Article

Evaluation of Digital Piracy by Youths

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Abstract: This paper sets out to explain how adolescents interpret piracy. Digital piracy is one of the most important risk behaviours mediated by new media to be found among adolescents. It is global, and changes dynamically due to the continued development of the information society. To explore the phenomena related to piracy among adolescent Internet users we need to apply qualitative research methods. The sample contained 1320 Polish respondents. The research used the technique of qualitative research. Data was collected using a form containing an open question. Adolescents will answer in the form how they interpret digital piracy. The categories characterize how piracy is perceived, and includes downloading various files—whether video or music files or even software (also games)—from unauthorized sources (P2P—Peer-to-peer 'warez' servers—websites which serve as repositories of illegal files). The qualitative data analysis allowed the identification of the following constructs in the perception of digital piracy by adolescents: ethical (giving value to the phenomenon), economical (showing profits and losses), legal (connected with punitive consequences and criminal liability), praxeological (facilitating daily life), technical (referring to the hardware necessary), social (the scale of the phenomenon and interpersonal relations), and personal benefits. The results fit into the discussion on the standard and hidden factors connected with piracy. The presented seven categories of the perception of piracy help us better understand the phenomenon of the infringement of intellectual property law and will help to develop appropriate preventive measures. Qualitative research makes it possible to understand the phenomenon of piracy from a deeper perspective, which can be translated into the design of effective educational measures. Preventive guidance on minimising risky behaviour is part of the development of one of the key competences, namely digital knowledge and skills. The research allowed us to enrich the theoretical knowledge on risky behaviours in cyberspace among adolescents (theoretical aim), to understand how to interpret risky behaviours in cyberspace (understanding of micro-worlds—cognitive aim), and to gather new knowledge that will be useful for prevention (practical aim).

Keywords: digital piracy; mechanisms; phenomenon evaluation; adolescents; internet; risk behaviours; P2P; warez; Poland

1. Introduction

The definition of piracy is unclear and its interpretations differ depending on the usage of the term. In this paper, piracy, which is the main variable, means the unauthorised distribution of copyrighted intellectual property. This unauthorised distribution means both downloading and making available digital files without paying the relevant fees. Downloading is only one of the forms of reproduction of the work or subject-matter of related rights. Piracy should therefore be seen in a slightly broader perspective. Additionally, piracy may be the result of the violation of user licences. The term 'piracy' is highly controversial and is interpreted contrary to the governing law. Of course, not every case in which a file is downloaded or made available is automatically classified as piracy. It is an action that goes beyond reproduction within the rules of fair use. It must be emphasised that piracy is, first of all, an activity which deliberately or unconsciously infringes the law. In many cases, piracy is wrongly classified in common narratives and often identified with fair use or unauthorised reproduction. Piracy is also determined by

the available technologies used to make the file available (for example P2P). In terms of the types of downloaded and shared files, piracy is a legally diverse term. Johns [1] offers a synthetic definition of piracy, saying that piracy is first of all the commercial infringement of legitimate intellectual property. The abovementioned discrepancies in defining piracy will also be studied herein.

Despite the wide-ranging scale of informal file exchange, the subject matter literature presents the opinion that different interpretations of digital piracy, along with its legal aspect, leads to discrepancies in the analyses of the scale of piracy and its mechanisms. Furthermore, in some groups the word 'pirate' is still associated with those people who profit financially by selling digital files. Therefore, despite the available data, different definitions of and opinions about piracy can be found in common discourse [2]. For the purpose of this paper, piracy is defined as the activity of downloading, making available, and using digital content, including software, without paying the applicable fee. Thus, digital piracy involves the illegal use, downloading, and making available of products protected by copyright and related rights. In the Polish legal system, the sanctions mechanism for the infringement of the content creator's economic rights is strictly defined in the provisions of the Copyright and Related Rights Act (Ustawa o Prawach Autorskich i Pokrewnych).

Despite legal restrictions, the integration of intellectual property issues into the formal curricula, and the intense efforts of institutions dealing with copyright, piracy has not been fully eliminated in Poland, nor indeed globally. Regular piracy affects only about twelve percent of adolescents—as revealed by quantitative studies of the representative samples [3,4], but when we consider the scale of the economic loss, and soft aspects like ethics or respect for the property of other people, this problem seems to require our attention and analyses from a perspective beyond the quantitative approach. This paper's qualitative research provides a "soft perspective" on the phenomenon of piracy, thus allowing us to fill a cognitive gap in this area and to design innovative educational activities. However, it should be kept in mind that there are different ways of building knowledge and interpreting the phenomenon of piracy. The diversity of interpretations of this blurred term forces the use of triangulation of research tools, which make it possible to use the potential of qualitative research using the positive aspects of quantitative research (research procedure, sample saturation and emerging variables using a large group of respondents). Going beyond the classic methods of data collection and analysis will allow for the redefinition of areas which are still insufficiently understood, such as digital security or protection of intellectual property among adolescents.

Adolescence is a period of intensive use of new media and growth of digital competence. The correct development of digital competence requires first and foremost an understanding of how adolescents interpret the phenomenon of piracy. The next step, on the basis of the data obtained, is to extend official educational programmes to include ethical, legal and social aspects of piracy. The educational dimensions of piracy make it possible not only to strengthen digital competences, but also to protect adolescents and legal guardians from civil, criminal and financial liability. This is an important aspect of young people's understanding of how to use ICT. Education in the field of intellectual property protection is a constant challenge for media pedagogy and related disciplines. It is a multidisciplinary issue which has an extensive knowledge component on the borderline of media pedagogy, law, sociology and ethics.

Its social aspects are more and more often recognised in the subject matter literature as factors that co-exist with or even determine piracy. Researchers who have conducted complex analyses in this area point out that it is those phenomena outside the world of IT, like social learning (especially among adolescents), that are responsible for the mass downloading and making available of copyrighted files [5]. This approach identifies some new research areas and fills the gaps left by existing studies. As one of many significant factors, the social context of piracy forces us to investigate deeper into the various aspects associated with piracy. This paper is one such attempt to discover the reasons, social contexts, and hidden determinants of piracy through learning how adolescents evaluate

the phenomenon of pirating online content. Considering the phenomenon of the global teenager with a set of common characteristics regardless of the place in which they live [6–8], the opinions about piracy gathered in a European country and presented herein provide an opportunity to compare and expand the existing research into other countries. Despite the numerous sociological, economic, IT, and legal publications already available, there is still a need to understand piracy more thoroughly, especially among certain age groups and in certain countries where the illegal downloading and making available of files occurs on a mass scale [9]. The introduction presents the characteristics of piracy in the light of other processes related to the development of the information society. Then, the research methods are discussed, followed by a presentation of the research results and a discussion of the different perspectives for interpreting piracy by adolescents.

The study was an attempt to show which factors determine the way that digital piracy is interpreted by adolescents. The authors employed a qualitative approach in order to understand the mechanisms affecting risk behaviours in the area of downloading software and files from unauthorized sources. The scale of piracy in Poland, as well as countries that share close proximity or are culturally similar, forces us to search for answers not only to questions of horizontal (quantitative) determinants—the scale of the phenomenon—but also vertical (qualitative) factors as they help to uncover the underlying conditions.

The research problem can therefore be formulated as follows: How is digital piracy interpreted by adolescents? This main question was succeeded by a detailed research problem that complements the qualitative perspective. The results of our study are not aimed at showing a causal relationship (gender, type of school, age) but rather at presenting how these independent variables coexist within the interpretations of piracy.

The structure of the article consists of a review of the literature relating to the phenomenon of piracy in the global and local dimension. In this part, the definition related to piracy is presented and the processes that occur together with piracy are shown. In the next part, the methodology of research is defined, presenting the objectives of research and research problems, the procedure of research, characteristics of the research sample. In the next part, the research results are grouped according to the categories that emerged during the literature analysis. The text also includes a discussion with reference to the results of similar studies, as well as directions and methodological limitations resulting from the research procedure and applied analysis techniques.

2. Literature Review

The behaviours associated with piracy were definitely present before the development of the information society. However, due to the practically unrestricted access to file repositories and pirate VOD (Video On Demand) services this phenomenon has become much more noticeable, especially within the creative industry, which has suffered significant losses due to piracy. The phenomenon is considered to be a global one, with many common characteristics regardless of the region. It is present in many countries and is strictly associated with the digital revolution, the commonality of computerisation, and social processes [10,11].

