, hypothesis testing. Therefore, the following mental activities can be distinguished in the process of critical thinking: Observing, Feeling, Wondering, Imagining, Inferring, Knowledge, Experimenting, Consulting, Identifying, and analysing arguments, Judging, Deciding. As the ability to think critically can be distinguished: observation, emotionality, ability to ask questions, imagination, ability to draw conclusions, experimentation, counselling, argumentation, judgment, and decision-making skills. [28] Therefore, when talking about media content prosumation, news authors should have critical thinking – to observe, to be able to ask the right questions and to prepare analysis and conclusions, to consult, to seek arguments to confirm the authenticity of the news, to assess the value of the finished media content, to show creativity and imagination when necessary, the aim being not to create fake content and not to use illegally foreign copyrighted content. Media content users themselves should appreciate the qualities and value of the final product and, at their discretion, may share media content for wider publicity, citing the source.

A good example of a learning model is Media Literacy Through Critical Thinking. In order to develop critical thinking in students, it is necessary for them to constantly search for media texts, to archive and download those that they think are relevant. The conceptual framework for media education explains that each media product is unique, contains values and points of view. In the course of media education, the conceptual framework includes Media are constructions, Media and audiences play interactive roles, Media are (commercial) institutions, Media contain values. [29]

Digital media literacy (also known as online critical thinking skills) is vital to the safety, security, health, and well-being of individuals and communities. The proliferation of social media and applications has increased the volume of information we are exposed to everyday. Digital media literacy addresses three types of online content:

- Misinformation is false, but not created or shared with the intention of causing harm.
- Malinformation is based on fact, but used out of context to mislead, harm, or manipulate.
- Disinformation is deliberately created to mislead, harm, or manipulate a person, social group, organization, or country.

The Office for Targeted Violence and Terrorism Prevention offers several Tools and Resources related to Media Literacy & Critical Thinking Online. Electronic media and social networks can disseminate reliable and manipulated information. The Key Steps for Digital Media Literacy include Consider the source, Triple check the source, Identify the author, Inspect the URL, examine spelling and punctuation, seek alternative viewpoints, think before you share. [30]

Another example is Susan Luft's publication "Media Literacy Is Critical", which reads: "In our age of participatory culture, we should be treating our students like the type of prosumers (producers and consumers of information) we would like them to become. While putting our efforts into teaching students the craft, ethics, and responsibilities in producing media, we must also teach them to become skilled consumers of information, discerning fact from fiction at every turn or click of a hyperlink." [31]

Another example that demonstrates the importance of digital literacy and critical thinking is the UNICEF Digital Literacy Campaign – "New Generation with Critical Thinking". The campaign aims to educate young people to surf the Internet safely by developing their digital skills and critical thinking online. [32] For the safety of future generations in a virtual environment, it is necessary to conduct campaigns related to the culture of sharing, critical thinking, digital and media literacy.

Currently, the sharing of knowledge and skills are a factor for successful career development in the so-called “sharing economy”, based on renting, sharing, communication, cooperation, solidarity. And technology has been the biggest driver behind the sharing economy’s growth in facilitating this exchange. The culture of sharing is linked to successful communication in a learning or work environment, as well as to media literacy and working with media content distributed online. Digitization is generally seen as a positive force but there are also worries, and as a result critical thinking is becoming a key skill to identify untrusted sources and how to avoid reading them.

The next section presents the results of a survey that demonstrates the interaction between media literacy, a culture of sharing and critical thinking.

3.2 Results of a survey

As the scope of our research is related to the culture of sharing and critical thinking in the use of media content, we focus on researching among students from several Bulgarian universities (students majoring in journalism, media, communications) which media they prefer, what media content they most often use, are they interested in copyright in the media, respectively in piracy and plagiarism with media content. The survey was conducted among students at 8 Bulgarian universities in 5 cities (Sofia, Blagoevgrad, Veliko Tarnovo, Shumen and Burgas). The data were collected with the help of author’s questionnaire tools, specially developed for the purposes of the survey, and compiled for the needs of the specific survey, in the period 1st-26th April 2021. 455 respondents participated in the survey. The data collection was performed through an online-based survey based on the software product Google Docs. After the closing of the online survey, all questionnaires were subjected to logical review and control, after which the data were entered and subsequently processed with the statistical package Excel.

