

# The Attitude of the Bulgarian Students towards Intellectual Property in Digital Environment: a National Survey Results

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## Abstract

Intellectual property is directly related to the information, which contains in the objects themselves. In other words, the intellectual property is the ownership of the information, which intellectual products contain themselves, and their creators and legal possessors have full ownership of them. Developing with an unusually rapid pace, the contemporary Information Technologies and based on its INTERNET is a phenomenon not only in geographical but also in socio-legal sense. The INTERNET is changing the familiar socio-economic paradigms, and intellectual property rights are no exception to this.

The problems investigated and studied in this paper are gaining currency with a view to the increased role and importance of the INTERNET, which has become an integral part of look of the modern student society. The fact is that students are the largest group of our society that uses research products, services and materials especially through the WEB Technologies.

The Intellectual property is a special element of information literacy in university information environment, as to develop good skills, students must learn how to use effectively the wide variety of information products and services available in the digital space. The new information civilization including so called knowledge economy imposes new requirements for the competence and appropriate knowledge of modern young professionals, receiving their higher educational degrees. Especially characteristic is that of professional fields related to information and social sciences, as currently these sciences are one of the most dynamically developing. Knowing the specifics of the problem and typical country trends support the formation and development of proper strategies to improve and enrich the curriculum.

The purpose of this paper is to present the results of a national survey as part of a research project for young scientists at the Ministry of Education and Science in Bulgaria and led by Assoc. Prof. Tereza Trencheva. The study gives a real notion of the knowledge level, awareness and attitude of Bulgarian students towards Intellectual Property in the Digital Environment, and outlines directions for future work. Finally are made major conclusions and recommendations.

## 1. Introduction

Undoubtedly produced by the human mind is the incarnation of his spirit, a triumph of mind. The symbiosis of intellect, mind, spirit, ambition and creative searches arose on pedestal the human genius. In this connection created by the human mind and accumulated intellectual wealth establish a new form of ownership - intellectual [1, p.12]. B. Nedelcheva defines Intellectual Property as a composite and complex concept, based on the legal protection of intellectual performance and other objects of Intellectual Property Rights [2, p. 62].

Bulgaria appreciates the importance of protecting intellectual property and is in the process of building its National Strategy on Intellectual Property. In analyzing the current state of the problem is reported that at the moment is an accelerated process of digitization of content (text, images, performances, recordings), driven by the growing level of computerization and INTERNET use. Among the main priorities of the National Strategy on Intellectual Property are provided social and educational measures to achieve the objectives. In "Public Policy for Education in Intellectual Property" and indicated the need for education at the level of specialized secondary schools and universities, as well as specialized training to build knowledge and skills for Intellectual Property Management at the institutional level.

As it was underlined in the *abstract*, the Intellectual Property is a special element of information literacy in university information environment, as to develop good skills, students must learn how to use effectively the wide variety of information products and services available in the digital space. The new information civilization including so called knowledge economy imposes new requirements for the

competence and appropriate knowledge of modern young professionals, receiving their higher educational degrees. Especially it's characteristic of professional fields related to information and social sciences, as currently these sciences are one of the most dynamically developing. Knowing the specifics of the problem and typical country trends support the formation and development of proper strategies to improve and enrich the curriculum.

This paper presents findings from a national study on the Attitude of the Bulgarian students towards intellectual property in digital environment. The findings and conclusions are expected to help the education in the professional field "Public Communications and Information Science" and to find out gaps in Intellectual Property competences of Information specialists and take measure to fill the gap.

## **2. The Aim, Background and Methodology of the Survey**

### **2.1 The Aim**

The main goal of the national survey "The Attitude of the Bulgarian Students towards Intellectual Property in Digital Environment" is to investigate the actual Intellectual Property knowledge, awareness levels and attitude of the Bulgarian students towards Intellectual Property in the Digital Environment.

In this paper, following research questions are explored:

- what are the main types of infringements of intellectual property objects on the Internet;
- what is the attitude towards infringements in the use of intellectual property products on the Internet.

