EKONOMISTA | **ARTYKUŁY**

2026, 3, 489–507
DOI: 10.52335/ekon/225277

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Neutralisation Techniques in the Realm of Digital Piracy

Techniki neutralizacji w obszarze piractwa cyfrowego

Abstract

The article situates itself within the Law & Economics tradition, in the area of intellectual property law, which determines the allocation of digital goods. The study examines how neutralisation techniques are used to explain the reasons for using pirated access to information goods. The article aims to answer the following research questions: (Q1) Which neutralisation techniques are most frequently used by individuals accessing digital information through pirate sources? (Q2) Is the frequency distribution of preferred neutralisation techniques among individuals using pirate sources the same as among those who do not use them? The research material, collected in 2022, is derived from a CAWI survey (sample of 1500 respondents). Two methods were utilised: prioritising the reasons for using pirated sources and comparing the response structures in two groups, users and non-users, referred to as *pirates and non-pirates*. The results indicate that the most commonly used neutralisation techniques are denial of responsibility and appeal to higher loyalties, with significant differences observed in the responses of non-users of pirated sources.

Keywords: Unauthorised Copying, Digital Piracy, Copyright, Techniques of Neutralisation.

JEL: D02, D91, K42

Streszczenie

Artykuł wpisuje się w nurt prawa i ekonomii, w obszarze prawa własności intelektualnej, które warunkuje alokację dóbr cyfrowych. Przedmiotem badań jest zastosowanie technik neutralizacji w procesie wyjaśniania przyczyn korzystania z pirackich źródeł dostępu do dóbr informacyjnych. Celem artykułu jest odpowiedź na pytania badawcze: (Q1) Które z technik neutralizacji najczęściej są stosowane przez osoby korzystające z pirackich źródeł dostępu do cyfrowych dóbr informacyjnych? (Q2) Czy struktura częstotliwości stosowania technik neutralizacji u osób korzystających z pirackich źródeł jest taka sama jak u osób z nich niekorzystających? Materiał badawczy, zebrany w 2022 roku, pochodził z ankiety przeprowadzonej metodą CAWI (próba 1500 respondentów). Zastosowano dwie metody: hierarchizację przyczyn korzystania z pirackich źródeł oraz porównanie struktury odpowiedzi w dwóch grupach (korzystających i niekorzystających). Wyniki wskazują, że najczęściej stosowane techniki neutralizacji to kwestionowanie odpowiedzialności oraz odwołanie się do wyższej racji, z istotnymi różnicami w odpowiedziach osób niekorzystających z pirackich źródeł.

Słowa kluczowe: prawa autorskie, nieautoryzowane kopiowanie, piractwo cyfrowe, techniki neutralizacji.

JEL: D02, D91, K42

1. Introduction

The practice of "piracy" in the creative economy is described in various ways, leading to terminological inconsistency and heterogeneity. It is most commonly referred to as *digital piracy*, the commercial violation of legally sanctioned intellectual property in the form of digital content (Johns, 2009; por. Organisation for Economic Co-operation and Development, 2009). Additionally, such practices encompass file-sharing, primarily via the Internet (LaRose et al., 2005), and specific unauthorised copying of various information goods, including digital ones (Czetwertyński, 2022). Regardless of the conceptual category used, digital piracy pertains to the copying of works protected by copyright, manifested as digital information goods (Czetwertyński, 2019). Consequently, it is intrinsically linked to creative works, both artistic and commercial, posing a significant challenge for creative industries such as film, music, and software. Digital piracy is therefore associated with copying, including sharing—which is technically also a form of copying—of the aforementioned digital information goods. Audiovisual content and software are two types of digital information goods (Tam et al., 2019).

Regarding digital piracy, copying must not only be unauthorised by the author or copyright holder but must also infringe copyright law. This is a crucial distinction between digital piracy and other forms of copying, which may occur without the author's consent but are permissible under copyright law (Czetwertyński, 2017), for example according to the fair use principle (Barta & Markiewicz, 2017). This implies, among other things, that unauthorised copying occurring among family members or close friends[1] is legally acceptable, while unauthorised copying—typically via the Internet—from individuals without a close relationship should be deemed digital piracy (Barta & Markiewicz, 2017). Hence, the source from which copying occurs determines whether the activity is digital piracy (cf. Peitz & Waelbroeck, 2006).