To the question “Which media is the most useful and valuable for you?” students choose the answer “Internet” (indicated by 34% of respondents), followed by “Internet, Social Networks” (indicated by 16% of respondents). Summarizing the results of Figure 1 – “Internet” is indicated as a possible answer in 76% of the multiple answers, but it is also the most chosen single answer (47%). In second place, after the Internet, are social networks, i.e., only 22% of the 47% that mentioned the Internet, are using social networks as a source of valuable and reliable information. Radio and print media are the last choice of the respondents, receiving the same percentage – 6%.

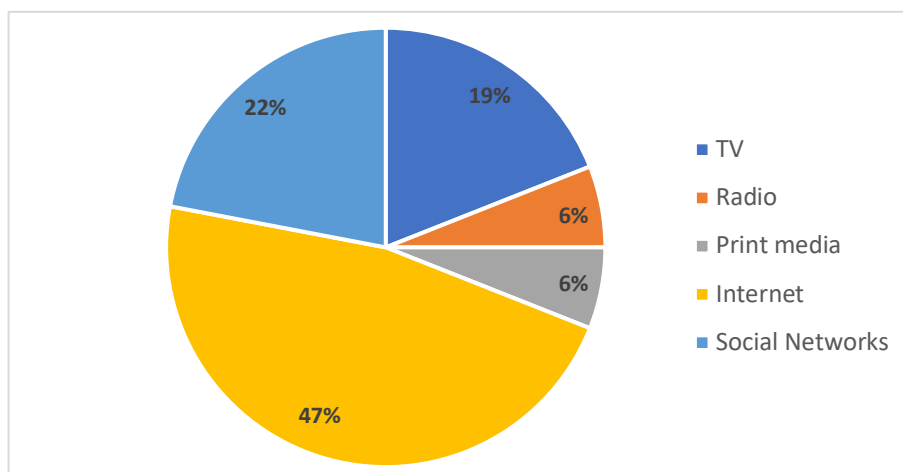


Figure 1. Graphic presentation of the results of the question “Which media is the most useful and valuable for you?”

The survey also looks for an answer to the question “How often do you critically analyse and evaluate information and media content?”. The most common answer to this question is “Every day” in 45% of cases. Therefore, it can be concluded that students studying journalism, communications and media show critical thinking and appreciate the value of media content.

To the question “Have you created any of the following media content in the last year?” – the largest percentage of respondents (42%) answered with “I have not created”, followed by “Video or audio material (film, animation, song, video, meme, photo, etc.)”, indicated by 23% of the respondents (Figure 2). The results of this question show that a large part of the students is currently not active in the media space, a small part of the future journalists and media specialists participate with media content in the Internet space.

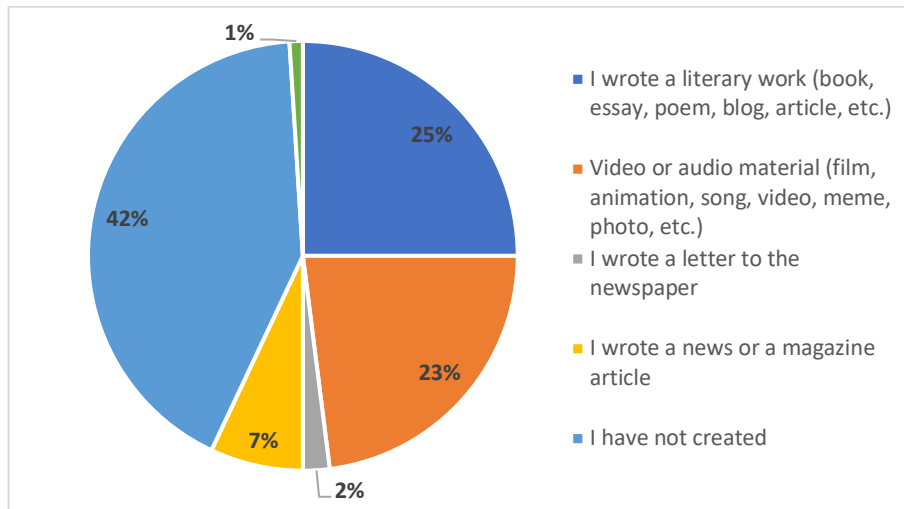


Figure 2. Graphic presentation of the results of the question "Have you created any of the following media content in the last year?"

To the question "How often do you download materials from the Internet without knowing whether they are copyrighted?", 26,06% of respondents said the answer "I did not think", 26,06% answered "Sometimes", 26,28% say "Often" (Figure 3.) The answers to this question lead us to the following conclusion – there is not enough preparation of students for the misuse of copyrighted content on the Internet, whether it is some type of work of literature, science, art, or journalistic material. We believe that enriching their knowledge with cases in the field of copyright would re-educate users of media content regardless of their professional status.

