

INTED **2020**

14th International
Technology, Education and
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2-4 March, 2020 - Valencia (Spain)

CONFERENCE PROCEEDINGS



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2. For Look In, choose Select Index.
3. In the Index Selection dialog box, select an index, if the one you want to search is available, or click Add and then locate and select the index to be searched, and click Open. Repeat as needed until all the indexes you want to search are selected.
4. Click OK to close the Index Selection dialog box, and then choose Currently Selected Indexes on the Look In pop-up menu.
5. Proceed with your search as usual, selecting other options you want to apply, and click Search.

For Acrobat 7 and earlier:

1. In the "Edit" menu, choose "Full Text Search".
2. A new window will appear with search options. Enter your search terms and proceed with your search as usual.

THE NECESSITY OF INTELLECTUAL PROPERTY TRAINING IN THE MEDIA INDUSTRY: SURVEY RESULTS FROM PRACTICE

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Abstract

Introduction: The information society of the 21st century accelerates the development pace of human intellectual activity. Unique creative results in the fields of industry, science, literature, and art are being created. People receive knowledge of what is happening around the world mainly through the possibilities of the Internet. Digitalization helps the media industry to become the fastest growing industry in the world. The media world is being transformed and this process of change is increasingly being influenced by economy, technology, and social factors. The tendency for free use of journalistic materials in the digital space for commercial purposes is becoming more and more obscene. The outlined issue gathers relevance both at national and international levels, but research on intellectual-jurisprudence literacy in the media industry is lacking, explaining the actuality of the current report.

Aim of the paper is to present main findings from the empirical study dedicated to the level of awareness among professional journalists on issues related to the intellectual-jurisprudence aspects of the media sector.

Methodology: The following specific methods are used to achieve the purpose of the research and to solve the research tasks: statistical method, surveys, synthesis, graphic representation and tabular presentation of the processed and summarized information.

Presentation: This paper presents a research on the awareness and attitude of professionals working in the media industry towards the use of copyrighted items in the Bulgarian media sector. An analysis of the results of the conducted survey is performed and summaries and recommendations for future development are created. For this purpose, methodology and original questionnaire were developed. The analysis is the result of an online national survey on the attitude and awareness of professional journalists towards issues related to the organization and management of intellectual property in the media industry in Bulgaria, which took place between April 28 and June 26, 2018, outlining main trends, conclusions and recommendations.

Results and Conclusion: The analysis of the results show that the intellectual-jurisprudence competency of the media workers is not at the required level, there is a real need for additional knowledge and training. The existing models and good practices in Europe and the world are not known in Bulgaria. The contemporary world imposes new requirements on the competencies and knowledge of journalists working in the media today, as well as for students trained in such professional fields. On their end, editorial offices and journalistic organizations have to create and enforce copyright policy as an important and necessary tool to bring clarity about copyright compliance in relation to emerging issues in the provision of journalistic products – both traditional and online. This requires a high copyright competency of media managers and owners. The incorporation of copyright education into university curriculums is natural and necessary. Further training of current journalists is needed. A change in the current legislative and regulatory framework is merited. Findings of the survey reveal that journalists are positive about raising awareness on the topic of intellectual-jurisprudence in the media industry.

Keywords: Copyright, intellectual property, digitization, journalism, media industry, intellectual competence.

1 INTRODUCTION

The information society of the 21st century accelerates the pace of development of human intellectual activity. Unique creative outputs are created in the field of industry, science, literature, and arts. The work of the journalists who create them – practicing this profession, remains hidden, unclear. In other words, the more the media exist, the less we know about journalists and the key features of their profession. What's more, the journalistic profession is no longer a calling. The chronic problems on the native media scene, the social facts from the biographies of journalists affect their specific professional realization. The legal rights of authors of creative products in the media are intellectual property rights.

Intellectual property is directly linked to the information contained in its objects, and in this sense the information sources on the Internet can be referred to the intellectual property objects. „Intellectual property is the ownership of the information that intellectual products contain and their creators have full ownership of it” [1]. In other words, intellectual property rights must be regarded as objective and subjective law, school discipline and science. Many discussion questions are raised on the outlined issues, and they are discussed at different levels – legislative and executive power, at different forums of the scientific and cultural community, but there are no concrete results, which adds to the relevance of the issues discussed in this paper. So far, no research has been conducted on the intellectual property policy in the media industry in Bulgaria, as well as on establishing the copyright competence of specialists in this field. Observations show that this competence is not at the necessary level, there is a real need for additional knowledge and education. Existing models and best practices in Europe and in the world are also unknown. It is also necessary to examine the educational content and programs offered by higher education that meet this range of knowledge and competences. Changes to the legal infrastructure of culture in our country are necessary and forthcoming. However, along with these processes, there should be an advance of problem-oriented training of students in journalism, as well as continuing training of media workers.