Consequently, digital piracy within the contemporary realities of the creative economy relates to the sources from which Internet users obtain copyrighted works. From an economic perspective, these are digital information goods, meaning marketable items that have moved outside formal market structures in human activity, thereby violating copyright. Digital piracy is thus conducted through pirate sources, which are unauthorised and illegal, as opposed to non-pirated sources, which must be legal but can be either authorised or unauthorised.

The non-market circulation of copyrighted works, which creates the phenomenon of digital piracy, is linked to social perceptions of its harmfulness, particularly among young people (Karaganis & Renkema, 2013; Tomczyk, 2021). Several factors contribute to this situation. These include legal aspects, such as (1) the ambiguous legal definition of digital piracy (Barta & Markiewicz, 2017) and (2) the need to balance the interests of authors with the public interest. A pertinent example is the opinion of law professors cautioning against using copyright law to hinder the advancement of innovative technologies (an "Amicus Curiae" opinion presented by eighteen law professors in the case against the Napster portal (Litman et al., 2000)). Economic

[1] Often referred to as private copying (Johnson, 1985).

factors also relate to the non-scarcity of information goods, which indicates their non-rivalrous nature, signifying that their marginal costs are exceedingly low (near zero) and thus considered negligible (Bakos & Brynjolfsson, 1999, 2000; Litman, 2017; Shapiro & Varian, 1999)[2].

Property rights constitute a legal category that defines the object of exchange. A transaction is an economic mechanism that realises the allocation of resources. The combination of the two situates the analysis within the Law & Economics tradition, a school of thought originating from the work of Coase (1937; 1960). The proper establishment of property rights is a prerequisite for allocative efficiency. Intellectual property rights perform the same function in the digital economy as property rights over physical things in the traditional economy: they establish exclusivity and transferability, without which a good does not enter into market exchange. The shape of the bundle of rights attached to a product of the human mind embodied in digital goods thus determines their transferability in market transactions and, consequently, the efficiency of resource allocation in society.

The factors above influencing the social perception of digital piracy have prompted researchers to utilise a theoretical framework grounded in legal theory that takes into account psychosociological dependencies. This pertains to studies in which the theoretical framework was established based on the mechanisms of neutralisation techniques (Sykes & Matza, 1957). The foundation of this theoretical framework is the belief that a person committing a crime experiences shame and guilt, and subsequently "neutralises" the act by employing one of five techniques: (1) denial of responsibility, (2) denial of injury, (3) denial of the victim, (4) condemnation of the condemners, and (5) appeal to higher loyalties (Sykes & Matza, 1957).

The aforementioned neutralisation techniques effectively elucidate the reasons behind the proliferation of digital piracy, assuming the "neutralisation" of the criminal act of utilising pirated resources occurs. If such "neutralisation" occurs, the following questions arise: (Q1) Which neutralisation techniques are most frequently used by individuals accessing digital information through pirate sources? (Q2) Is the frequency distribution of preferred neutralisation techniques among individuals using pirate sources the same as among those who do not use them? Addressing these questions will help to gain an understanding of the primary objective of this article, which is to ascertain the significance of individual neutralisation techniques for those utilising pirated access sources, as well as the uniqueness of their motivations in comparison to non-pirates.

The article is structured as follows: the next paragraph presents a theoretical framework for neutralisation techniques, followed by a discussion of the research methodology. Consequently, the research results are provided, along with a general overview of the adopted methods. There is also a discussion, and finally, conclusions.

[2] Social factors should not be overlooked either, including statements made by media figures, such as the CEO of Time Warner (owner of HBO), who compared the record-breaking piracy of the series Game of Thrones to winning an Emmy Award (Tassi, 2014), and slogans from pop culture that trivialise the use of unauthorised sources of works. A good example is a scene from Mel Brooks' film Spaceballs, where the characters use pirated tapes shown before the film's premiere to see what happens next in the movie they are starring in (Brooks, 1987); or a scene from The LEGO Batman Movie where Batman states, Superman doesn't have any friends and binge-watches TV shows from torrents after work (McKay, 2017).

2. Application of neutralisation techniques in the study of digital piracy – theoretical framework

Previous research on the nature of digital piracy has demonstrated that neutralisation techniques can be effectively applied to explain it. Among others, Hinduja (2003, 2007) has made significant contributions in this field based on the theoretical framework developed by Sykes and Matza. The author further advanced his research in collaboration with Ingram (Ingram & Hinduja, 2008), Wolfe, and Marcum (Higgins et al., 2008). Brown (2013, 2014) indicates a widespread belief among individuals using pirated sources that their activity constitutes a victimless crime. Although Brown references the concept of cognitive errors, he effectively highlights one of the neutralisation techniques. Similarly, in exploratory research, Czetwertyński (2022) found that the justifications offered by respondents using pirated sources are consistent with two neutralisation techniques: denial of injury and denial of the victim.