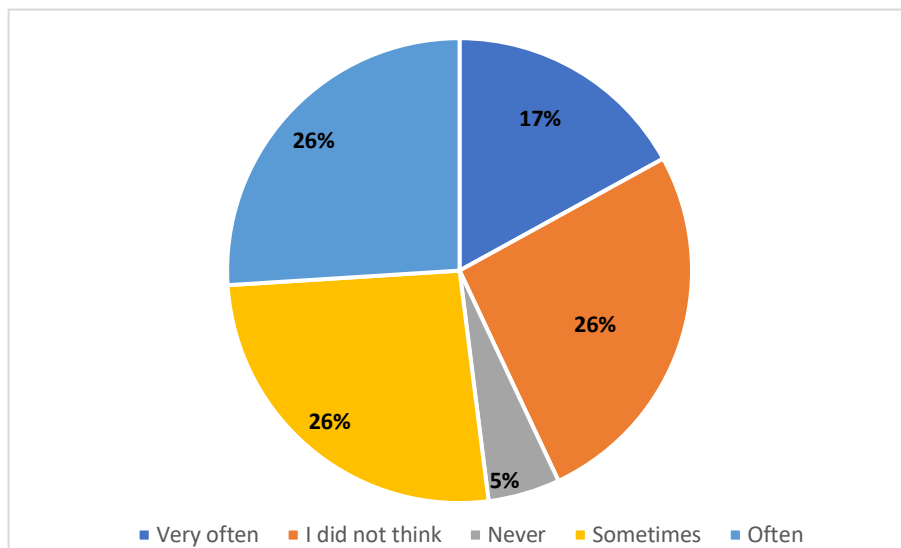


Figure 3. Graphic presentation of the results of the question "How often do you download materials from the Internet without knowing whether they are copyrighted?"

The culture of sharing and improving critical thinking should be part of the educational process in journalism. Here it is important the role of teachers, using special pedagogical tools, the method of design and play activities in the learning process, to contribute to the mastery of critical thinking and the culture of sharing.

4 CONCLUSIONS

Social media is ahead of the traditional ones, as it provides two-way communication and encourages the sharing of experience and knowledge. The improvement of media and in particular copyright literacy

in the new reality is a prerequisite for better education in the future of the digital citizen – the man of the information society.

Today, universities are under intense pressure, motivated by the knowledge society and by the internationalization of institutions, where creativity, innovation and entrepreneurship emerge as essential elements of competition. [33] Creating a positive environment, increasing social interaction, encouraging initiatives, creating conditions for sharing values and learning from our own and others' experiences describe our understanding of the culture of sharing media content.

In the process of learning, analytical, prognostic, critical, creative thinking is developed. A culture of sharing and critical thinking is essential for survival in today's media society. The European Commission points out that the development and evaluation of the so-called "Horizontal competences" related to critical thinking skills, creativity, innovation, initiative, problem solving, risk assessment, decision making, communication, self-assessment and implementation are leading. The modern teacher has the important task to provoke a dialogue with their students, to help upgrade the habits of a culture of sharing and critical thinking regarding the creation and dissemination of media content. In conclusion, we can point out that critical thinking is a skill for rational thinking, an important part of the knowledge economy and the fourth industrial revolution.

Improving copyright literacy and critical thinking, as well as promoting a culture of sharing, remain priority activities both in the field of higher education and for the modern society. Acquiring new skills significantly improves the screening of fake and manipulative media content distributed online, from the real one. [33]