About 7.5 million Poles (out of a population of 38 million) use services that offer illegal access to video content. Depending on the type of content, from 50% to 70% of the people who took part in the PWC study use both legal and illegal forms of movie and TV series streaming services; however, it is the illegal sources which prevail. Thus, it is estimated that one in five Poles regularly use websites that illegally share audio-visual files. The estimated value of the losses incurred through piracy amounts to 500–700 million PLN a year (ca. US dollars 11 855 000) [12]. The data gathered in a recent Deloitte report show that due to piracy in Poland, GDP suffers a shortfall of up to PLN 3 billion every year, the economy has lost 27 thousand jobs and the state treasury has lost PLN 836 million. As the same time, Deloitte experts estimate that every Internet user aged 15–75 uses illegal online sources, thus causing losses to the creative industry [13]. It is difficult to count the losses resulting from piracy globally; however from time to time we can find such estimates in

the subject matter literature from around the world. For example, the American Motion Picture Association claims that in 2005 the movie industry alone lost USD 2.3 billion of income due to online piracy [10]. Of course, the data that show losses should be treated very carefully because, due to the fact that there are different channels of unauthorised file distribution, it is hard to determine the actual scale of piracy. This, in turn, affects the estimations of the real losses for content creators. Considering the data collected during the Global Online Piracy Study, more than 50% of music is downloaded illegally in India and Thailand. Significantly lower shares of illegal music downloads were recorded in Spain (39.5%), Poland (26%), and France and Canada (22%). The lowest percentage of illegally downloaded music files was observed in Japan (8%). As for illegally downloaded movies, the percentage results are similar [14]. Last year, all over the world, users visited 300 billion websites with pirated content, which is 1.6% more compared to 2016. According to data obtained by MUSO, illegal streaming and downloading of TV shows and music are on the increase, whereas traditional piracy, like downloading movies, is becoming less common. As for the number of visits to websites with illegal content, the USA tops the list. Piracy in Poland, like in neighbouring Central-East European countries, is at an average level [15].

Digital piracy has become a common phenomenon. This is true even for countries with a high GDP that is based in large part on the development of computer applications and audio-visual materials. The phenomenon of piracy, despite the legal solutions that currently protect content creators and the distributors of digital products, is common in many countries all over the world [16,17]. The scale of digital piracy depends on many factors, such as the advanced IT infrastructure used to create repositories with links to software, videos, and music. The factors that strengthen this type of risk behaviour on the Internet also include a lack of awareness or a sense of the insignificant social consequences of using "warez services"; a lack of awareness and skills with which to discern the legality of a given source; the insufficiency of what is offered by authorized providers compared to the users' expectations (this especially refers to online services that provide legal access to content); prices out of proportion to the value of the products offered by legal sources in comparison to services that offer cheap file downloads; and the sense of impunity among users who download and share files [12]. The informal circulation of content is also connected with the wide choice of materials and software available online and the fact that these materials are more up-to-date [2].

Reproducing copyrighted files without paying the relevant fees is a global phenomenon. It exists in highly developed countries with high income per capita, measured for example by the value of the gross domestic product, as well as in countries with lower incomes [14]. Piracy also involves similar mechanisms, for example the groups at risk of engaging in these types of behaviours (e.g., teenagers, individuals ignorant of the potential legal consequences, and people with knowledge of IT P2P, and the darknet) [18,19]. It is also global in the context of its consequences: the decrease in income of content creators and the whole creative sector and the slower development of the music, visual, and IT-programming industries [20]. The global character of piracy is noticeable, for example, in the emergence of institutions focused on the protection of copyright [21,22]. The qualitative research results presented in the following parts of the paper reflect the situation in all countries which experience problems with the protection of audio-visual content and software.

Adolescents are particularly susceptible to the temptation of the unauthorised reproducing of files from the Internet. This behaviour results from the fact that the ethical and economical functioning of adolescents and adults is determined by different factors [23]. Adolescents and adolescent adults form the group within society most likely to download files from the Internet. The research results show that only 6% of people aged 40 or over download digital files from illegal sources [2]. Of course, the age argument is one of the many criteria of digital piracy, as the phenomenon is not connected exclusively to adolescents but is also noticeable in older age groups. However, compared to the other groups, the scale of this risk behaviour draws attention to this particular age span [24].

Adolescents also use new technologies in a different way than their parents or teachers [25]. The "children of the Net", that is, those adolescents who are almost always online, use digital media mainly as a communication tool, to create their own image, and as a source of access to multimedia and entertainment [26]. The misuse of ICT generates a wide range of risk behaviours that threaten one's physical, mental, social and moral condition [27]. Digital piracy is also a challenge to the sustainable development of the information society.

One of the mechanisms that reduces the level of digital piracy is awareness-raising campaigns [28]. Developing ethical attitudes towards the use of new media corresponds with the model of developing digital competences defined not only as the technical use of new media but, above all, as the intentional and ethical use of ICT for professional and private purposes [29]. The educational model of shaping awareness among adolescents involves, first and foremost, the diagnosis of the conditions that affect the way digital piracy is perceived. This results from the fact that adolescents do not see this type of online activity as an offence [30]. In order to understand the mechanisms by which piracy-related risk behaviours develop, we must refer first to the mental constructs attached by adolescents to this phenomenon.

Digital piracy may be discussed not only in the light of risk behaviours (the breaking of legal and social standards) and their consequences, but also in terms of those mechanisms that relate to individuals. For example, based on longitudinal studies among adolescents, we know that the key determinant of regular piracy is related to gender and self-control. Boys download files much more often than girls, and self-control is the protective factor [31]. Piracy is often connected with other risk behaviours mediated by new media, like the problematic use of the Internet [32]. At the same time, piracy contributes significantly to other negative phenomena which reduce online safety (e.g., downloading illegal software that is infected with malware) [33]. The analysis of piracy shows that it does not affect all adolescents. The factors that make a difference are gender, race, style of use of ICT, and type of school [34]. American researchers who have been carrying out complex studies into piracy among adolescents emphasise that the peer exchange of illegally obtained files is one of the major factors initiating or even preserving the analysed activities in this area [35]. The social processes that take place in the peer environment stimulate both positive and negative behaviours related to new media [36]. Therefore, exploring what adolescents think about piracy and learning within the media pedagogy paradigm of risk provides an opportunity to fill an important gap in our knowledge of the way piracy is interpreted by adolescents.

As mentioned before, piracy may be studied in many dimensions. In this paper, it is the main variable which will be categorised and described in detail, based on statements made by adolescents (the developmental stage before adulthood, between 11 and 18 years of age) [37]. Piracy is often seen to be a fuzzy term, one which is interpreted based on an existing knowledge of intellectual property law. Often, people with minimum awareness of the problem have different interpretations of the import of downloading and exchanging copyrighted files, and their interpretation is not always consistent with the governing law [38]. This text attempts to compare students' knowledge of piracy with the current legal solutions. The main regulation protecting copyright in Poland is the Act on Copyright and Related Rights (Ustawa o prawie autorskim i prawach pokrewnych), which provides for civil and criminal liability for infringement of economic copyrights. This provision clearly defines the penalty for perpetrators who, in order to achieve a financial benefit, violate Article 115, paragraph 3 of the Copyright and Related Rights Act. Any unauthorized entry into the sphere of property rights, for example by obtaining a financial benefit, is also considered a crime. Moreover, Article 117 of the Copyright and Related Rights Act clearly defines the responsibility for recording and reproducing for the purpose of distribution. Piracy is also reflected in the Copyright and Related Rights, under which property rights are protected. According art. 116 of the Act on Copyright and Related Rights Piracy is defined as "Whoever, without authorization or against its terms and conditions, disseminates other persons' work, artistic performance, phonogram, videogram or broadcast in the original

or derivative version shall be liable to a fine, restriction of liberty or imprisonment for up to 2 years." When analysing students' responses, it is important to be aware that piracy has also been defined by the Polish Penal Code, where in article 278, Section 2, it states that "The same punishment [deprivation of liberty for a term of between 3 months and 5 years] shall be imposed on anyone who without the permission of the authorised person acquires someone else's computer software, with the purpose of gaining material benefit." Analysing the phenomenon of piracy in Poland, it is also worth taking into account Act on Copyright and Related Rights, (consolidated text, Dziennik Ustaw 2019.1231). It is worth noting that these penalties mainly concern software piracy. When analysing computer piracy, it should also be borne in mind that, according to the case-law of the CJEU, the temporary or permanent reproduction of content available on the Internet on the basis of authorised use is only lawful if it comes from a legal source. However, in some cases, barely listening to or familiarising oneself with an audio-visual work is an offence (e.g., the P2P protocol). Studies of digital piracy are a complex issue, as respondents are reluctant or afraid to admit to committing certain acts and thus exposing themselves to the risk of bearing the legal consequences [39]. The concept of risky behaviour becomes one of the key terms in this paper. This results from the legal conditions so far presented. In many cases, reproducing or making available some digital files exposes young people or their legal guardians to the risk of criminal and financial liability. Thus, piracy behaviours carry serious consequences, which is why some forms of this activity can be incorporated into the overall classification of risky behaviour.