Indirectly, these techniques can also be observed in Tomczyk's (2021) research among the young people he studied. Young respondents minimised the harmfulness of downloading "minor" software, reflecting their unconscious application of neutralisation techniques. In this context, it is essential to note that this neutralisation relates to perceived justice. In formulating the theory of justice, Adams (1965) considered the relationship between the evaluation of individual employee rewards and the motivational mechanism. Hill (2007) highlights that when applied to digital piracy, this theory reveals the dissonance experienced by individuals who utilise pirated sources. This dissonance arises from a conflict between the perceived costs of digital information goods and their values of justice. This straightforward mechanism illustrates an internal opposition to *rip-offs*, which Gupta, Gould, and Pol (2004) discussed with regard to illegally acquiring software.

Although the above works indirectly employ neutralisation techniques in studying digital piracy, a research gap must be addressed. As Zuber, Greenberg, and Williams (2016) point out, neutralisation techniques are frequently utilised to elucidate categories of crimes such as rape, white-collar crimes, involvement in organised crime groups, and street crimes. However, this does not imply that they cannot be applied to practices associated with digital piracy.

Viewing digital piracy as a crime can be a foundation for developing a theoretical framework based on the insights of Sykes and Matza (1957). They argued that potential criminals seek ways to neutralise feelings of guilt and strive to "liberate" themselves from moral compulsion through neutralisation techniques. The essence of this technique is that the individual (in this case, the Internet user) learns these techniques somewhat unconsciously through interactions with others. By employing them, the individual internally convinces themselves that the decision and the corresponding criminal act are acceptable, regardless of existing social norms. The authors identified five neutralisation techniques, examined in the subsequent paragraphs, along with comments on digital piracy practices.

The first neutralisation technique is the denial of responsibility. It involves a belief in the absence of personal accountability for the crime. The individual

perceives themselves as helplessly predisposed to criminal acts due to uncontrolled and arbitrary actions. Consequently, the individual regards themselves as a victim rather than a perpetrator. In the case of digital piracy, the individual might justify this as a necessity owing to their lack of access to a particular work for various reasons, such as the high cost of the digital material.

The second neutralisation technique is the denial of injury. This concerns the individual's belief that the criminal act is permissible because there is no victim. This technique relativises the crime, drawing on the classic distinction between inherently evil acts and those that are illegal yet not necessarily immoral. Thus, the individual interprets whether they have harmed someone or not. In the context of digital piracy, this involves the belief that using a pirated source has not caused anyone any significant harm.

The third neutralisation technique is the denial of the victim. It is grounded in the belief that the individual acknowledges that they have committed a criminal act resulting in harm to the victim. Still, this harm is not considered wrong in light of the circumstances. This is a way of shifting responsibility onto the victim, who, in the individual's view, becomes the perpetrator, justifying the harm as a form of punishment. In instances of digital piracy, this technique may entail questioning the extent of the harm inflicted on the author, artist, or copyright holder. The individual engaging in the criminal act may criticise the copyright holder, accusing them of injustices towards ordinary members of society.

The fourth neutralisation technique is condemning the condemners. This is a classic example of "turning the tables," diverting attention from the criminal act committed by the individual to the actions and motives of those who have been wronged. This technique is rooted in cynicism and hypocrisy and aims to relativise the crime committed. With digital piracy, this technique may involve retaliation against corporations such as record labels and producers for limiting access to works or for "exploiting" authors and artists.

The fifth and final neutralisation technique is the appeal to higher loyalties. In this scenario, the individual engaging in the criminal act somewhat legitimises their behaviour by appealing to the needs of a larger group ("sacrifice"), such as friends, a gang, or a nation. Nevertheless, this does not indicate an individual rejecting the normative value system. The prevailing circumstances compel them to prioritise the group over their beliefs, even at the potential cost of breaking the law. Digital piracy may involve appealing to the prevalence of this phenomenon and the culture of copying that exists in certain social context groups.

3. Research methodology

For the research presented in this article, data were collected using a computer-assisted web interview (CAWI) between March and April 2022, involving a sample of 1,500 respondents. Since the survey was conducted online, the sample is formally representative of Polish Internet users. Table 1 displays the precise distribution of the sample based on basic demographic data.