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REFERENCES

- [1] L. Parijkova. *Interaction Vs. Communication*. Sofia: Za bukвите – o pismeneh, 2013.
- [2] L. Parijkova. „Digital Revolution, Digital Era, Digital People – An Attempt for Conceptualization“. *Intellectual property and digital people*. pp. 75-87. 2021, 6 January 2022. Retrieved from https://unyka.unibit.bg/images/pdf/2019/02_L_Parijkova.pdf
- [3] The American Sociological Association, 6 January 2022. Retrieved from <https://www.asanet.org/topics/culture>
- [4] Brian Steensland, "Sociology of Culture". 11 September 2018, DOI: 10.1093/OBO/9780199756384-0055 or Retrieved from <https://www.oxfordbibliographies.com/view/document/obo-9780199756384/obo-9780199756384-0055.xml>
- [5] Celep C., Konaklı T., Kuyumcu N. (2014) Creating Knowledge Sharing Culture via Social Network Sites at School: A Research Intended for Teachers. In: Passey D., Tatnall A. (eds) *Key Competencies in ICT and Informatics. Implications and Issues for Educational Professionals and Management*. ITEM 2014. IFIP Advances in Information and Communication Technology, vol 444. Springer, Berlin, Heidelberg. https://doi.org/10.1007/978-3-662-45770-2_22
- [6] Shared Culture. 7 January 2022. Retrieved from <http://kolibri.teacherinbox.org.au/modules/en-boundless/www.boundless.com/sociology/definition/shared-culture/index.html>
- [7] Cultural Intelligence for Leaders. 7 January 2022. Retrieved from <https://2012books.lardbucket.org/books/cultural-intelligence-for-leaders/s04-04-culture-is-shared.html>
- [8] Gupta, A., and V. Govindarajan. "Knowledge management's social dimension: lessons from Nucor Steel", *Sloan Management Review*, Fall 2000, V. 42, No. 1, pp. 71-80.
- [9] K. Brown, C. Feniser, V. Lally, J. Bilbao, A. Sadeh (2018) Sharing Cultures and Society in Technology Enhanced Learning Mediated Environments, *ICERI2018 Proceedings*, pp. 7369-7373.

- [10] Katrini E. Sharing Culture: On definitions, values, and emergence. *The Sociological Review*. 2018;66(2):425-446. doi:10.1177/0038026118758550
<https://journals.sagepub.com/doi/abs/10.1177/0038026118758550?journalCode=sora>
- [11] SÜTZL, Wolfgang (dir.); et al. *Medien – Wissen – Bildung: Kulturen und Ethiken des Teilens*. Nouvelle édition [en ligne]. Innsbruck: innsbruck university press, 2012 (généré le 10 janvier 2022). Disponible sur Internet: <<http://books.openedition.org/iup/1467>>. ISBN: 9783903122338.
- [12] UNGER, Alexander. *Die Kultur des Teilens im digitalen Zeitalter* In: *Medien – Wissen – Bildung: Kulturen und Ethiken des Teilens* [en ligne]. Innsbruck: innsbruck university press, 2012 (généré le 10 janvier 2022). Disponible sur Internet: <<http://books.openedition.org/iup/1483>>. ISBN: 9783903122338.
- [13] Celep C., Konaklı T., Kuyumcu N. (2014) Creating Knowledge Sharing Culture via Social Network Sites at School: A Research Intended for Teachers. In: Passey D., Tatnall A. (eds) *Key Competencies in ICT and Informatics. Implications and Issues for Educational Professionals and Management*. ITEM 2014. IFIP Advances in Information and Communication Technology, vol 444. Springer, Berlin, Heidelberg. https://doi.org/10.1007/978-3-662-45770-2_22.
https://link.springer.com/chapter/10.1007/978-3-662-45770-2_22#aboutcontent
- [14] SCHÖNHERR-MANN, Hans-Martin. *Die teilenden Medien – Das simulierte Begehren des Teilens* In: *Medien – Wissen – Bildung: Kulturen und Ethiken des Teilens* [en ligne]. Innsbruck: innsbruck university press, 2012 (généré le 10 janvier 2022). Disponible sur Internet: <<http://books.openedition.org/iup/1485>>. ISBN: 9783903122338.
- [15] Christine Moser, Juliane Reinecke, Frank den Hond, Silviya Svejenova, Grégoire Croidieu. (2021) *Biomateriality and Organizing: Towards an Organizational Perspective on Food*. *Organization Studies* 42:2, pages 175-193.
- [16] UNGER, Alexander. *Die Kultur des Teilens im digitalen Zeitalter* In: *Medien – Wissen – Bildung: Kulturen und Ethiken des Teilens* [en ligne]. Innsbruck: innsbruck university press, 2012 (généré le 10 janvier 2022). Disponible sur Internet: <<http://books.openedition.org/iup/1483>>. ISBN: 9783903122338.
- [17] K. Spasov (2021) *The Era of Critical Digital Literacy*, EDULEARN21 Proceedings, pp. 4324-4329.
- [18] *Critical Thinking*. Stanford Encyclopedia of Philosophy. Jul 21, 2018.
<https://plato.stanford.edu/entries/critical-thinking/>
- [19] *What is Critical Thinking?* <https://louisville.edu/ideastoaction/about/criticalthinking/what>
- [20] *What is Critical Thinking? The ability to think critically calls for a higher-order thinking than simply the ability to recall information.* <https://louisville.edu/ideastoaction/about/criticalthinking/what>
- [21] *Defining Critical Thinking.* <https://www.criticalthinking.org/pages/defining-critical-thinking/766>
- [22] *Defining critical thinking.* <https://philosophy.hku.hk/think/critical/definitions.php>
- [23] <https://philosophy.hku.hk/think/critical/>
- [24] D. García-Pérez, C. de Aldama, A. Aguirre-Camacho, G. González-Cuevas (2021) *Critical Thinking Assessment of Internet Inquiry and Argumentation in Text Generation*, INTED2021 Proceedings, pp. 5341-5347.
- [25] V. Novikova, E. Chelpanova, E. Shmidt, M. Bolina, L. Naumenko (2021) *Teaching Critical Thinking Through Media Discourse Analysis*, INTED2021 Proceedings, pp. 4219-4222.
- [26] K. Nikolakopoulou, E. Georgakakou, A. Kameas (2021) *Digital Pedagogical Tools for the Promotion of Critical Thinking and Media Literacy Through the Development of a Creative Audiovisual Lab*, ICERI2021 Proceedings, pp. 7759-7768.
- [27] Penka Kozhuharova. 2016. *Development of the Critical Thinking in the Learning Process.* <https://www.shu.bg/wp-content/uploads/file-manager-advanced/users/faculties/pf/izdaniya/seminari/2016/38-kojuharova.pdf>
- [28] <https://plato.stanford.edu/entries/critical-thinking/>
- [29] Chris M. Worsnop, 1989. *Media Literacy Through Critical Thinking*. Teacher Materials.
https://depts.washington.edu/nwmedia/sections/nw_center/curriculum_docs/teach_combine.pdf