However, one needs to be aware that legal acts often run contrary to common definitions of piracy. The rapid development of the information society, including the emergence of new e-services, and poor awareness of copyright among the active users of cyberspace, force an approach to piracy from different perspectives. Given these micro-definitions of piracy, the phenomenon cannot be reduced to the provisions in the legal acts; it should be considered with a deeper understanding of the circumstances that co-exist with unauthorised downloading and sharing of content.

3. Materials and Methods

3.1. Objectives of the Study

The study was an attempt to show which factors determine the way that digital piracy is interpreted by adolescents. The data collected herein detail adolescents' knowledge about piracy. The goal is to present the way piracy is interpreted, that is, how this concept is understood by adolescents. The author employed a qualitative approach in order to understand the mechanisms affecting risk behaviours in the area of reproducing software and files from unauthorized sources. The scale of piracy in Poland, as well as countries that share close proximity or are culturally similar, forces us to search for answers not only to questions of horizontal (quantitative) determinants—the scale of the phenomenon—but also vertical (qualitative) factors as they help to discover the underlying conditions. This research project is oriented towards the vertical layer of the concept of piracy.

The general objective of research relating to the interpretation of piracy leads to specific objectives, such as

- cognition—to understand how adolescents interpret reality in terms of understanding the concept of digital piracy;
- theoretical—to enrich knowledge about the protection of intellectual property in the perspective of media pedagogy and sociology;
- practical—to organize perspectives related to piracy, allowing us to develop formal and non-formal education programmes.

An important context for research is to go beyond the standard perception of piracy as a phenomenon that merely involves crossing possible legal boundaries that result or may result in financial and criminal liability. Understanding risky behaviour in cyberspace requires entering the micro-world of the group under analysis. This is only possible through the use of qualitative knowledge-gathering techniques. Such an assumption allows us not

only to broaden knowledge on the borderline between media pedagogy, economics and law, but it is also useful from the point of view of minimising stereotypical perception of behaviours classified as risky.

3.2. Research Tool and Data Analysis Techniques

In order to obtain answers to the aforementioned questions, the tool How Adolescents Use the Internet was chosen. The survey consists of 46 questions, out of which 44 were closed and 2 were open-ended. The tool was a triangulation of the following research tools: the scale of the risk of Problematic Use of the Internet [27], and "the scale of risk behaviours on the Internet" developed by the Centre For the Prevention of Risky Virtual Communication," Faculty of Education of Palacký University in Olomouc [40]. The quantitative analysis has been discussed in detail in another paper focused exclusively on showing the distribution and coexistence of the variables [3]. The separation of the quantitative and qualitative part was based on methodological assumptions. The quantitative part showed the scale of the phenomenon and the relationship between the variables, while this quantitative part is a qualitative view of the phenomenon of piracy. The separation of both perspectives results from the assumption that combining the two perspectives is difficult to achieve due to the limitations of the collected material. Due to the nature of this text, our main focus is on the qualitative data presented as this set new qualitative perspectives for the infringement of intellectual property in the society. Due to the character of this paper (its volume, and the research problem stated), the answers to the open-ended question: *What do think about digital piracy?* were used for the data analysis. Through the qualitative part of the tool we were able to extend the previously-used methods of presenting piracy-related data by motivating the respondents to reflect more deeply on the idea of piracy. The qualitative methods (like the open-ended question in the diagnostic survey) created an opportunity to obtain new data and reach beyond the existing research framework, thus expanding the existing knowledge. Changes in the information society also force us to search for new variables with which to describe the phenomenon of the infringement of intellectual property rights. This is made possible by applying non-quantitative research methods.

The research procedure consisted of several stages. In the first part, the adolescents filled in an anonymous questionnaire, which included questions about the scale of the phenomenon of piracy and the co-occurring risky behaviour. This part was subjected to quantitative analyses which are not included in this text. The second part of the tool contained an open space (open question) in which young people were asked to write their own reflections on piracy. Given that quantitative research is by nature more objective (showing the scale of the phenomenon), while qualitative subjective (interpretation of the phenomenon) the two parts were separated from each other. Then the qualitative part was subjected to classical analysis of qualitative data (written statements of adolescents) through reading all answers by researchers and categorising them. Grouping—categorisation took place as a result of distinguishing responses that had common features (e.g., relating to the ethical layer, consequences and legal regulations, etc.). The categories were created on an ongoing basis by the authors of the study using the theoretical framework presented in the introduction, as well as emerging new phenomena of piracy. Saturation of the categories took place when new indicators for a particular category were no longer noticed. Nevertheless, all answers were categorised. A diagram of the test procedure is presented in Figure 1.

The procedure described in diagram 1 related to categorisation was carried out in mixed mode. Some of the categories resulted from the theoretical framework, i.e., the answers of adolescents, which could obviously be assigned to the categories: legal, economic, ethical. In turn, there was also a group of categories which were generated "from scratch" because of the unclassified answers of the adolescents. This was due to the fact that selected interpretations of piracy do not appear in the literature or that some indicators were presented in the available publications in a limited way in the context of the issue of piracy among adolescents. The strategy of consensus between the codes was conducted

using the dominant factors in the speech. If the dominant part of the subject's statement included one aspect, e.g., the legal aspects of piracy were unanimously classified in the legal category, etc. [41].
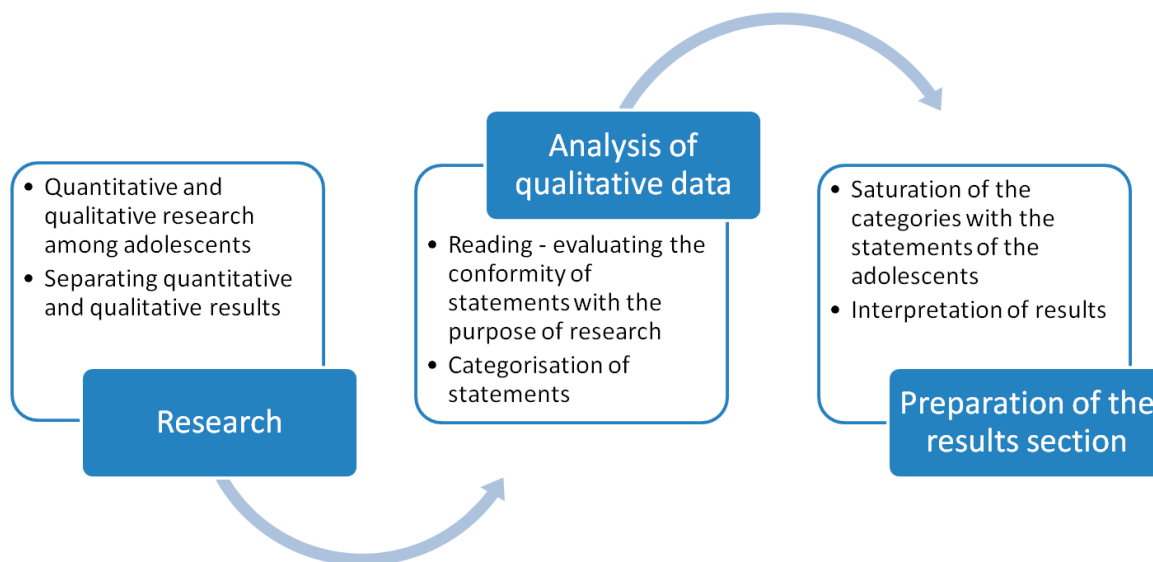

Figure 1. Scheme of the research procedure.

