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HOW TO CULTIVATE INTELLECTUAL PROPERTY LITERACY IN STUDENTS IN A POST-COVID DIGITAL WORLD

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Abstract

The present report aims at finding ways of improving Intellectual Property (IP) Literacy in post-Covid times, characterized by social distancing and distance learning and boom of digital technologies as well. New educational approaches and strategies are discussed for optimizing the process of acquiring “twenty first century” skills and competences in the field of both: industrial property rights and copyright. The main issues and focal points are analyzed in the context of the today’s “new normal” with a vision of tomorrow’s “new future”.

The paper explores the perspectives for cultivating IP literacy in four aspects: (1.) Developing IP literacy as part of the broader process of digital literacy. Having in mind that the current students are “prosumers”/producers and consumers of information/ they need to be digitally fluent in order to be “multidimensional and interactive” participants in a reformed educational process based on new technologies. (2.) Mapping of IP literacy. The chapter explores the impact of visualization tools in training, in particular the creation of maps of IP, constructed in accordance with the specifics of the relevant national legislation and containing the key terms and basic legal theories. The IP maps could serve as real “mind managers” and their contribution as advanced teaching tools has to be re-evaluated. (3.) Building a step-by-step system of tools for evaluation of IP skills and competencies. The evaluating system has to include benchmarks in compliance with the traditional values and adopted academic standards. A properly structured system for evaluation of IP skills would motivate students to develop critical thinking, to experiment and seek innovative ways to apply in practice the acquired IP competences in a digital context. (4.) Strategies for improving IP skills in the “new normal”. The institutional IP policies must take into account the integration of knowledge with an emphasis on interactive methods of communication pursuant to Netiquette. Educational strategies should stimulate development of hybrid teaching practices that guide students in learning about knowledge assembly. They should also motivate students to be mindful consumers and to act ethically as innovative creators.

Keywords: digital literacy, IP rights, copyright, new normal.

1 INTRODUCTION: THE CHALLENGES DURING ISOLATION DUE TO COVID CRISIS

During isolation due to Covid crisis, with the rapid growth of VOD services and new business models, based on protected content, we witness quite a span of digital piracy. IP literacy has become an essential life-skill for people of all ages and countries all over the world [9].

But it has become a factor of crucial importance for students, because they need to have legitimate access to protected content and filter it according to their choices and academic requirements. They have to cope with piles of e-based information and fake sources. More than ever they are “prosumers”, a neologism which refers to their abilities to produce and consume information at the same time. Critical thinking capacities become extremely important for students in order to manage content in a proper way and to decide what is truthful, reliable and valid. So, contemporary students have to develop at least basic IP knowledge and skills as part of their digital literacy [8]. In this way they would be able to make right and informed decisions about what content to access in a highly competitive digital environment. This trend has irreversibly intensified, following mass restrictions and quarantines due to Covid 19. Digital literacy has become *conditio sine qua non* in a post-Covid world which offers unprecedented complex challenges as far as intellectual property is concerned. Nowadays the audiences are exposed to streams of copyrighted content which can be easily infringed like: music videos, images of all sorts or e-books. Apart from that we can observe the spread of counterfeited goods that are mainly sold and advertised through the internet [6], [7].

2 FOCUSING STUDENTS' CRITICAL THINKING AND SOCIAL ACTIVITY: BASIC POSTULATES OF INDUSTRIAL PROPERTY AND COPYRIGHT

This context problematizes the issue how to focus students' critical thinking and social activity in order to build up a proper understanding of the basic postulates of Industrial Property and Copyright? It is appropriate, I think, that the process should take place in the following four phases:

2.1 Developing IP literacy as part of the broader process of digital literacy

It is a well-known truth that digital literacy is not only a technical category that refers to a level of hi-tech skills, but it is a broader capacity to be an active citizen in the Digital Epoch. In short, digital skills are described as the knowledge and ability to use suitable digital tools, to evaluate, use, share and create content using information technology and the Internet. This is considered to be a key competence in today's knowledge-based society which relies on the idea of lifelong learning. The term "digital literacy" was put into use in 1997 by Paul Gilster (1997) in his eponymous book, in which the author distinguishes from the traditional concept of literacy, focusing on the ability to understand, evaluate and use information in multiple formats that computers can provide. The emphasis is on the ability of a person to assess and interpret information by evaluating its sources and putting it into context. According to Gilster, digital literacy is not simply a guide on how to navigate the Internet, but the understanding that it provides fundamental thinking skills and key competencies to orient and solve problems in an interactive environment. In other words, a digitally literate person is "multidimensional and interactive", able to integrate different data sources [1]. The conceptualization of digital literacy rests on three basic capacities:

- to use digital tools and applications
- to critically comprehend, contextualize and evaluate digital content and tools
- to have the knowledge and expertise to communicate, create and publish content with digital technology and to adapt it to different target groups and various contexts.

