International Conference “New Perspectives in Science Education” – 4th Edition
• 20 - 21st March 2015, Florence, Italy •

THE ATTITUDE OF THE BULGARIAN STUDENTS TOWARDS INTELLECTUAL PROPERTY IN DIGITAL ENVIRONMENT:
A NATIONAL SURVEY RESULTS

Assoc. Prof. Tereza Trencheva PhD
Prof. Stoyan Denchev DSc
Assist. Prof. Sabina Eftimova PhD

State University of Library Studies and Information Technologies (SULSIT)
Sofia, BULGARIA
Structure of the presentation

1. Introduction

2. The Aim, Background and Methodology of the Survey
   2.1. The Aim and 2.2. Background
   2.3. Methodology

3. Findings of the Survey
   3.1 Demographics
   3.2 IP knowledge, awareness levels and attitude of the students

4. Conclusion

5. Contacts with the authors
1. Introduction

- Intellectual property is directly related to the information, which contains in the objects themselves;

- 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;

- Intellectual property knowledge can be considered as an element of information literacy of students in university information environment;
1. Introduction

- 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.
2. The Aim, Background and Methodology of the Survey

2.1 The Aim

- To investigate the actual IP knowledge, awareness levels and attitude of the Bulgarian students towards IP in the Digital Environment;
- To explore the following research questions:
  - what are the main types of infringements of IP objects on the Internet;
  - what is the attitude towards infringements in the use of IP products on the Internet.
2. The Aim, Background and Methodology of the Survey

2.2 The Background

- The Young Scientist’s Project "Analysis of the common practices in the use of products of intellectual property in university information environment";
- Two-year project of SULSIT;
- Funded by the National Science Fund of the Ministry of Education and Science;
- The Leader of the Project is Dr. Tereza Trencheva.
2. The Aim, Background and Methodology of the Survey

2.3 Methodology

- The survey instrument was developed by the authors in order to collect data from students, regarding their knowledge, awareness levels and attitude of IP issues;

- The questionnaire consists of 25 main questions and includes mainly closed (some based on 5-point Likert Scale) and few open questions.
2. The Aim, Background and Methodology of the Survey

2.3 Methodology

- 9 universities;
- 5 towns;
- 570 respondents;
- There is a limit, which relates only to students in degree "Bachelor" in the 1st and 4th year of their study;
- 10% of the students in the professional field "Public communication and information sciences" in Bulgaria;
- Survey data is processed by the statistical package SPSS.
3. Findings of the Survey

(1) SULSIT- 190 (33,3%);
(2) SU - 180 (31,6%);
(3) BFU - 60 (10,5%);
(4) VTU - 40 (70%);
(5) UNWE – 38 (6,7%);
(6) ShU– 22 (3,9%);
(7) SWU – 16 (2,8%);
(8) NBU – 13 (2,5 %);
(9) AUB – 10 (1,8%).
3. Findings of the Survey

3.1 Demographics

- **Gender**
  - Female: 65%
  - Male: 34%
  - Without answer: 1%

- **Age**
  - Aged to 30: 92%
  - Aged to 40: 6%
  - Aged to 50: 1%
  - Without answer: 1%

- **Year**
  - 1st year: 50%
  - 4th year: 50%
3.2 IP knowledge, awareness levels and attitude of the Bulgarian students towards IP in the Digital Environment.

Table 1. Descriptive statistics of the results

<table>
<thead>
<tr>
<th>Questions</th>
<th>Min</th>
<th>Max</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Profit of the Internet content providers</td>
<td>0</td>
<td>5</td>
<td>3.18</td>
<td>1.50</td>
</tr>
<tr>
<td>Profit of Distributors of torrent trackers</td>
<td>0</td>
<td>5</td>
<td>3.62</td>
<td>1.35</td>
</tr>
<tr>
<td>Profit of Internet providers</td>
<td>0</td>
<td>5</td>
<td>2.99</td>
<td>1.59</td>
</tr>
<tr>
<td>Profit of Others</td>
<td>0</td>
<td>5</td>
<td>2.40</td>
<td>1.42</td>
</tr>
</tbody>
</table>
3.2 IP knowledge, awareness levels and attitude of the Bulgarian students towards IP in the Digital Environment.

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

<table>
<thead>
<tr>
<th>Questions</th>
<th>0 - don’t earn</th>
<th>1 -</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5 - earn a lot</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>№</td>
<td>%</td>
<td>№</td>
<td>%</td>
<td>№</td>
<td>%</td>
</tr>
<tr>
<td>Earn:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Internet content providers</td>
<td>40</td>
<td>7.0</td>
<td>44</td>
<td>7.7</td>
<td>76</td>
<td>13.3</td>
</tr>
<tr>
<td>Distributors of torrent trackers</td>
<td>18</td>
<td>3.2</td>
<td>28</td>
<td>4.9</td>
<td>69</td>
<td>12.1</td>
</tr>
<tr>
<td>Internet providers</td>
<td>57</td>
<td>10.0</td>
<td>55</td>
<td>9.6</td>
<td>71</td>
<td>12.5</td>
</tr>
<tr>
<td>Others</td>
<td>18</td>
<td>3.2</td>
<td>35</td>
<td>6.1</td>
<td>68</td>
<td>11.9</td>
</tr>
</tbody>
</table>
3.2 IP knowledge, awareness levels and attitude of the Bulgarian students towards IP in the Digital Environment.

In your opinion, how much benefit from the dissemination of unlicensed software:

1. Internet content providers

2. Distributors of torrent trackers

3. Internet providers

4. Others

Fig. 1
Combined profile of the respondents answers
3.2 IP knowledge, awareness levels and attitude of the Bulgarian students towards IP in the Digital Environment.

- 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 the next Table 3).
### 3.2 IP knowledge, awareness levels and attitude of the Bulgarian students towards IP in the Digital Environment.

**Table 3. Copyright interest in educational materials**

<table>
<thead>
<tr>
<th>Factor</th>
<th>N</th>
<th>M</th>
<th>SD</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students studied IP</td>
<td>246</td>
<td>-16</td>
<td>1,24</td>
<td>9,62</td>
<td>0,002</td>
</tr>
<tr>
<td>Student that didn’t study IP yet</td>
<td>323</td>
<td>-48</td>
<td>1,18</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

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

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.
4. Conclusion

- At the State University of Library Studies and Information Technologies definitely exists an interest in learning discipline related to the protection of IP and established traditions;
- In the recent years, IP 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.
4. Conclusion

- 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 IP;
- 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.
4. Conclusion

- 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.
Thank you for your attention!

Dr. Tereza Trencheva  
Associate Professor, PhD at The State University for Library Studies and Information Technologies  
URL: www.ippbg.com  
e-mail: t.trencheva@unibit.bg  
GSM: +359 889 645 400  
Correspondance Address:  
119 Tsarigrdsko Shose Blvr.,  
1784 Sofia - BULGARIA

Prof. DSc Stoyan Denchev  
Rector of The State University for Library Studies and Information Technologies  
URL: www.unibit.bg  
e-mail: s.denchev@unibit.bg  
GSM: +359 878 970 440  
Correspondance Address:  
119 Tsarigrdsko Shose Blvr.,  
1784 Sofia - BULGARIA

Dr. Sabina Eftimova  
Assistant Professor, PhD at The State University for Library Studies and Information Technologies  
URL: www.unibit.bg  
e-mail: eftimmova@mail.bg  
GSM: +359 889 645 400  
Correspondance Address:  
119 Tsarigrdsko Shose Blvr.,  
1784 Sofia - BULGARIA