The possible meanings within the qualitative data were reduced and each answer was assigned a code (a nominal variable) that characterized the way digital piracy was considered [42,43]. Each of the quotes obtained was marked according to gender (F—Female, M—Male), type of school (L—lower secondary, S—secondary, T—secondary technical school, V—secondary vocational school), and the respondent's age. For each quotation, the variable is presented with the characteristics of the person who provided the answer, given in the following order: gender, type of school, age. Sociodemographic characteristics relating to gender and type of school were obtained from the quantitative part of the questionnaire. Each category contains answers—quotations containing data (gender, type of school) from the quantitative part of the tool. In this way, triangulation between the qualitative and quantitative parts of the research tool was made.

Quantitative (anonymous) methods support the diagnosis of the scale and conditions of the phenomenon. This article reaches beyond the dominant narratives that present the scale of piracy by establishing relationships between reproducing files from warez servers and P2P services, and independent variables such as gender, financial status, mental health predictors, and educational styles. The holistic analysis of digital piracy and its accompanying consequences, as well as its legal, economic and social conditions, also requires qualitative analyses that would reveal the original predictors [44]. The holistic approach to digital piracy requires reference to the constructs that define this type of risk behaviour. This is possible through the adoption of the perspective of the adolescents. The results presented below show the phenomenological approach to one of the many risk behaviours common among adolescents in the online media environment.

3.3. Research Sample and Area Covered

The study was carried out in Poland, in the Śląskie (Silesian), Małopolskie (Lesser Poland) and Podkarpackie voivodships. Due to the absence of major differences in the styles of ICT use and the level of digital competences in certain voivodships [45], the quantitative part of this analysis can be generalized and thus applied to other regions. The study was conducted among students of all types of lower secondary and secondary schools (general—Polish liceum, technical and vocational). There were 1320 questionnaires collected. Almost half (43.26%) of the respondents were female (N = 571) and 56.74% were male (N = 749).

It is estimated that more than 200 questionnaires did not meet the criteria that would have qualified them for further analysis (i.e., they contained missing or incorrectly-marked answers). These questionnaires were not subject to analysis. In addition, only 42% of the adolescents answered the open-ended question, while the others ignored this part. Most of the respondents were students of lower-secondary schools—62.2% (N = 821), while the rest were students from secondary schools—37.8% (N-499). The average age of the students was 15.53 years, the minimum age was 12 and the maximum 20 years, with a standard deviation of 1.75. The collected data allow us to ensure representativeness of responses for three Polish voivodships at the level of α = 0.99. Data on the level of generalization of the collected results were obtained from the Central Educational Information System.

The sampling was non-random due to a limited research budget. The sampling criterion was age (type of school). The survey was conducted by pedagogy students who had completed their training in the methodology of social research. The questionnaire was tested during the pilot study and evaluated by two external researchers, experts in media education (and research ethics). The data was collected using online questionnaires. Having reviewed the research tool, the school directors and teachers consented for the study to be conducted. The students who agreed to take part in the survey filled in the questionnaires in the schools' computer laboratories. The survey was carried out several times, using the same questionnaire. Filling in the form took several minutes on average. The form did not contain questions about confidential data. The answers did not allow us to identify the person involved in the research. The form was not made available to third parties. The data was processed only by a research team experienced in conducting pedagogical research. The data analysis was completed when there was data saturation, that is, when new answers confirmed the previous exemplifications of the variables. Calculations were performed on the data as part of the original research conducted in the Faculty of Pedagogy of the Pedagogical University of Cracow, Poland. The survey was completely anonymous. W The sample was composed of adolescents due to the specific characteristics of this group, such as that the percentage of individuals engaging in risky online behaviours is greater than the average. This group differs much from the other cohorts of digital media users, for example, in terms of the problematic use of the Internet or cyberbullying [46]. That is why they seem interesting for researchers into problems related to new media. The data on the ways adolescents use ICT, based on recent studies among representative samples, can be found in detail in the report EU KIDS Online [36]. The research is intentionally embedded in the risk paradigm of media pedagogy.

4. Results

4.1. Ethical

The ethical evaluation of digital piracy most often means considering the reproduction of files from unauthorised sources as stealing from the copyright and property rights holders. Unauthorized access to digital content is clearly classified as intellectual property theft. However, we need to point out that over two-thirds of Polish students claim that "pirating" a movie form the Internet is a less serious offence than stealing a physical DVD from the store. For adolescents, the association of piracy with theft is also connected with the economic perspective. The respondents pointed out that the unauthorized use of someone else's digital property is an example of fraud.

It is fraud and abuse of the author's content, who created it to earn money. But we don't care, we act unfairly and abuse the Internet (F, S, 17).

The ethical side of digital piracy is also seen by comparing the activity of people reproducing games legally and illegally.

Piracy is wrong because some people buy a game while others pirate it (M, L, 15).

The ethical relativism that occurs in the sample group also results from the nature of the given product. For example, if the files are available online on the day of release, then

acquiring them is considered as negative behaviour. Downloading the same files later can be classified as a "lesser evil" or a behaviour that does not have negative connotations.

> If it is a small program and it's commonly available, then it's nothing bad. I think piracy is when you download a movie that has just come out, and this is something bad (M, L, 13).

Additionally, the evaluation of digital piracy as negative is weakened by the social scale of the phenomenon of illegally downloading software. Despite their nature, behaviours otherwise classified as negative become acceptable because of their prevalence. An additional factor that supports such an evaluation is the frequency of downloading copyrighted files.

> It is wrong but almost everyone has downloaded something illegally at some point (M, L, 15).

> If you leech something once in a while it's not as dangerous as in the case of computer pirates. Downloading all the time is a very serious fraud (F, L, 16).

Adolescents often do not associate risk behaviours on the Internet with their equivalent in the real world. However, the qualitative study also revealed another group of students who analyzed online risk behaviours and emphasized that there is no difference between digital theft and shoplifting in the real world. Similar mechanisms govern the risk behaviours in the virtual and in the real world, but in the case of digital piracy these correlations between people who download files and have shoplifted in the real world are not clear.

> I think that people who do this don't know what they are doing and who they become. For example, if somebody steals from someone else on the Internet, then in the real world he would be a thief (F, L, 14).

With the development of the services now available in the information society, the ethical evaluation of digital piracy has also changed. This is a natural process resulting from the fact that in each area of human activity there are behaviours classified as ethical or non-ethical. The issue of ethics and the lack of ethics is very controversial, and is an element that gives rise to disputes in the popular and scientific discussion on digital piracy.

> This is the negative side of the Internet (F, S, 18).

The ethical evaluation of digital piracy requires one to view it from the perspective of the social standards of the time and the principles that enable individuals to tell right behaviour from wrong. The ethical layer of the analysis of piracy is important because piracy is seen as behaviour that goes beyond the standards of good and evil. Digital piracy can be understood as theft. Although theft takes place in cyberspace and is apparently unnoticeable, the boundaries between good and evil are being violated, i.e., the goods of those involved in the production of material protected by copyright and property law. The ethical layer is the most controversial issue because of the occurrence of so-called authorised use, i.e., the situation where selected files can be downloaded (music, films) without any legal infringement.

4.2. Economic

From an economic aspect, digital piracy is most often defined from one's own perspective. The individual justification of the risk behaviours in the area of intellectual property infringement is connected with the level of income (usually the parent's income) that allows, or prevents, the purchase of certain software, movies, or music files. For adolescents, the economic dimension of piracy is associated mainly with income and the price of digital files.

> In our country people earn little so they cannot afford to buy software, it is too expensive (M, L, 16).

> It's a very good option in the countries where financial conditions are worse. In our country, an average working person who buys 3 new games, spends 1/4 of their salary. In other countries it's about 10% (M, T, 19).

> Sometimes it is the only way, especially that in Poland most of the games and software is more expensive than in other EU countries (M, L, 15).

Adolescents very often excuse their piracy by referring to the price of copyrighted content. These adolescents know that the purchasing power one has in Poland is much lower due to the disproportions in salary compared to that found in Western European countries. According to the respondents, the geographical variation in prices is one of the reasons that adolescents resort to piracy.

For adolescents, digital piracy also results from their financial priorities and their own budget limitations. Limited financial resources and sophisticated needs in the area of entertainment (games, music, movies) lead to risk behaviours and copyright infringement.

> Theoretically, piracy is wrong but today movies, games, even music are simply too expensive for the average teenager. So most people my age simply have different financial priorities (M, S, 17).

The respondents also declared that if the prices of audio-visual content were lower, there would be less piracy. According to the respondents, high prices accelerate risk behaviours such as using warez services, P2P, and the practice of making files from unauthorized sources available to friends.