Being "digitally fluent" includes the full range of specific skills and competencies needed to search, evaluate and process information in electronic form. The outcomes of the process result in development of important functional skills like: the ability to find and select the right source of information or caring for e-safety. Digital literacy has a positive impact on creativity, critical thinking, cross-cultural and social understanding, effective communication and above all on emotional intelligence, without which it is almost impossible to navigate the realm of internet. In brief, it can be summarized that digital literacy involves the convergence of several types of literacy: IT literacy, information literacy, technological literacy, media literacy and visual literacy [11]. Digital competence is defined by the European Union as one of the eight key competences for lifelong learning, which due to its universality allows the acquisition of other key skills, among which are IP competences. Internet provides tremendous opportunities for access to knowledge for the digitally adequate users, but on the other hand there always exists the hamper of excessive supply of information or content, often from dubious sources or in an illegitimate manner. Therefore, the next stage should deal with the educational aspects of the process and in particular with the effective approaches to motivate students to improve their IP literacy as a key skill in a digitally diverse modern reality [12], [13]. Special attention should be paid to some ethical dimensions of the problem, regarding non-infringement of third party rights and the bad impact of piracy on economic benefit and welfare of society.

2.2 Mapping of IP literacy

In this context it is extremely important to find the right way to outline the key issues and focal points of IP in the teaching process and to identify the most convenient way to provide learning materials to students. It is a well-known fact that a rise in data visualization tools is observed in the Digital epoch. Numerous visualization applications enable users to present and interact with large data bases in variety of visual formats. Consequently, it would seem very reasonable to seize these opportunities and to map out the specifics of IP in the most comprehensible and illustrative way. An IP map created for training purposes in an appropriate way, based on correctly selected criteria and synthesizing the extensive study material in a pragmatic style, can serve as an operative mind manager for the students. This approach would also secure their autonomy and self-initiative in studying the intricate and complicated legal matters. Furthermore, the students would acquire basic IP literacy by applying their digital skills. Some wonderful precedents are achieved in this regard, like for example the Maps of intellectual property, created by Wilmer Hale Fisher - Professor of Intellectual Property Law, Harvard University. He

has developed several interactive IP maps, which he calls “mindmaps” [3]. They are designed to be used as teaching aids and are available in five formats: iThoughts, Freemind, Xmind, Mindmanager and Html5. The first four maps summarize the principle rules in the main fields of IP law: Copyright Law, Patent law, Trade mark law and Trade secrets. The fifth map is dedicated to law theories that help scholars and professionals to interpret and apply the sets of legal rules. There is one more map - Business Strategy, which has been developed in collaboration with Prof. Felix Oberholze-Gee of Harvard Business School and is aimed at presenting strategic management of intellectual-property rights. The students have free and easy access to these maps, because they are licensed under CC BY-NC-SA license [10], [14]. This approach means that the users of the maps are entitled to share/copy and redistribute the material in any medium or format/ and adapt it /remix, transform, and build upon the material – that is to create derivatives, / but only under the explicit condition to distribute the contributions under the same license for non-commercial purposes only and obligatory to keep the right to attribution – t.i. to give appropriate credit to the author and point out if changes are made. The students can access the maps at any time and from any place if they have the appropriate software or have downloaded the application. Prof. Fisher updates regularly the maps and they truly constitute a great and advanced teaching tool [3]. Other academic scholars like prof. Tom.W.Bell also demonstrate original attempts to construct an expressive and functional Map in reliance to the subject matter of IP [4]. This educational approach is extremely relevant in present pandemic situation when teaching and learning take place predominantly online. An IP Map, harmonized with the national legislation of the respective country and containing case studies could be a comprehensive and inclusive framework for visual representation of the main regulations in the field of copyright and industrial property. It can be used during lecture courses along with presentations, videos and other visual formats. The advantage of this method is that it strongly stimulates the personal involvement of students in the process and their interaction. The contribution of prof. Fisher for the evolution and encouragement of this approach should be highly appraised. The map representation of the very complex matter of IP can be successfully modified and adapted to the specifics of different national legislations, providing students with great opportunities to acquire and share knowledge.

2.3 Building a step-by-step system of tools for evaluation of IP skills and competencies

As mentioned above, the students need to learn how to assimilate the information, evaluate it, and then reintegrate it into a certain context. They are the future creators who possessing knowledge and will are very likely to foster a dynamic IP system based on sustainable goals that would transform positively social and economic life. Therefore, it is important to establish a system of tools for evaluation of acquired IP knowledge and competences for which the students have to be informed in advance [15].