The present analysis is a result of an online national survey on the attitude and awareness of professional journalists on issues related to the organization and management of intellectual property in the media industry in Bulgaria. The analysis of the survey outlines the main trends, conclusions and recommendations.

2 THE AIM, BACKGROUND AND METHODOLOGY OF THE SURVEY

2.1 The Aim

The empirical study is entitled „Intellectual Legal Competence of Media Industry Workers in the Republic of Bulgaria” and aims to identify, analyse and summarize the extent to which respondents – journalists – working and freelancers, and journalism students, are familiar with copyright issues directly relating to the media – run by or working in the media, and the services they provide to consumers. It is also investigated the extent to which they are aware of copyright issues in university lectures, in practice, and how they relate to copyright issues on the Internet. A survey was conducted on the intellectual competence of media workers. The target group of the survey is preferred by acting journalists, reporters, photo reporters, managers, columnists, publicists, editors-in-chief of media in Bulgaria and those in Bulgarian publications abroad.

2.2 Background

In order to achieve balance, the level of knowledge and awareness of the problem of intellectual property and the attitude to the problem of intellectual property are examined. In the framework of the empirical research several research tasks are solved, such as: Identification of intellectual and legal aspects in the media industry; Study, presentation and analysis of the legal framework and institutional provision and interpretation of the connection between the media industry and intellectual property (IP), incl. objects, bearers and intellectual property rights; Analysis of the contemporary challenges that IP faces in the media industry at the threshold of the digital single market; Study, analyse and summarize the level of awareness among professional journalists on issues related to the intellectual property aspects of the media sector. The empirical study was organized and conducted between 28th April and 26th June 2018.

2.3 Methodology

The data was collected using the Google Survey online survey tool, which is part of the Google Forms virtual environment for form creation. Following the closure of the online survey on 26th June 2018, all survey materials were subjected to logical review and control, after which the data were entered and subsequently processed with the Excel 2016 statistical package. The data were collected with the help of an authoring questionnaire specially designed for the purposes of the survey and compiled for the needs of the particular survey. The questionnaire includes a total of 40 questions, both closed and semi-open questions (by applying the 5-point Likert scale) and open questions prepared in accordance with the objectives of the study. The questionnaire consists of **four panels of questions**: the first panel is aimed at establishing the knowledge and awareness of the respondents on the issues of copyright of journalistic materials and intellectual property in the media. The second panel covers questions that

register the respondents' attitudes towards the practical application of copyright policy in media institutions. The third panel covers issues related to the academic and continuing education offered in the field of intellectual property protection in journalism programs. The fourth panel covers questions aimed at acquiring demographic and respondents' educational and professional experience.

3 FINDINGS OF THE SURVEY

Communication with respondents was made via e-mail. None of the respondents' emails came back, i.e. the questions have reached everyone. Thus, the total number of respondents' real questionnaires reached was 800, of which 202 were filled in correctly – i.e. 25% of the respondents answered the survey, which is indicative of the interest of the journalists in the investigated issues. It should be emphasized that no respondent refused to complete the entire questionnaire, all who started it, have completed it. In order to achieve maximum accuracy in the survey of the general population, in view of the specificity of the information received from the survey, a restriction was introduced, aiming as a target group – journalists, reporters, photo reporters, editors-in-chief, media managers, correspondents, columnists, ones managing media, publishers, media owners or freelance journalists in media in Bulgaria and Bulgarian media abroad. These are respondents who cover all media professions with a degree of copyright competence. The survey was conducted in order to guarantee anonymity. All respondents were informed about the purpose of the survey, the data collection and storage procedures, the protection of the information provided, the disclosure of results and they have participated voluntarily.

3.1 Demographics

The general population consists of 202 effectively interviewed adult Bulgarian citizens (working in the media or freelancers), which makes the sample representative of the territory of the country, distributed by type of population place as follows: (1) Capital – 60 (29.8%); (2) Regional Centre – 128 (63.2%); 3. City with population up to 60 thousand – 11 (5.5%); 4. Village – 2 (1.0%); 5. Others – 1 (0.5%). The data presented in this way shows the diverse palette of respondents, because almost half of the media in Bulgaria are concentrated in the capital, and entire regions of the country have a single newspaper, somewhere – two media.