> We think that if the prices of games were set according to what people earn, and not e.g., 250 PLN, then certainly more people would buy games legally (M, S, 16).

Among the respondents there is also a group that sees piracy from the perspective of economic loss. This loss primarily affects the content creators. The creators of music, movies, and software are seen as those who suffer the greatest losses due to digital piracy. However, the respondents totally ignore other contributors to the distribution process, including people who are involved in the production and marketing processes. For this group of students, digital piracy equates to a lack of support for content creators.

> It is wrong because authors cannot benefit from their work because it is available for free on the Internet (M, L, 13).

> I think the world would not stop if one downloads something but in general, illegal downloading, for example, music is wrong because then we don't support the creators at all (M, S, 16).

> I think that on the one hand piracy is good because poorer people don't have enough money to buy a CD or a DVD, but on the other hand, it's a bit unfair that someone who worked hard to produce music or a movie, or a game, cannot earn from it because most people leech illegal software (M, L, 16).

> Even though everyone says it's wrong and we shouldn't do it, I'm sure most of them do it anyway. It really shouldn't be done because when we admire a game or some music downloaded illegally, we don't let the creators earn (M, L, 14).

Piracy is also seen as having insignificant economic consequences for the creators because of the unit price of certain products. Unaware of the scale of the phenomenon, the respondents do not understand the economic consequences of piracy. They see piracy as insignificant from an economic point of view because they also treat this type of distribution as a form of promotion for the creators and distributors of the digital content.

> I don't see anything wrong when it's a small amount. The authors earn a lot of money anyway, and prices like 100 or 200 PLN for a game that is sold on a mass scale is a joke (M, S, 16).

> There is a chance that a person who has pirated it would not buy it anyway, and this makes no difference to the seller (M, L, 14).

It is an advertisement for the creators (M, L, 15).

The respondents emphasize many times that free forms of file distribution would minimize the scale of digital piracy. Of course, not all files can be distributed via social media for free but today there are many solutions that provide legal access to audio-visual content through, for instance, watching or listening to advertisements in exchange for that access. These forms of distribution also provide an alternative that reduces the percentage of people who download music and movies from unauthorized sources. Free forms are becoming an alternative to pirate websites, also allowing users with lower digital competencies to access audiovisual material. Free platforms are also an attractive place to advertise and encourage the purchase of full versions of e.g., discs or digital files containing an entire music album.

I think that if some files with music or movies were free, digital piracy would visibly reduce (F, L, 16).

If there were more services like Spotify or VOD, the scale of piracy in Poland would be definitely smaller (F, S, 17).

The respondents point out that from an economic perspective, one cannot separate behaviour on the Internet from its equivalent in the real world. For this group, the economic conditions are similar in both environments. This type of answer also reveals that the respondents do not see any difference between the digital and the real world in terms of finances.

Piracy is dumb because when one goes to a concert or to a movie, he does not go for free but pays (M, L, 16).

The issue of potential profits and take-off is a very common category that emerges when analysing digital piracy. Any process, including violations of intellectual property protection, does not happen in a vacuum. Failure to pay for digital files has the effect of reducing income for the creative sector. At the same time, taking into account the fact that the creative sector is not only the creators of films, music and software, but also a number of entities supporting creators (advertising, distribution, technical support, outsourcing), means that an entirely new dimension of understanding of piracy is emerging. It is worthwhile analysing computer piracy together with the adolescents (e.g., as part of prevention activities carried out at school) to show the multidimensionality of economic issues which may slow down the development of creators as well as bring losses to the economy. The individual perspective (profits for adolescents due to lack of expenditure) should also be extended to include the dimension of losses in the macro scale.

4.3. Legal

The evaluation of digital piracy from a legal perspective is, in most cases, limited to the postulate that people who download digital content from unauthorized sources should be punished. Such a view, reduced solely to the penal aspect, results from the respondents' poor knowledge of the legal solutions that protect copyright in Poland. Furthermore, the relationship between piracy and punishment is particularly important in the process of developing digital competences. The latter include not only technical skills, such as the ability to use electronic media, but also an awareness of the legal consequences of risk behaviours.

I think this should be punished (M, L, 13).

You can go to prison for doing it (M, L, 13).

This is not right because it's illegal. We all have to respect copyrights, so it's a penal act (M, L, 13).

An analysis of the legal indicators of opinions about digital piracy reveals that the respondents misunderstand the consequences of downloading and using copyrighted files. Many respondents point out that, since the content is available in a public space, namely

the Internet, then downloading such content does not bring with it any legal consequences. Furthermore, their legal interpretation is dependent on the ways in which the files are used. For example, if the downloaded content is used for non-commercial purposes, such an activity is not subject to penalty. The interpretations presented below show that the respondents lack appropriate knowledge of the legal aspects of new technologies.

> This is not wrong because if it was wrong or forbidden, people would not share files on the Internet (M, L, 15).

> If we use it only for ourselves, it's not a crime. If you sell pirated games, movies, music, it's an offence (M, L, 16).

> I think that downloading single files is not such a big offence, it's worse if someone does it on a really large scale (F, S, 17).

This poor legal awareness is also connected with the prevalence of websites that provide easy access to complex repositories containing files (e.g., warez servers). Many adolescent users emphasized their belief that the simple possession of audio-visual files was not subject to penalty. This position results from the complexity of the Polish legal system that, in general, punishes individuals who distribute audio-visual files or download software without authorization from the copyright holder. In this area, the lack of legal awareness is also noticeable.

> The truth is, everyone experiences it daily. We don't know what we're doing e.g., when we download songs from chmikuj.pl, but is it legal? Well, yes. We can have the file for up to 24 h, but can we send it to our mobile? No, because this is possessing somebody's work without their permission. Most of the songs in our mobiles are from the Internet. Unfortunately, they are downloaded illegally. Games are another example. You want to play a game but can't afford to buy it. What do you do? You download it from the Internet. Unfortunately, this is illegal (F, T, 17).

> It depends on what type of digital piracy it is. I don't see downloading music and movies as a crime (F, L, 15).

> Piracy results from low penal awareness (F, L, 16).

There is also a group of respondents who emphasize that digital piracy should be punished appropriately. The suggested punishments are not realistic compared to the legal solutions currently in use in Poland. Additionally, the students point out that without legal remedies the phenomenon would be much more widespread than it is now.

> I think it should be punished with a fine equal to the price of the pirated game/software. Today, digital piracy is more and more common. In my opinion, it should be severely punished but there should be a website where everyone could download files, music, movies for a small charge (F, S, 17).

> Without punishment there would be no limits. Everyone would download everything, without limits (F, L, 14).

Poor legal awareness and different interpretations of the legal regulations lead to a range of practical suggestions to increase the digital competences of adolescents by teaching them about the legal solutions. Every Internet user—regardless of age—is subject to legal regulations, therefore increasing their legal awareness may be one element that would reduce the scale of piracy.

Legal issues are the category that causes most interpretation problems. Adolescents have different perceptions of aspects related to legal liability or the existence of potential penalties for pirate actions. Despite the fact that there is an official course in Poland (computer classes II educational stage) and informatics (III educational stage), in which young people should learn about the issues regulating the circulation of digital files protected by copyright, it has been noted from the analysis of statements that this group still requires educational support. Strengthening adolescents' knowledge will allow them to develop

their competence in issues such as permitted use, the differences between sharing and downloading, the implications of the techniques used to download and share files or the types of licences.

4.4. Praxeological

Digital piracy may also be analysed from a praxeological aspect, this being understood as covering activities that facilitate the use of resources produced by the information society. The praxeological perspective is determined by the nature of certain digital products, such as, first of all, the lack of the possibility to test software through, for instance, a trial version of a piece of software or a game. In such instances, adolescents justify piracy by reference to the characteristics of their hardware or game.

> Sometimes you see from many reviews and videos that the game is really poor. In a situation when someone knows he won't be playing it long but wants to play it for a short while (and there's no demo), it's better to download it instead of paying for it. But if the game is really good and well made, you should pay for it (M, L, 15).

> It's ok if we download it to try, just for our own needs. Also in a situation when the producer doesn't launch a trail version so one can decide if it's worth the price (M, S, 16).

According to the respondents, the aforementioned phenomenon results from a desire to test a game or piece of software when its producers do not provide such a possibility. Yet we need to be aware that testing the full version of a piece of software or a game (except through a trial version, demo, or freeware) constitutes a breach of the law regardless of the user's motivation.