That system should include in the first place benchmarks in conformity of the adopted academic standards. Then the proper assessment methods should be carefully concerned, without neglecting the trainees' self-esteem. The evaluating methods should refer to the theoretical knowledge, decision making and problem solving skills as well as to practical experience gained in the sphere of IP during training. It is highly recommendable for the training institutions to invest in software, customized with the current evaluation system which could be a tool for assessment the in-depth knowledge and IP competences of students online. The evaluation systems should be stable enough as they have to implement common requisitions that constitute sort of “trade mark” for that particular academic institution, representing its traditional values and educational standards. On the other hand, the system has to include specific benchmarks regarding the assessment of IP skills in dependence of the studied discipline and whether the students are undergraduates or apply for master's degree. By all means the assessment must take into account the student's proactivity in practical classes, internships and especially participation in IP projects or development of own digital IP projects under tutorial guidance. More scores should be awarded for innovative and especially for experimental projects. Properly structured system for evaluation of IP skills would motivate students not only to collect credits but to experiment and to seek innovative ways to apply in practice the acquired IP competences in a digital context.

2.4 Strategies for improving IP skills in the “new normal”

Institutional IP policies should be tailored to the long-standing academic traditions, reformed teaching methods and up to date communication practices. Besides, they should be based on a carefully conceived balance of theoretical knowledge and practical orientation. Universities have to invest in developing new teaching and learning practices with digital technologies.

It is not just about building and updating electronic resources or teaching the staff and students how to use these resources or learn sophisticated search techniques and how to share experience. Students need to develop good filtering tools and learn how to check their sources before exploring them. What is more important, institutional policies must take into account the integration of knowledge with an emphasis on interactive methods of communication pursuant to Netiquette –thus Gilster called the basic Internet etiquette. Netiquette requires to figure out how to integrate the interactive, Internet-based approach into IP educational model. According to Paul Gilster this means to teach students about knowledge assembly. “Knowledge assembly is an activist way of gathering and evaluating materials, integrating network material with traditional materials, and then creating a finished project. It's like a term paper except it might well have multimedia aspects to it, and it incorporates many different sources of information.” [5]. It is rather naive to believe that digital tools are in a position to substitute face-to-face communication and the establishment of personal relationships. But beyond any doubt, the right moment has come for developing of “hybrid” teaching practices that combine the advantages of the “apprentice model” and edutainment, which predisposes self-initiative and even fun in studies or research. Students should be encouraged to benefit from all modern technological tools for IP learning, for interaction and sharing like: e-learning courses, group discussions, instructional strategies through social networks, lesson plans and assessments, virtual workshops and conferences conducted on different web platforms. Students should be involved in projects initiated by the institution or be motivated to develop projects of their own under a virtual tutorial guidance. In this respect it is essential to study and apply selectively international experience. In China for example, IP rights education starts in elementary and middle school as part of a national strategy. The knowledge is constructed in accordance with the principle of ‘one mind, two strengths and three awarenesses: “One mind means developing a curious mind; two strengths refers to problem-solving the ability to act. Three awarenesses are rights, protection and respect.” [2].

3 CONCLUSION

The IP strategies must be rational and stick to clearly defined **pragmatic goals**:

- To train students to analyze the digital environment and search, analyze and use secure and reliable e- sources of information and shorten the time for this by using proper search engines, keywords, etc. Students might learn to evaluate the information according to the criteria: author, official institution, relevance, validity and legitimacy. They have to process, collect, annotate, catalog and store important information. On this basis students might aspire to develop the ability to create and store their own resources.
- To make students think critically and act ethically about IP rights in order to be mindful consumers and innovative creators.
- To help students identify and properly cite sources used according to the adopted system of citation and to respect the attribution right by giving acknowledgement as credit to the copyright holder or author of a work.
- To stimulate Netiquette communication between teachers and students in shared directories: the teacher to upload curricula, presentations and materials, and students to store files using cloud computing technologies.
- To maintain ceaseless electronic connectivity between students and teachers not only by email, but also through the use of various communication programs.
- To stimulate students to participate in IP digital projects and to develop projects of their own.
- To motivate students to create and submit works in electronic format.
- To promote the creation of interest groups in social networks and to create a culture for sharing interesting materials and knowledge in general.
- To make students use AI tools to create copyrighted content and distribute it digitally.
- To foster legal awareness for safeguarding the IP rights and intolerance of digital piracy.

The constant improvement of IP educational strategies would be of crucial importance in post pandemic times when life will not be as we know it. The „New normal” is not exactly an empty cliché, but a metaphor of social distancing, lockdowns, fake news and distance learning. But it is also manifested in the boom of AI and new market opportunities. In this context we have to rethink the value of IP rights and to reform and modernize the educational strategies. Because today’s “new normal” is the soil for tomorrow’s “new future”!

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