Table 1.
Demographic Data of the Research Sample

Feature	Count (N)	Percentage (%)
Gender		
Female	780	52.0-
Male	720	48.0
Age		
18 - 24 years	170	11.3(3)
25 - 34 years	326	21.7(3)
35 - 44 years	392	26.1(3)
45 - 54 years	254	16.9(3)
55 - 64 years	215	14.3(3)
65 years and older	143	9.5(3)
Education		
Primary and lower secondary	26	1.7
Vocational	159	10.6
Secondary	694	46.3
Higher	621	41.4
Size of place of residence		
Village	294	19.6
Town up to 20,000 inhabitants	157	10.5
Town from 20,000 to 100,000 inhabitants	357	23.8
Town from 100,000 to 200,000 inhabitants	203	13.5
Town from 200,000 to 500,000 inhabitants	221	14.7
City over 500,000 inhabitants	268	17.9
Net income («take-home pay») per person in the household per month		
Up to 500 PLN	20	1.3
From 500 PLN to 1,000 PLN	85	5.7
From 1,001 PLN to 2,000 PLN	408	27.2
From 2,001 PLN to 3,000 PLN	509	33.9
Over 3,000 PLN	396	26.4
Refusal	82	5.5

Source: own elaboration.

In the survey questionnaire, respondents were divided into two groups based on their propensity to use pirated sources for accessing digital information goods, namely users and non-users, which, for simplicity, can be referred to as *pirates* and *non-pirates*. According to the definition adopted in the introduction, pirated sources are understood as both unauthorised and illegal. This means that these sources of access are violation of copyright by at least one party in the copying process—either the user of the source or the provider of the source. This is significant because, under Polish law, an individual obtaining information goods from

pirated sources does not necessarily have to violate copyright. Conversely, an individual providing information goods to a wide audience typically violates copyright.

To divide between these unauthorised and illegal sources, respondents were asked about the frequency of access to pirated sources of the following information goods: (1) movies and series, (2) television programs including sports events, (3) music, (4) electronic books, including audiobooks, (5) video games, and (6) utility software. Individuals who had used pirated sources at any point were asked to evaluate the *features* that prompted their usage and to assess the reasons behind this decision. The assessment could be made on a five-point scale reflecting the importance of the examined variable: none, small, moderate, large, and full. The substantial data obtained from the questions were recoded into numerical data (from 1 to 5), according to the following key: none – 1, small – 2, moderate – 3, large – 4, and full – 5. Respondents who declared that they had never used pirated sources were asked to answer analogous questions, using a hypothetical narrative. Thus, respondents were solicited for their opinion on which *features* of pirated sources best suited them and to what extent a given *reason* could prompt someone to use these sources. An equivalent scale was employed in both sets of questions, and the results obtained were recoded similarly. Table 2 presents the range of features and reasons proposed to respondents for evaluation.

Table 2.
Range of Features and Reasons for Using Pirated Sources of Access

Question about Features	Question about Reasons
Pirates: To what extent did the following features prompt you to use unauthorised (pirated) sources? Non-pirates: In your opinion, which of the following features best fit unauthorised (pirated) sources?	Pirates: To what extent did the following factors influence your decision to use unauthorised (pirated) sources to obtain works (including software and video games)? Non-pirates: In your opinion, to what extent do the following factors explain why individuals use unauthorised (pirated) sources to obtain works (including software and video games)?
1. Richness of offer – unauthorised sources have a wide and diverse offer. 2. Speed of new releases – unauthorised sources provide very quick access to new releases. 3. Convenience – unauthorised sources are easy to use. 4. Comprehensiveness – through one unauthorised portal, you can access a wide variety of products (e.g., the same portal has movies and software). 5. Cost savings – unauthorised sources are free or very cheap. 6. Ease of access – unauthorised sources are easily accessible and quick to use.	1. Accident – accidental use of pirated sources. 2. Lack of intent – the use of pirated sources was unintended. 3. Low harm – the use of a pirated source did not cause noticeable harm to anyone. 4. Lack of victim – the use of a pirated source did not harm specific individuals – e.g., authors or artists. 5. Retaliation – the use of pirated sources was a form of revenge against wealthy corporations (e.g., record labels or software producers) that restrict access to works or exploit authors and creators. 6. Prevalence – the use of pirated sources is common in society. 7. Criticism – copyright holders of works, including software and video games, are unfair to ordinary members of society. 8. Necessity – the use of pirated sources is a necessity because otherwise, it would be impossible to access a given work, including software (for any reason, e.g., financial or lack of availability on the market).