The predominant group of respondents to the survey were representatives of the guild in electronic media (38%); male to female ratio is 41% to 59%; and by age group – the group of 40- to 50-year-olds (29%) and 50- to 60-year-olds (28%) and 30- to 40-year-olds (19%) with more than 20 years of experience in specialist institutions (49%) and between 10 and 20 years of experience – (32%). The sample of participating respondents, working journalists as reporters, photographers, correspondents, freelance journalists, media owners, managers, includes all groups – 43% (87) are those who work on a daily basis in the profession, 31% (63) are freelancers. It seems that 13% (26) of the respondents are managers – publishers or media owners, and also 13% (26) have responded that they work as journalists. I.e. in 13% of cases media owners also work as journalists in their own media, thus attracting readers, meaning, there is a merger of posts and positions. This is further proof that social life allows liberalization and entrepreneurship. And the possibilities for experimentation are limitless. Traditional media loses the competition with the electronic ones, the so-called „new” media, as evidenced by the respondents' answers to the question „What type of media do you work in?” – only 10% (20) of the respondents work in traditional media; 38% (76) – in electronic, 26% (53) combine journalism in traditional and electronic media. 26% (53) answered that they do not work in either type of media. 26% work in two different media at the same time, which confirms the liberalization in the media. The fact that only 10% work for traditional media is a proof of the fundamental change that the press is undergoing. 31% of respondents are freelance journalists without specifying their employment relationship with their employer. Clearly, it is not an employment contract. Considering the specificity of media work, this percentage implies employment of a civil contract, part-time work and very often unpaid work.

3.2 „Intellectual Legal Competence of Media Industry Workers in the Republic of Bulgaria” – Survey Results.

The main questions on the topic are organized in three panels. The first panel of the survey includes questions about the level of awareness and the respondents' attitude to copyright.

Question № 1 „To what extent are you interested in copyright issues?” from the survey questionnaire allows respondents to self-assess their level of awareness of copyright issues. The results

show that 37% (75) of the respondents rate their awareness as high. 22% (44) rate their awareness as very high and 33% (67) as average. 7% (14) and 1% (2) have low interest. This is a fact that gives hope that after training or a series of trainings, these respondents may already fall into the „well / high interest and knowledge” column.

Regarding the answers to **question № 2. „What do you know about copyright”**, 52% (105) of the respondents said they were somewhat familiar. Only 27% (55) are well aware in copyright, 15% (30) admit they have little knowledge of copyright. This is an encouraging fact because after training or a series of trainings, these respondents may fall into the “I am well aware” column. It is a curious fact that 3% (6) say they know nothing and 3% (6) know everything (See Fig. 1).

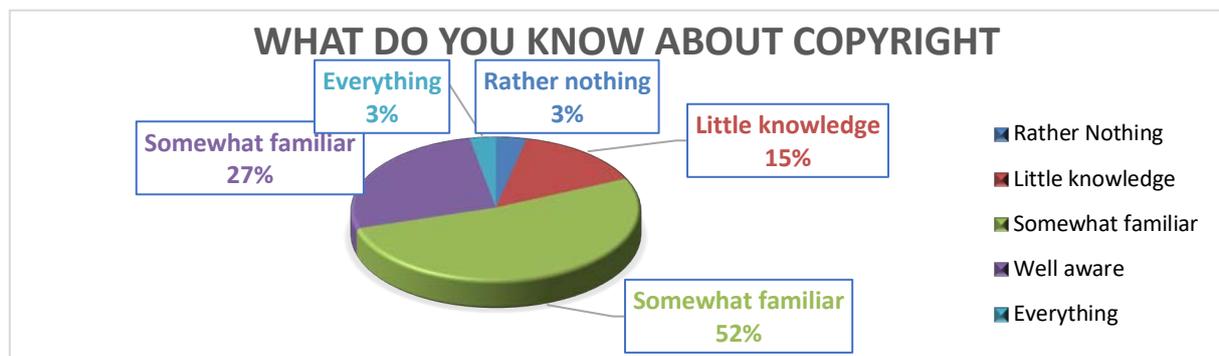


Fig. 1 Distribution of Respondents by Knowledge of Copyright.

To **question 3. „Which is the copyrighted institution in Bulgaria?”** the respondents were in doubt between the Patent Office and the Ministry of Culture, respectively 40% (81) answered this way. 7% (14) reported „Other” indicating no awareness. 13% (26) set the Ministry of Justice as indicating their low level of awareness of the issue, which is a worrying fact (See Figure 2).

To **question 4. „Does your profession require knowledge and awareness in the field of intellectual property”** – 67% (136) of the respondents believe that the profession they practice in the media requires having knowledge in the field of intellectual property. 14% (28) believe that knowledge should be as high as possible, 11% (22) – minimal. 6% (12) do not think they need to know what intellectual property is, because their profession does not require it, and 2% (4) are not at all interested in this issue.