> Today, most companies that produce software and games use the buy and test technique. There are no demo versions, especially for games, and the result is that if we like a title but it doesn't meet our expectations, we have wasted our money. Often a game or a piece of software is "pirated" in order to test it on our computer, for example, to see if it works ok etc. When it meets our expectations, it's often purchased by the user who pirated it (M, T, 18).

There is also a group that emphasizes that, from a practical point of view, this type of activity can be limited through mass file availability. According to the respondents, the product release date determines whether piracy is considered a serious offence or not. Audio-visual content or software not available in traditional stores should be available online free of charge or for a small fee. This type of wishful thinking can be found in the narratives of the respondents.

> Music should be available for a legal download (besides, it's on YouTube), and movies should be shared after a while. Computer games, especially older titles like Need For Speed Most Wanted 2005, Gothic 1-2 should also be available for a small charge. More recent titles should not be downloaded. It can all work better, it's just a matter of the good will of the creators and producers (M, L, 15).

The praxeological criterion is first of all connected with the technical conditions of the computer equipment involved and the specifications that come with certain pieces of software (mainly games). The respondents point out that the computer game market favours the unauthorized testing of software. This is a typically practical approach that involves prohibited activities before the final decision is made on whether to purchase the product or not.

Praxeology is, above all, the usefulness of the actions taken. Usability is related to needs. It is the needs relating primarily to the entertaining nature of the use of new media by adolescents that are associated with piracy. Utility is also very often associated with the technical dimension, e.g., the desire to check a given programme or game. Praxeology goes beyond the ethical layer. The praxeological view of piracy does not include other

dimensions, such as law and ethics. In praxeology, piracy is reduced to technical activities by adolescents.

4.5. Technical

When analysing the phenomenon of digital piracy from a technical point of view, the respondents notice that traditional media (radio, digital television) sometimes presents content that is not available via the Polish transmission band. This situation forces them to search for non-standard ways to gain access to these audio-visual materials. Reproducing files from P2P or warez services enables them to watch or listen to content that is unavailable in the local, regional, or national distribution channels.

> Piracy is useful when you want to watch something that is not available in your country (e.g., it is only shown in Australia) (F, S, 16).

The technical aspects of digital piracy also cover the possible threats resulting from illegally reproducing software. The students said that downloading files may lead to the dangerous situation of infecting their computers with malware. There is a high probability that by installing a piece of software from an unauthorized source one can also install spyware, botnets, viruses or other applications that affect the efficiency and integrity of the computer.

> Digital piracy is wrong because they can hack your computer (M, L, 14).

> It is dangerous because you can download viruses onto your computer (M, L, 14).

Another important element is the issue of the technical protective measures used to secure applications. Most recent software has a range of anti-piracy solutions that prevent the unauthorized use of the product. As pointed out by the respondents, this does not always fulfil its role. They provide two extremely contrary interpretations. One of the perspectives refers to how easy it is to circumvent the security measures, whereas the other mentions the problems that result from the illegal use of software.

> These are illegal dealings but they happen. In my opinion, a person that acts illegally will always be one step ahead of the security measures, of course, if they only want to be (M, S, 16).

> More and more companies now use anti-piracy software. Some is good but some is harmful for those who have bought the full version of a file. Some are easy to work around but they slow down e.g., a computer game. I think there should be a perfect system that would let us use the game efficiently and at the same time prevent illegal or free of charge downloading (M, L, 13).

The purchase of some software means adjusting the technical specifications of one's own hardware to fit the requirements of the application or game. However, the respondents point out that there is certain software that can be tested when the application is launched on a given computer. Investing in software without prior testing is considered to be a risk that may incur unnecessary costs for the potential user.

> I think piracy is a good solution so one can try certain software or games, and find out if their equipment meets the technical specifications (M, T, 18).

Technical specifications are also connected with the ability to download audio-visual files from authorized sources. These limitations, which include payment methods or even the basic availability of certain services in certain regions, lead to risk behaviours. Despite their awareness regarding digital piracy, there is a group of students who declare that technical conditions force them to acquire files from alternative sources. In addition, adolescents do not always have the technical ability to pay the fees due to age. Credit cards are issued after meeting the relevant age or financial criteria. This factor can cause frustration and the search for other alternative ways to access digital files.

> It's not good behaviour but, for example, when I want to buy a song from iTunes, I can only pay for it with a credit card. Unfortunately, my parents don't have a

credit card, so I download songs from free websites. I don't download software and movies, and I don't think it's good behaviour, but when it comes to music, in Poland you can only buy music on your iPhone by paying with a credit card. If I could pay for the songs some other way, I'd rather do that than downloading them illegally (F, L, 13).

This technical aspect of digital piracy sheds a new light on this type of risk behaviour. The analysis of the accompanying factors reveals the duality of the phenomenon. The indicators presented in this subchapter should not be treated as an excuse or justification of piracy, but only as "the other side of the coin". The technical side is rarely noticed in statements and analyses devoted to piracy. Usually this aspect is limited to statements on how to download and share files. Young people see the challenges of piracy in the technical dimension. Piracy can also be conditioned by the availability of resources. The statements made by adolescents help to better understand the phenomenon of piracy as a phenomenon with many dimensions.

4.6. Social

According to the respondents, piracy exists because of established negative patterns. In the situation where the phenomenon is common, the lack of clear social barriers results in the acceptance of piracy or the fact that it is not classified as negative behaviour. In addition, due to the availability of servers that provide unauthorized access to copyrighted content this phenomenon is considered to be socially acceptable. The respondents claim that this social acceptance facilitates the establishment of negative behaviour.

I think Internet piracy has a negative impact on the future because when someone downloads a file once, he would do it again and again (F, L, 14).

The lack of clear and enforceable barriers when it comes to reproducing files from unauthorized sources has created a sense of the insignificance of the social consequences of certain acts. Through this unusual type of social learning, adolescent Internet users develop a sense that illegal actions are accepted, and this leads to the superficial character of standards regarding the legal use of digital content.

Everyone downloads from these various websites like Torrnety.org, chomikuj etc., so why should it be wrong (M, L, 15).

This social acceptance also leads to the evaluation of digital piracy in the category of social justice. This approach perversely presents the principle of equality in the light of the expenses incurred in buying the original software and audio-visual materials. Thus the students apply the idea of justice and integrity not only to the user-creator relationship but also the relationship between users buying legally and users reproducing the file from unauthorized sources.

Everyone means everyone. It must be fair. If some pay then why would the others not pay for services (F, L, 14).

Despite an awareness of the legal consequences of digital piracy, the respondents notice that due to the scale of the phenomenon, these consequences should not be the same for everyone. This wishful thinking is not commensurate with the governing law and requires more education in this area.

It's illegal but I think that in extraordinary situations it can be excused, e.g., when you're caught. I don't believe there is a person who has never been a "computer pirate" (F, L, 15).

The opinions about digital piracy also contain indications of the related negative social consequences. These social effects are seen as factors that hinder the development of legal culture. This attitude is observable in a small group of respondents who emphasize that reduced revenue from legal sources may be a factor that hinders the development of the film, music, and IT industries.

I think digital piracy slows down the real development of culture (decreasing popularity of cinemas, theatres, music stores) (F, S, 16).

In comparison to the risk behaviours in other areas of life, digital piracy is not considered as having a negative social impact. The increasingly low standards applied to the evaluation of socially accepted behaviours may be one of the factors justifying activities that constitute theft and are subject to penalty.

I think the world has bigger problems that we should be worrying about (M, T, 17).

When evaluating digital piracy from a social perspective, the respondents do not usually see it as socially significant. They point to the scale of the phenomenon and to the fact that it is an established behaviour. The negative evaluation of piracy in its social aspect is very rare.

Although piracy is an IT issue, it is strongly linked to social conditions. The aspect of social acquiescence or lack of it is one of the most important factors determining piracy. Social permission authenticates and removes negative connotations for the phenomenon. The lack of negation in the social narrative is also becoming one of the forms of social consent. The social factor is visible to adolescents. Young people can adequately notice that since a given phenomenon is not neutralised, there is unofficial approval of the status of this state. The issue of the social dimension of piracy can also be a starting point for preventive measures against other risky behaviours mediated by new media (e.g., manipulation of the media, cyber-bullying, sexting).

4.7. Personal Benefits

Digital piracy is also evaluated by the respondents from the point of view of their personal benefits. Even though they know about the negative legal and economic consequences, they still choose to act in a certain way in order to preserve their own finances. Saving money this way is considered to form an aspect of rational budget management. For some adolescents, piracy is a method of gaining instant and free access to almost all games, CDs, and movies.