### **2.2 Background**

This study is carried out as part of a scientific project for young scientists "Analysis of the Common Practices in the Use of Products of Intellectual Property in University Information Environment", funded by National Science Fund of the Bulgarian Ministry of Education and Science and led by Assoc. Prof. Tereza Trencheva. At the first phase of the project, a survey instrument was developed and a national survey was conducted. nine Bulgarian universities were involved in the survey and it was conducted during October – November 2012. Detailed information about the survey is presented under methodology.

### **2.3 Methodology**

A survey instrument was developed by the authors in order to collect data from students who study in professional field "Public Communications and Information Science", regarding their knowledge, awareness levels and attitude of intellectual property issues. Because of the national scope, during the development of the questionnaire, national legislation and WIPO guidelines were primarily used.

The questionnaire consists of 25 main questions and includes mainly closed (some based on 5-point Likert Scale) and few open questions.

As mentioned earlier, survey was conducted in nine universities, in five towns in Bulgaria, accredited to carry out training in the professional field "Public Communications and Information Science". To achieve maximum accuracy in the study of general aggregate, with a view of specificity obtained from the survey data, there is a limit, which relates only to students in degree "Bachelor". The study was done on the principle of systematic random selection with stratification to 10% of the students in the professional field "Public communication and information sciences". Data collection was carried out by both the team and specially hired for this purpose interviewers. Survey data is processed by the statistical package SPSS (Statistical Package for the Social Sciences) for Windows 21.0. Descriptive statistics were mainly used for data analysis.

## **3. Findings of the Survey**

The survey garnered 570 totally complete responses by nine Bulgarian universities: (1) State University of Library Studies and Information Technologies - 190 (33,3%); (2) Sofia University - 180 (31,6%); (3) Burgas Free University - 60 (10,5%); (4) Veliko Turnovo University - 40 (7,0%); (5) University for National and World Economy – 38 (6,7%); (6) Shumen University – 22 (3,9%); (7) South-West University – 16 (2,8%); (8) New Bulgarian University – 13 (2,5 %); (9) American University in Bulgaria – 10 (1,8%).

### **3.1 Demographics**

Out of 570 respondents, 65% are female and 35% are male. Majority of participants are aged to 30 (92%). This is followed by those in the age range of 30-40 (6%). 1% of respondents are aged between 40-50 and 1% didn't mark this question.

### 3.2 Intellectual Property knowledge, awareness levels and attitude of the Bulgarian students towards Intellectual Property in the Digital Environment.

Interest are the answers to the question on the opinion of the respondents about who earns mainly by the proliferation of unlicensed software. Table 1 presents descriptive statistics of the results of the issue of profit of unlicensed software.

Questions	Min	Max	M	SD
Profit of the Internet content providers	0	5	3.18	1.50
Profit of Distributors of torrent trackers	0	5	3.62	1.35
Profit of Internet providers	0	5	2.99	1.59
Profit of Others	0	5	2.40	1.42

Table 1. Descriptive statistics of the results

The table shows that the answers to this question vary the full range of options, namely from 0 to 5, in this case, 0 means "don't earn" and 5 - that "earn a lot". Therefore it is necessary to make the distribution of answers of the respondents on the items of the scale of this issue (see Table 2).

Questions	0 – don't earn		1 -		2		3		4		5 – earn a lot		
	No	%	No	%	No	%	No	%	No	%	No	%	
Earn:	Internet content providers	40	7.0	44	7.7	76	13.3	134	23.5	126	22.1	128	22.1
	Distributors of torrent trackers	18	3.2	28	4.9	69	12.1	95	16.7	162	28.4	179	31.4
	Internet providers	57	10.0	55	9.6	71	12.5	127	22.3	123	21.6	112	19.6
	Others	18	3.2	35	6.1	68	11.9	87	15.3	62	10.9	60	10.5

Table 2. Distribution of the respondents answers to the items of the scale

It is noticeable that almost 60% of students know who earns mainly by the proliferation of unlicensed software, namely distributors of torrent trackers. The following chart displayed discussed above opinions and shows the profile of the opinions of students on the profits of unlicensed software (see Figure 1).