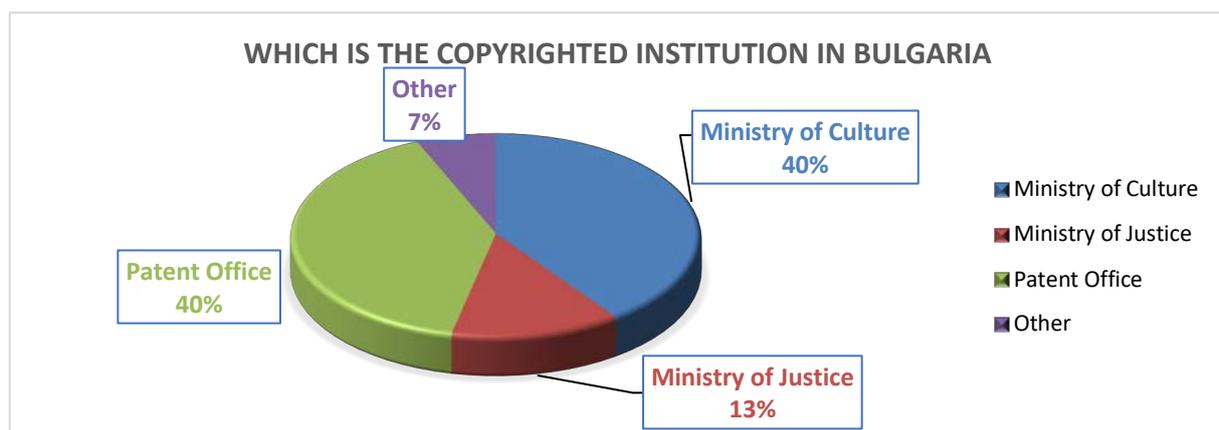


Fig. 2 Distribution of respondents according to their knowledge of the institution that is involved in copyright in Bulgaria.

This result confirms the claim that journalists are self-critical about their own profession, as a modern and contemporary profession, reasoning and not reconciling with mediocrity, striving for education. Because the nature of education is often not essential and professionals generally do not divide by graduated journalism and other higher education, it is enough that they pursue a modern and contemporary profession, practiced by many and well-educated people, who in most cases have dedicated themselves to their craft. In the presented results of Fig. 3, it is clear that more than half of

the respondents say that they are aware of what material is copyrighted and which are not copyrighted, and we should be entitled here to the notion of journalistic material to be taken into account in their diversity, such as interview, reportage, commentary and texts of a journalistic nature. The ratio in favour of acquaintances is 55% (111), against 45% (91).

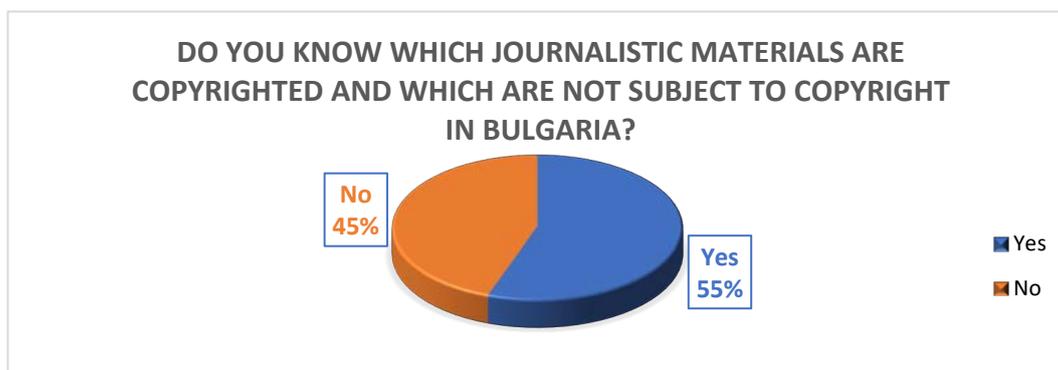


Fig. 3 Distribution of respondents in terms of their awareness of which journalistic materials are copyrighted and which are not subject to copyright in Bulgaria.

There are several institutions that research, use, store, make publicly available information about intellectual property. Therefore, the people who work in the media were asked **question 7. „Where would you look for information if you wanted to know more about copyright and its connection with the institution you represent?“**, respondents cited journalists as the source of information mostly – 277 times, followed by the Patent Office and lawyers – 123 times each; 84 of the respondents will search for information in the specialized literature, 57 times on websites. There are 37 respondents that chose the organizations of journalists – the Union of the Bulgarian Journalists, as well as to the Ministry of Culture. The European Association of Journalists in Bulgaria has been cited only 27 times as an institution with copyright information. Finally, the World Intellectual Property Organization (WIPO) was cited 27 times as an opportunity. (See Table 1) This fact clearly speaks to the low awareness of journalists in Bulgaria and underlines the need to be trained.