Source: own elaboration.

Based on this prepared research material, two methods were employed to address the two research questions posed at the outset, ensuring clarity of the argument: Q1: Which neutralisation techniques are most frequently used by individuals accessing digital information through pirate sources? Q2: Is the frequency distribution of preferred neutralisation techniques among individuals using pirate sources the same as among those who do not use them?

The first method (the *hierarchy* method) establishes the hierarchy of *features* and *reasons* based on a normalised coefficient, which is the quotient of the arithmetic mean of the recoded values of a given variable and the maximum value of the scale $C = \frac{\bar{X}}{M}$, where the arithmetic mean of the values $\bar{X} \in [1, 5]$, and the maximum value of the scale $M = 5$. This results in values ranging from 0.2 to 1 plotted on a two-dimensional graph. Both axes of the graph represent the values of the above-described coefficient.

The second method aims to ascertain whether significant differences exist in the distribution of the variables under examination—namely, *features* and *reasons*—between pirates and non-pirates. The U Mann–Whitney test with continuity correction was selected to achieve this. This test is appropriate due to the non-normal distribution of the examined variables and the differing sample sizes. It necessitated the formulation of two sets of hypotheses.

With respect to the variable regarding the features of pirated sources, the following hypotheses were formulated:

1. (H_{0f}) The distribution of the importance ratings of a given *feature* in both groups of respondents is identical, indicating no differences in the level of importance attributed to this feature in both groups.
2. (H_{1f}) The distribution of the importance ratings of a given *feature* differs between the groups of respondents, indicating a different level of importance attributed to this feature in both groups.

At the adopted level of statistical significance, α equal to 0.05, H_{0f} is rejected when p is lower than this value. Consequently, there is no basis for rejecting H_{0f} when p is greater than the adopted level of statistical significance. Substantively, this implies that if p is less than 0.05, respondents attribute different importance to a given *feature* depending on which group they belong to.

Regarding the variable that defines the *reasons* for using pirated sources, a similar set of hypotheses was formulated:

1. (H_{0r}) The distribution of the importance ratings of the *reasons* for using pirated sources in both groups of respondents is identical, indicating no differences in the level of importance attributed to this reason in both groups.
2) (H_{1r}) The distribution of the importance ratings of the *reasons* for using pirated sources differs between the groups of respondents, indicating a different level of importance attributed to this reason in both groups.

At the same level of statistical significance as before ($\alpha = 0.05$), there is no basis for rejecting H_{0r} when p is greater than 0.05. However, when p is less than 0.05, H_{0r} is rejected, which in practice means that respondents assign different levels of importance to a given reason depending on which group they belong to.

The methods above were applied simultaneously, although assigning them sequentially to individual research questions might appear sufficient. The hierarchy method and the *reasons* to which "pirates" attribute specific weights may seem adequate for addressing the first question. In contrast, the second method—the significance test for differences—might suffice for the second question. However, it becomes evident that assessing the hierarchy of *reasons* is inadequate for determining which neutralisation techniques are most frequently employed by individuals who use pirated sources to access digital information goods. This is due to the minimal differences in the values of the ratings, indicating that respondents struggled to avoid the error of overemphasising importance when classifying the *reasons*. Consequently, an analysis based solely on the hierarchy of *reasons* and limited to the *pirates* group reveals that all techniques are widely employed. Therefore, to identify the neutralisation techniques that are most frequently used, it is essential to compare the *reasons* for using pirated sources with their *features* and test the significance of their differences across the two studied groups: pirates and non-pirates.

Comparing *features* and *reasons* reveals the underlying factors while examining the variation in the importance of individual variables between groups, demonstrating how even slight differences, combined with the order of choice, may hold greater significance in selecting neutralisation techniques. The group of non-pirates thus functions as a filter, sharpening the actual perspectives of the pirates group. The presence or absence of variation indicates which variables possess or lack the significance that might be anticipated from analysing only the pirates group. This approach to the selected methods enables us to obtain definitive answers to the research questions posed.