I think it is good because you don't have to spend money on unnecessary things. I can have it all for free (M, L, 14).

It helps people. If not, I would have already spent about 1000 złoty (approx. 250 EUR) on movies this year (M, L, 14).

If someone can't afford legal software, there's nothing wrong when he downloads something for himself (M, T, 17).

The economic aspect of the personal benefits of piracy should be complemented with the aspects of saving time and of laziness. The complex resources of P2P or warez servers provide adolescent Internet users with almost unlimited access to digital files. Downloading these files from unauthorized sources is not limited in any way. At any moment, Internet users may download a new CD or a movie. The comfort of use of these digital distribution channels is one of the factors that increases the popularity of some e-services. This principle also translates into risk behaviours.

In order to limit piracy we would have to have a store at home because nobody wants to move from their computer (F, S, 17).

I think there's nothing wrong with downloading music or movies for your own home use because you can have quick access to the files (F, T, 18).

I think that sometimes one should pirate to get some games in a quick and uncomplicated way (M, L, 14).

The personal benefits also include gaining access to files that are unavailable in the traditional media space. Adolescent Internet users are aware that some books, movies, broadcasts, and CDs are not accessible through traditional, legal distribution channels, and therefore the illegal distribution of files is the solution to their non-typical interests.

Many people said they don't know what digital piracy is. It's illegal but it allows us to watch movies/listen to music/read books which we would not have the chance to watch/listen to (F, L, 14).

The period of adolescence is a time when the emotional, volitional and ethical sphere is developing strongly. Habits, the ability to interpret reality and social skills are formed during this period of development. Adolescence is also a time of crossing the boundaries set by social groups (especially those established by parents). Piracy, which is considered by adolescents as personal gain, is, on the one hand, the reduction of risky behaviour to their own individual needs and interests without taking into account the wider social, economic or technical context. This category is also useful for the design of preventive measures that go beyond the category of personal gain and broaden the interpretative and ethical fields of young people.

5. Discussion

The respondents interpret digital piracy through the lenses of the main perspectives presented in Figure 2. The seven perspectives were determined through the categorisation of the respondents' answers. The categories were identified by assigning common indicators to the nominal variables. Thus, as shown in the methodology section, each statement has been assigned to a category that can be seen as a nominal variable.

Figure 2. Evaluation of piracy by adolescents—perspectives.

The quantitative analysis of the data gathered shows that digital piracy is most often considered by the respondents in the following ways: ethical (18.03%), legal (11.49%), and economic (8.04%). The two dominant perspectives of digital piracy, namely moral and legal, constitute the subjective norms that influence intentional actions [47–49]. Properly shaped, these attitudes count among the factors that prevent adolescent people from exercising risk behaviours. Ethics and the awareness of the legal consequences of digital piracy influence the intention to reduce one's pirating activity [50]. However, it needs to be emphasized that ethics is a much more complex concept which should not be reduced to the phenomenon of piracy but also applied to the principles that influence the overall lifestyle of a person [51,52]. In the context of preventive actions, developing reflexive thinking that affects moral conduct is one of the ways to change attitudes towards digital piracy [53].

However, there are groups of respondents that present a different view about the phenomenon analysed here. One group condemns this type of risk behaviour, while the other emphasizes that piracy is not ethically inappropriate due to the variation in the definitions of theft between the real and digital worlds [54]. Yet it needs to be pointed out

that high moral standards are not enough to prevent adolescents from committing this type of risk behaviour [55,56].

The respondents attach importance to the economic factors that determine their standard of living. These factors include spending on entertainment goods. In many narratives, adolescent Internet users notice that in their case, piracy results from insufficient financial resources. This is one of the arguments used to justify this risk behaviour and to suggest that adolescents who have a better financial situation are less likely to use files downloaded from the Internet. This is not a true correlation, as the ethical factor mentioned earlier is one of the intermediate variables for this type of risk behaviour [57].

The category of limited resources enabling the legal purchase of files is, however, one of the leading narratives in a certain group of countries. For example, the citizens of the post-Soviet block show much greater social acceptance of this type of risk behaviour [58]. This social acceptance, also present in the students' answers, depends not only on the legal solutions or economic situation but on the level of cultural development that affects people's attitude toward intellectual property [59]. The social acceptance recognised by the respondents is also connected with the level of knowledge their parents possess about the online risk behaviour of their children [60,61]. The responses also point to a correlation between piracy and the technical aspects of this phenomenon. Inculcating positive patterns of behaviour is not the only way to reduce the scale of piracy. Also, the policy of digital content producers regarding anti-piracy measures should not go unrecognised [62]. Another important factor that reduces the impact of digital piracy are legal regulations [63]. The respondents point out that the scale of digital piracy decreases with the application of restrictive measures. This intuitive opinion is reflected in the research results that show that the scale of piracy is smaller in countries with well-developed and effective legal solutions in intellectual property protection [64]. The cultural context of the country in which the analysis was conducted leads to the question about the religious aspect as a mediating factor in seeing piracy as negative behaviour [65–67]. Despite the high proportion of religious people in Poland [68], none of the 1320 answers provided by the adolescents in this research referred to the area of religious belief. For these adolescent Poles, and also those professing religious belief, the issue of digital piracy was not connected in any way with religious principles. However, it needs to be emphasized that some of the statements about ethics provided in the qualitative part of this paper are indirectly connected with the principles of the Catholic religion (for example, theft) that is dominant in Poland.

The results of the qualitative research carry theoretical and practical implications. The seven areas identified set new directions for studies rooted in the quantitative methods of measuring factors that coexist with piracy or are responsible for this phenomenon among adolescents [3]. Piracy is very often approached from a legal perspective, while the soft areas which contribute to or sustain the lack of protection of intellectual property are neglected. An example thereof may be the issue of social learning and the consolidation of risk behaviours or piracy treated as unintentional (testing software and games when there is no trial version or using files for school, e.g., to complete a homework assignment). The results revealed that piracy is not always intended as a way to profit by not paying the relevant fees. The soft aspects presented in the previous part distort the homogeneity of the perception of piracy among adolescents [69]. The perspectives presented may be a reference point for representatives of the creative sector who are responsible for minimising copyright infringement and creating new solutions to protect the interests of content creators. Based on these soft aspects of piracy, we can design awareness-raising projects to strengthen digital literacy (knowledge about the legal, economic and ethical consequences of violating copyright).

Knowledge plays a crucial role in the research. Very often, adolescents are not able to identify whether a behaviour constitutes piracy or fair use. This uncertainty in interpreting piracy and the errors resulting from the inconsistency of responses to the legal reality are very valuable pieces of information. Such data should be treated as a useful guideline for the prevention of activities and for further research.

This study fits the redefinition of digital piracy. A one-sided approach to the infringement of copyright that looks only from the context of legal and financial liability reduces the scope of the area to be analysed. The opinions of these adolescents present a more in-depth image of piracy, revealing that this is a phenomenon that often takes place unintentionally (among students who have no real knowledge of copyright and take certain actions without the intention of breaking any laws). However, one should be aware that issues relating to intentionality are also regulated by the law (Article 9(2) of the Penal Code). A lack of knowledge in this respect is not a sufficient justification to protect against liability. The research results presented provide an opportunity to return to the discussion about preventive mechanisms, the ethics of online activities, and the development of networked services (like access to movies, music, TV series, e-books etc) in a way that takes the financial standing of certain groups or geographical regions into account [70–72]. This research is unique due to the research strategy applied, one which enables a deeper understanding of piracy and the way users see this phenomenon [73]. At the same time, we need to emphasise that piracy among adolescents cannot be subjected to unambiguous evaluation without considering the specific characteristics of this developmental period.

The results presented also have practical implications such as with regard to preventive activities and initiatives related to learning and teaching. First of all, media socialisation in the family environment determines compliance with social norms, including intellectual property law [74]. It is the parents who are responsible for knowing what is appropriate and legal when it comes to how they and their children use online resources. Allowing piracy or not responding appropriately to acts of piracy strengthens the risk behaviour in this area. In addition, as indicated by the respondents, peer education consolidates piracy, but it can also be used to reduce e-threats. We need to add that it is reprehensible for educators to encourage illegal downloads in order to meet the requirements set in the education process. This phenomenon should be considered when developing educational frameworks (e.g., in schools with an IT profile), by providing students with legal access to the content they need. The abovementioned seven areas may inspire a wider and in-depth discussion about the etiology of the risk behaviours mediated by new media. The first effects of regular discussion are already visible in the Polish formal education curricula. At present, the curriculum of IT education (in the second and third stage of education) includes, apart from the development of competencies related to digital literacy, aspects related to respect for intellectual property. The change visible in this area puts computer literacy on an equal footing with the knowledge of intellectual property law.