In answer to **question № 7 „Where would you look for information if you would like to learn more about copyright and its connection with the institution you represent?“**, the distribution of answers is as follows:

Table 1 Information about intellectual property.

<i>Where would you look for information if you would like to learn more about copyright and its connection with the institution you represent?</i>	<i>No.</i>	<i>%</i>
Journalists	16	8
Lawyers	123	62
Specialized literature	84	42
Websites	57	29
Blogs/Podcasts	9	4
Patent Office	42	21
Ministry of Culture	37	18
UBJ – Union of the Bulgarian Journalists	37	18
European Association of Journalists in Bulgaria	27	13
WIPO – World Intellectual Property Organization	31	15
Other: consulting firms, I do not know, the law, lex.bg, Google	6	2

The response rate exceeds 100 – (232), as the respondents indicated more than one answer. It is interesting to track the attitude of professionals from where they prefer to obtain information on intellectual property issues. 62% of the respondents cited lawyers as the most important source, and 42% expect to find answers on topics that affect copyright law in terms of the activities of journalists and the media in the specialized literature. This is an indicator that shows the need for literature on the subject by our authors and for translations of materials by renowned foreign experts and organizations in Bulgarian. Respondents also favoured websites (29%) and the fourth place is for the Patent Office as a source of information – cited by 21% of respondents. It is necessary to pay attention to the relatively low number of those who cited as an important source of information – Ministry of Culture (18%), UBJ – Union of the Bulgarian Journalists (18%), Association of European Journalists in Bulgaria (13%) and WIPO – World Intellectual Property Organization (15%). This proves the important role of professional associations and organizations in the continuing training of professionals and as consultants in their daily practical work. The low percentage of respondents who cited journalists, blogs / podcasts, and others as: Google, lex.bg or I do not know, is explained by the fact that journalists are aware that there are no competent specialists on the subject among them or there are too few. The study emphasizes the need to develop a new Media Law that corresponds to the new conditions on the media market. There is a deficit of specific provisions regarding the work of media.

With regard to journalistic professional organizations – there is a conviction that there is no need for a structure to offer union support to media professionals. UBJ is the only professional organization whose membership, however, limits to obtaining a membership card in order to gain easier access to public and cultural sites. And the purpose of such an organization is to provide valuable collegial support, to support colleagues, to protect the rights of journalists.

This fact is also undoubtedly emphasized in the answers to **question 8. „Are you familiar with the different types of e-environment security licenses?“**. 56% (113) of the respondents said they were unfamiliar, only 2% (4) knew the licenses completely, 32% (65) said they knew the licenses to some extent. 3% (6) are not interested, only 7% (14) said they know them to a great extent.

To **Question № 9. „Is it necessary to raise awareness of the guild on copyright issues“**, 40% (81) said „Definitely Yes“. None of the respondents said „Definitely No“. They were positive and answered with „Yes“ – 35% (71) and „Rather yes“ – 23% (47), which determined their need and desire to be informed. (See Fig. 4)

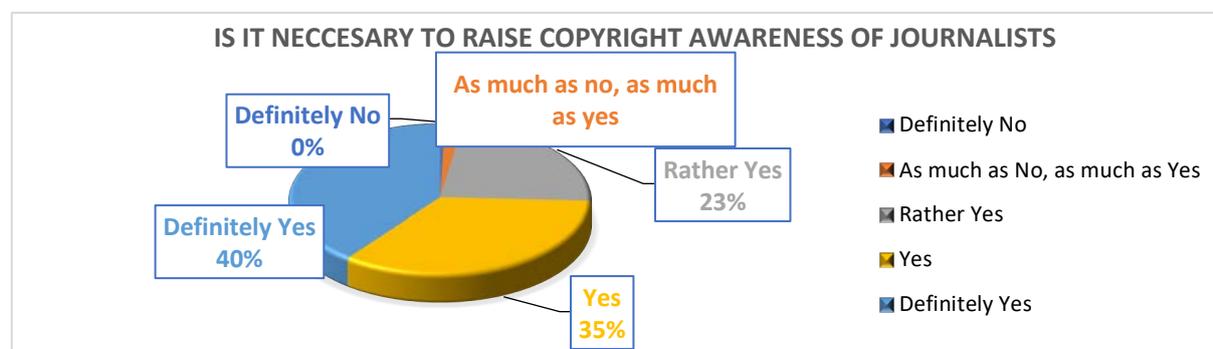


Fig. 4. Distribution of respondents to the need to raise awareness of copyright issues.