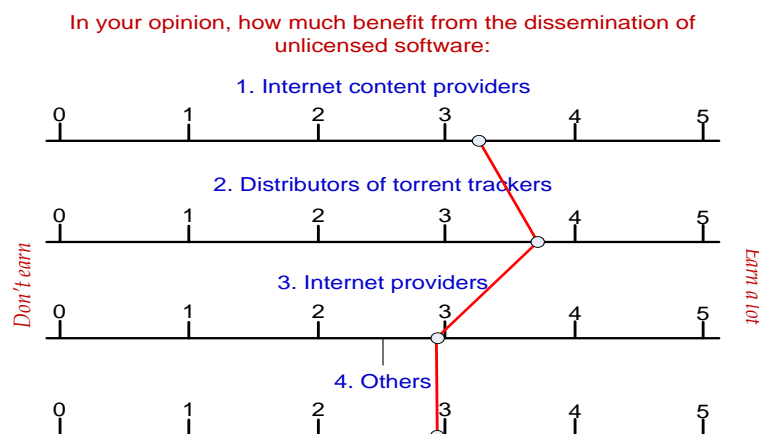


Fig. 1 Combined profile of the respondents answers

**Figure 1** show that the respondents without hesitation declared that in their opinion undoubtedly the distributors of torrent trackers earn a lot and that require timely action by the cultural and creative industries for the termination of this type of infringement of Intellectual Property. Furthermore, it is apparent that in the opinion of all respondents that somehow relate to business with unlicensed software are at the right end of the continuum, so tend to view "earn a lot".

Regarding the issue in **what extent the respondents are interested in copyright issues when using educational materials on the Internet**, there is a really worrying trend, as only 7.7% of respondents are interested in copyright of the material, which benefit for educational purposes on the Internet, 16.8% are moderately interested, which is very unsatisfactory level of their awareness. A huge percentage of students who have not thought at all for copyright of such materials (32.3%), and almost 43% of respondents are not interested in this issue.

Respondents are interested in a small degree of copyright materials used for educational purposes. More enhanced is the interest in students who have already studied the discipline related to intellectual propertyt (see Table 3).

The result presented on **Table 3** shows that of copyright material on the Internet for educational purposes, more interested in are students who have already studied such a discipline. This fact can be categorically concluded that the study of the discipline "Intellectual Property Protection" contributes to enhance the interest of students to issues of intellectual property, in particular copyright.

Factor	N	M	SD	F	Sig.
Students studied IP	246	-,16	1,24	9,62	,002
Student that didn't study IP yet	323	-,48	1,18		

Table 3. *Copyright interest in educational materials*

Interest is the analysis of the responses to the issue of knowledge of **how to protect copyright online**. 48% of respondents indicate that they are not aware of any way to protect copyright on the Internet. Asked if they used different materials without complying with copyright holders, 94.2% of respondents answered positively. Asked if they **used different materials without complying with copyright holders**, 94.2% of respondents answered positively.

In the research tools of the study is included a relatively independent questionnaire containing a block of questions that gather information about **the effectiveness of teaching intellectual property in research direction**. The majority of students in courses related to the protection of intellectual property are of the view that the complexity of educational content in the courses and seminars is adequately the specific matter and was appreciated and topicality included in the course topics and issues. Following these two facts naturally and logically is the satisfaction of respondents, discipline, and understanding that it is necessary and useful to promote information and competence for their future career. [3]

#### 4. Conclusion

At the State University of Library Studies and Information Technologies definitely exists an interest in learning discipline related to the protection of intellectual property and established traditions [4]. In the recent years, courses such sustainable educational content present in the curricula of various disciplines, such as their status is "mandatory", "selectable" or "optional".

Students who are studying in the studied professional field are generally familiar with copyright infringements. The above data give grounds to assert that there is a statistically significant difference between the level of awareness of students who studied and students who didn't study discipline concerning issues of Intellectual Property. The students who studied the discipline feel more confident and informed on matters concerning the copyright objects. Worrying is the fact that a large percentage of respondents did not thought about copyright in the use of materials on the INTERNET for educational purposes. Poor is the percentage of those familiar with the ways of protection of intellectual property on the Internet. This fact is particularly indicative of the need for a Strategy on Intellectual Property and by taking concrete measures to limit the unauthorized use of another's intellectual property.



## 5. Acknowledgments

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