When analysing piracy we need to remember that the seven identified characteristics of piracy are geographically universal. Thus, due to the nature of the processes related to the evaluation of piracy and similar mechanisms determining the analyses, we need to emphasise that the ethical, economic, legal, praxeological, technical, social, and personal benefits perspectives are layers which will be present worldwide in all groups engaged in the illegal download of online content [75]. Piracy has become a global phenomenon not only in terms of its qualitative interpretation. Slow changes take place not only among adolescents but also in older cohorts. The introduction of VOD services has resulted in transformations regarding the use of legal and illegal online resources. As a global phenomenon, piracy is also investigated in the following aspects: economic, technical, social, and educational (including preventive) [76].

The analysis of the qualitative studies with similar data conducted in other countries reveals many similarities in terms of adolescents' perception of piracy. For example, in Greece the respondents pointed to the material, legal, moral, and practical aspects. In this case study, however, the adolescent Internet users did not refer to their professional development and did not indicate that they download files from unauthorized sources in order to improve their technical competencies [77]. Further quantitative and qualitative analyses of the adolescent group should not be limited to music [78], movies [79], and software [80], but should also include the use of digital books and magazines [81,82] as well as watching pay-per-view or premium television broadcasts from unauthorized

sources [83]. Today, digital piracy takes on various forms, and therefore designing further questions for qualitative or quantitative studies requires the consideration of all areas of e-services that are subject to intellectual property law.

The issue of digital piracy is important not only because of the ethical, legal, economic, and other aspects identified above, but first of all due to the factors that accompany this phenomenon. In some cases, digital piracy leads to dysfunctions in the offline world. These dysfunctions include the loss of self-control [84] or the loss of control over the amount of time spent online [76] and increased susceptibility to taking risks in the real world [85]. In many risk behaviours mediated by new media, there is a correlation between the virtual and the real world [86]. Separating these behaviours and their interpretation by adolescents may be a methodological trap due to the fact that these activities are intertwined in the spaces of new media and the real world [87].

There are many attempts to reduce piracy by, for instance, introducing school curricula, mainly for computer classes (lower grades), IT classes (adolescents), intellectual property law, and information technology (university students). Despite including this content in teaching programs that aim to reduce this type of risk behaviour, the statistics on piracy in European countries similar to Poland have remained at the same level for years [88–90]. Digital piracy is mentioned in the media only when there are changes in the legal regulations [91,92], or in reports about cyber-crimes connected with the infringement of intellectual property rights. Preventive education regarding piracy is not a priority topic in Polish educational policy. The data collected brings a new perspective on the process of preventing risky behaviour online. The collected results may prove useful in designing effective formal and non-formal education activities.

The analysis presented in this paper shows how diverse the perception of digital piracy is. This proves that there is a need for the further development of formal and informal educational activities that will improve digital competences not only in the area of the efficient use of new technologies [93–96], but also to prevent risk behaviours such as reproducing copyrighted content from unauthorized sources. It must be noted that despite being classified as piracy, many activities are considered as "fair use". In this way, even though they do not pay and do not violate the law, young people have access to files classified by some as piracy.

The results of the research gathered expand knowledge about piracy. Above all, they are unique because of the Polish research sample. Research of this type with a large sample has not yet been carried out in Poland and other Visegrad countries. The results have several important implications for:

- The theory of research on risky behaviour among adolescents on the Internet;
- Strengthening formal and non-formal education programmes against piracy;
- Expanding the ways of interpreting piracy according to the adopted perspective.

To date, research relating to computer piracy has been carried out in Central and Eastern Europe only in the current of quantitative analyses, which mainly revealed the scale of intellectual property law infringements. The subject of piracy has been the least frequently raised among young people in terms of digital security. This research fills this gap and can be useful not only for a phenomenological understanding of piracy (basic research), but also for preventive measures. Designing the prevention of risky behaviours starts with determining the scale of a given phenomenon and understanding the mechanisms involved. This research allows us to look at the issue of piracy not only through the perspective of legal norms, but also through the daily activities of adolescents in cyberspace. This approach goes beyond the conventional perception of piracy and allows the design of more appropriate and thus more effective prevention programmes, reducing exposure to legal and financial responsibility and at the same time increasing the knowledge of adolescents about the law of new media. The data obtained are also valuable for commercial sector representatives engaged in activities aimed at reducing the scale of piracy. Piracy is not just a dual phenomenon of respecting or crossing the boundaries of copyright law. In the case of adolescents, piracy is associated with several

indirect phenomena. The available data allow us to broaden the understanding of piracy, which can be particularly valuable for companies in the creative sector.

6. Limitations and New Directions of Research

Some limitations may affect the data collection process, namely, filling in online questionnaires. Adolescents may be afraid of the legal consequences of breaking the law, and this results in answers of dubious authenticity. Adolescents may also interpret piracy differently because of the variations in their understanding of the penalty aspect of the acts of reproducing and making available copyrighted files. Knowledge of copyright is hard to interpret for both adolescents and adults. Therefore, the data collected provide a foundation on which to develop preventive curricula based on the proposed seven categories. Also, the examples of predictors for the variables allow the creation of new tools which would consider more than just the influence of the economic and legal factors on the level of piracy in society.

The data presented should also be treated very carefully in terms of the interpretation of the impact of piracy on the lives of young people. For them, piracy may be a factor that supports their intellectual development and that accompanies the improvement of competencies. Thus, piracy has different aspects which should be studied beyond the scope of the legal consequences.

The open question used in the research tool allows for a variety of answers. The open field allows us to obtain data bringing a new perspective in the interpretation of digital piracy among adolescents. At the same time, it is noted that some of the collected data can go beyond the research problem posed. It should therefore be clearly stressed that the methodology used in this study is characterised by duality in terms of efficiency and methodological suitability.

The results presented are also subject to the limitation of generalisation. Despite the fact that the analysis covered 1320 questionnaires, the sampling was not fully random. This means that there is the possibility of additional indicators appearing in certain categories of answers which were not gathered during the study. Also, despite the optimisation of the research procedure to ensure anonymity, the survey took place in schools. These factors could have disrupted the research process. The adolescents might have different concerns preventing them from providing their full opinion about piracy in the questionnaire.

The new directions of research into piracy should also include free and subscribed forms of distribution of digital files. Free services operating in the VOD mode are very popular channels for distributing movies among adolescents. This type of e-service also provides young people with easy access to a wide range of musical works. Therefore, the minimisation of piracy as an longitudinal—spread over time phenomenon should refer to changes in the information society, consisting in the growing popularity of free (e.g., financed by advertisers) services providing access to films and music. The current generation of adolescents has completely different possibilities in this field from, for example, their peers from decades ago. Taking this into account is becoming a necessity for a full understanding of the phenomenon of piracy.

7. Conclusions

This study is a unique study on how adolescents interpret digital piracy. The study was conducted in Poland, a country where this type of risky behaviour in cyberspace has not been completely eliminated. The results showed seven interesting perspectives that show the complexity of the issue of digital piracy, as activities that should be interpreted beyond legal aspects. Piracy is a phenomenon that changes dynamically with the development of the information society. It is a process that can be completely interpreted by different groups separated by age, profession, income, place of residence and further socio-demographic characteristics. The research approach used has made it possible to find seven categories of piracy, which dominate the description of the phenomenon among adolescents. Many of the statements are extreme, exclusive, giving the possibility of overin-

terpretation. However, these are valuable data both for the pedagogical practice, enriching the theory relating to the risk paradigm of media pedagogy and preventive actions. The data collected may prove useful not only to educators or sociologists who analyse behaviour in cyberspace. The results shown in the text allow us to see the different dimensions of piracy for representatives of the creative sector. Those responsible for safeguarding the interests of creators and strengthening copyright protection can understand that piracy is not a one-dimensional phenomenon, but has many perspectives. This multi-faceted perception of piracy provides an opportunity to design effective solutions to minimise piracy and strengthen copyright awareness among adolescents, but also in the eyes of parents and teachers.

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