To **question № 10 for a change to the Law on Radio and Television**, 29% (59) of the respondents indicated „Definitely Yes“ that changes should be made, 36% (73) gave a positive „Yes“, 25% (51) said „Rather Yes“. (See Fig. 5)

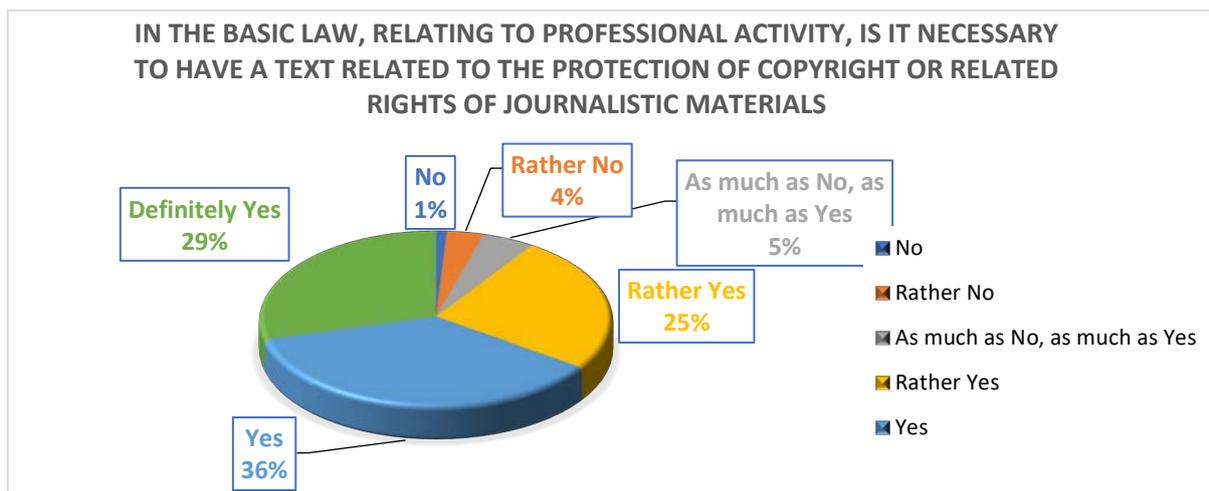


Fig. 5 Distribution of respondents to the need to raise awareness of copyright issues.

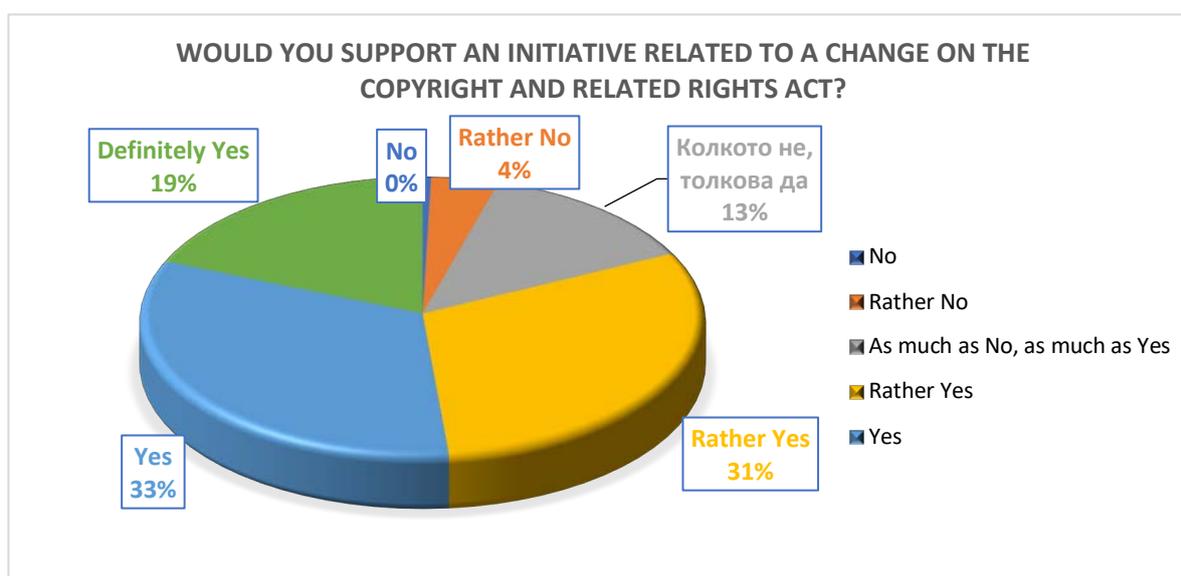


Fig. 6. Distribution of respondents to their willingness to support an initiative for change in the CRRA.