- [30] Media Literacy & Critical Thinking Online tools and Resources. Office for Targeted Violence and Terrorism Prevention.
https://www.dhs.gov/sites/default/files/publications/digital_media_literacy_draft_v5.pdf
- [31] Susan Luft. Media Literacy Is Critical. <https://www.literacyworldwide.org/blog/literacy-now/2016/12/16/media-literacy-is-critical>
- [32] УНИЦЕФ стартира кампания за дигитална грамотност - "Ново поколение с критично мислене". <https://www.unicef.org/bulgaria/>
- [33] M. Chedid, H. Alvelos, L. Teixeira (2018) Characterization of Knowledge Sharing and Collaboration Practices in a Portuguese University: An Empirical Study, *ICERI2018 Proceedings*, pp. 5764-5774.
- [34] Tsvetkova, E. Libraries Today and Tomorrow. The Contemporary Library as a Reautomated System Project: A Scientific Study. Sofia, Publishing House "Za Bukvite – O Pismeneh", 2018. – 114 p.
- [35] K. Mincheva, P. Mukanova, S. Eftimova. Scientific, Educational and Cultural Social Dialogue Between Teachers and Students in the University Environment, *EDULearn20*, 12-th International Conference on Education and New Learning Technologies, Palma / Spain, 6-7 July 2020, p. 2855-2861, 2020.
- [36] Rasheva-Yordanova, K., S. Toleva-Stoimenova, B. Nikolova, I. Kostadinova. Informing and Digital Literacy in Conditions of Digital Divide. In: Conference Proceedings of 10th Annual International Conference of Education, Research and Innovation (ICERI), Seville, Spain, 2017, pp. 6827-6832.
- [37] Trencheva, T., M. Lazarova, S. Denchev, C. Basili. Innovative Strategy of Intellectual Property Education in the Digital Age. // In Conference Proceedings: 13th International Conference on Education, Research and Innovation, 9th – 10th November 2020, Seville, Spain, ICERI 2020, pp. 2799-2804. ISBN: 978-84-09-24232-0 ISSN: 2340-1095
- [38] M. Traykov, M. Trencheva, R. Mavrevski, A. Stoilov, I. Trenchev. Using Partial Differential Equations for Pricing of Goods and Services, *Scientific Annals of Economics and Business*, vol. 63, no. 2, pp. 291-298, 2016.
- [39] T. Trencheva, T. Todorova, E. Tsvetkova. Intellectual Property Training of Library and Information Management Bachelor's Students. In: *Information Literacy: Key to an Inclusive Society: 5th ECIL*, Saint Malo, 2017, Springer-Verlag, Heidelberg, 2017, pp. 294-302. - (Communication in Computer and Information Science, Vol. 810).