To Question № 11. about a **change to the Copyright and Related Rights Act** (See Fig. 15), 33% (67) of the respondents indicated that they were ready to support an initiative related to a change, while another 31% gave a „Rather Yes” vote (63) and 19% (39) with „Definitely Yes”. „As much as No, as much as Yes” regard to a change in the CRRA, answered 13% (27) (See Fig. 6).

Respondents' answers to question № 12 „**Are you interested in international media initiatives...**” are scattered on all scales (Fig. 7) – „No” – 10% (20), „Rather No” – 26% (52), „As much as No, as much as Yes” – 15% (30), „Rather Yes” – 19% (40), „Yes” – 22% (44) and „Definitely Yes” – 8% (16). None of the respondents said „No”, but there was no consensus on the issue. All this indicates that the guild is not ready for newness, is unfamiliar with international experience and timidly approaches the big changes, but shows a positive attitude (See Fig. 7).

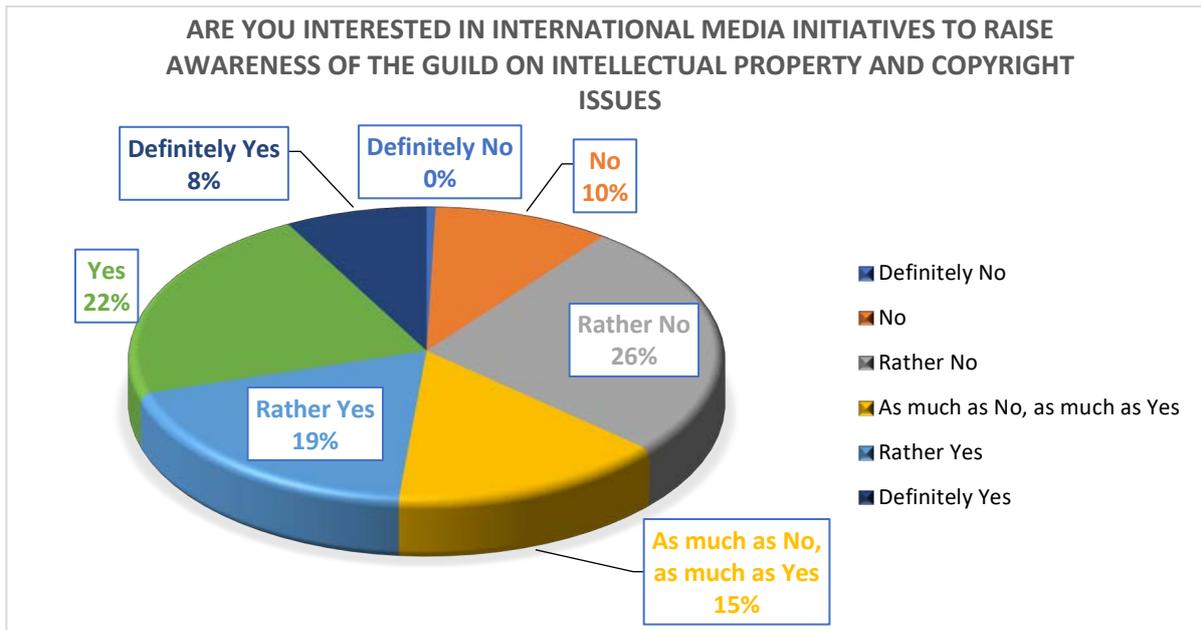


Fig. 7. Distribution of respondents on the interest of international media initiatives in raising awareness of the guild on intellectual property and copyright issues.

Despite of the more neutral attitude of the respondents towards the application of copyright and related rights on practice in journalism in the answers to question 13, altogether 82% of them show a positive interest in their infringement, respectively: 22% (44) – answer „Rather Yes“, 23% (47) – „Definitely Yes“, 37% (75) – „Yes“. The answers to the next question 13 – Question 13.1. „What should be the attitude?“, the respondents answered with four possible answers: 40% (81) „Strictly negative“, 29% (59) – „Rather negative“, 12% (24) – „Neutral“ and 19% (39) – „Positive“. This gives hope that attitudes can change, despite the high percentage of those encouraging copyright infringement. The findings determine the need and willingness of the respondents to be informed (See Fig. 8).

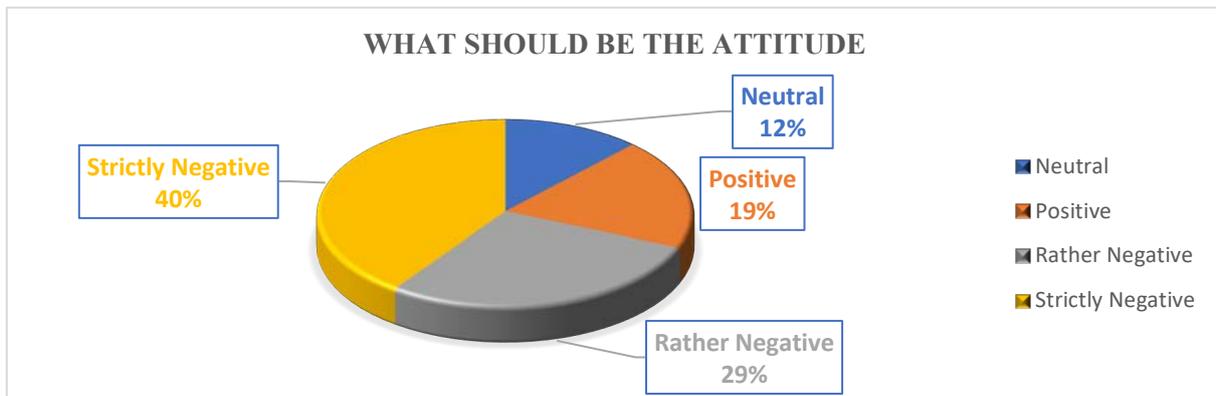


Fig. 8. Distribution of respondents on the attitude – what it should be about copyright and related rights infringement.

These findings prove the relevance of this study and of the project concept as a whole, which responds to the real needs of the studied target groups and is aimed at stimulating and renewing the connection: academic education – professional sphere.

4 CONCLUSIONS

The results show that the interviewed specialists are clearly aware of the need to take specific actions to acquire knowledge in the field of intellectual property protection, and in particular to increase their copyright literacy, awareness and knowledge. We can expand the range of opportunities by including qualification courses, as well as online courses, consultations, etc., in addition to the thematic seminars.

These forms have proven over time their qualities and reliability, the results of their implementation quickly become a fact. Other forms of information for professionals, especially for those that assume remote access and the accessible via the Internet, should not be overlooked.

Pluralism in the media is fundamental, but nonetheless, for its implementation in the media sector in Bulgaria – periodicals or traditional electronic media – radio and television, aside, laws such as the Copyright and Related Rights Act, the Consumer Protection Act, Services Activities Act, Act on Protection and Development of Culture, Act on Creative Funds, Property Law, regulations and codes. There is a lack of a comprehensive Media Code to govern the functioning of the media sector. Although modern technologies erase the tracks of intruders, no one bothers to publish foreign material. The digital copy, and all media have their own electronic edition, is a perfect copy of the original – an unlimited number of copies can be made.

The whole study suggests that respondents have divergent interests and that any attempt to recommend and improve the media environment is likely to be unsuccessful. That is why action is needed.

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REFERENCES

- [1] T. Trencheva, *Open Access to Scientific Information*. Sofia/Bulgaria: Za bukвите – O’Pismeneh, pp. 203, 2013.
- [2] M. Lazarova, The Challenges of New Technologies to Copyright. // Proceedings of Scientific Seminar, 28th April 2014, ULSIT, Sofia. – Sofia: Za bukвите - O’Pismeneh, pp. 89 -105, 2014.
- [3] T. Spasov, Journalism in Bulgaria is a difficult and low-paid profession, *Offnews.bg*, 17.10.2017 г. Retrieved from URL <https://offnews.bg/medii/dva-novi-doklada-zhurnalistikata-u-nas-e-trudna-i-niskoplatena-profes-667498.html>, 2017.
- [4] S. Dimitrova. E-content – intellectual property aspects // 11th International Conference on education and new learning technologies, EDULEARN19 Proceedings, 1st-3rd July, 2019, Palma, Mallorca, Spain, Vol. 11, pp. 6061-6065, 2019.
- [5] I. Peteva, S. Denchev, I. Trenchev, Mixed reality as new opportunity in the preservation and promotion of the cultural and historical heritage, EDULEARN19 Proceedings, pp. 2451-2456, 2019.
- [6] E. Tsvetkova. *Libraries Today and Tomorrow. The Contemporary Library as a Reautomated System Project : A Scientific Study*. Sofia, Publishing House „Za Bukвите – O pismeneh”, pp. 114, 2018.
- [7] E. Tsvetkova, I. Peteva, I. Pavlova, Attitude of Bulgarian Library Specialists Towards Use of Library Resources for Mobile Learning. // ICERI2018 Proceedings : 11th annual International Conference of Education, Research and Innovation (ICERI): Meeting the Challenges of 21st Century Learning, Seville, Spain, pp. 838-842, 2018.
- [8] K. Planska-Simeonova, Copyright protection of photographic information in compliance with the new regulations of the European Union, EDULEARN19 Proceedings, pp. 5040-5046, 2019.
- [9] 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(2), pp. 291-298, 2016.