4. Research results

The research results should be presented along with data regarding the frequency with which pirated sources are used. Aggregated data indicates that 56.7% of individuals have used pirated sources at some time, while 43.3% have never used them. The results align well with the trends delineated in the Global Online Piracy Study, which is based on the largest study on digital piracy to date, involving nearly 35,000 respondents from thirteen countries (Poort et al., 2018, p. 13). According to this report, in Poland, at the end of 2014, the percentage of individuals using pirated sources in the previous year was 69%, which decreased to 52% by the end of 2017. Thus, the percentage of 56.7% in 2022 seems credible and accurately reflects the overall level of pirated source usage in Poland. However, this percentage was calculated over an unlimited time horizon. The percentage of individuals using pirated sources that methodologically corresponds to the one presented in the Global Online Piracy Study, limited to a one-year perspective, for those using pirated sources no later than one year from the study conducted in 2022, is 35.7%. This aligns with the downward trend observed in the Global Online Piracy Study . The most popular sources are those for films and series, as well as music, which are the most sought-after information goods of the post-industrial society era. More detailed data, including information from the previous year of the study, are presented in table 3.

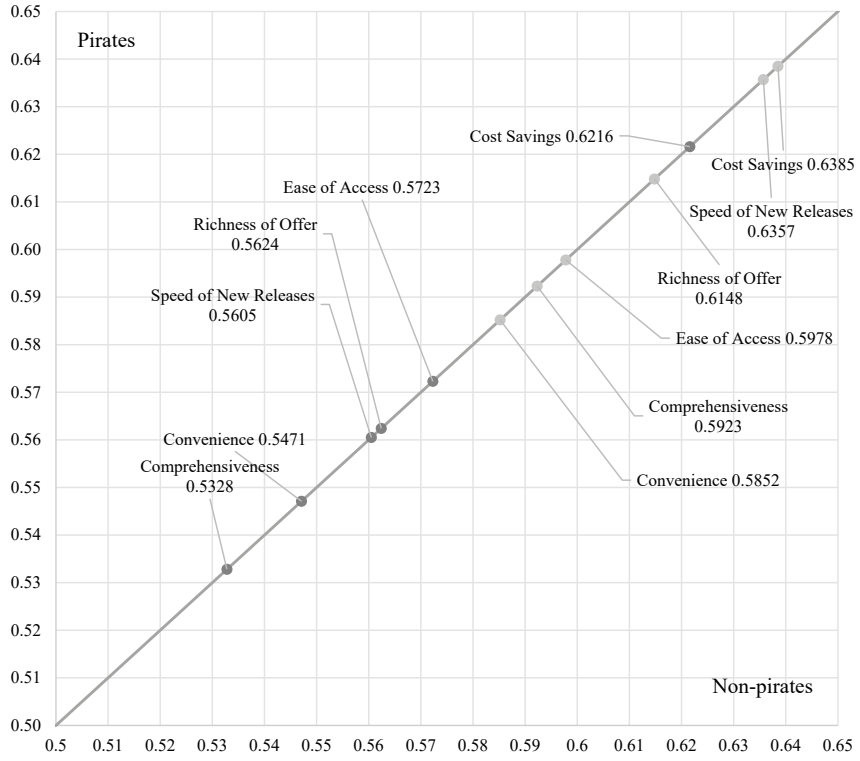
Table 3.
Frequency of Use of Pirated Sources by Type of Digital Information Good

I have used pirated sources to access:	Movies and Series		TV Programs including Sports Events		Music		E-books including Audiobooks		Video Games		Utility Software	
Response	N	Total (%)	N	Total (%)	N	Total (%)	N	Total (%)	N	Total (%)	N	Total (%)
Less than a week ago	75	5.0	42	2.8	62	4.1	27	1.8	26	1.7	17	1.1
Between 1 week and 1 month ago	72	4.8	45	3.0	48	3.2	53	3.5	40	2.7	40	2.7
From 1 to 3 months ago	88	5.9	71	4.7	84	5.6	68	4.5	62	4.1	58	3.9
From 3 to 6 months ago	88	5.9	70	4.7	84	5.6	71	4.7	71	4.7	73	4.9
From 6 to 12 months ago	78	5.2	60	4.0	95	6.3	74	4.9	61	4.1	53	3.5
More than a year ago	300	20.0	179	11.9	287	19.1	144	9.6	172	11.5	214	14.3
Never	799	53.3	1033	68.9	840	56.0	1063	70.9	1068	71.2	1045	69.7
Users in the last year	401	26.8	288	19.2	373	24.8	293	19.4	260	17.3	241	16.1
Users without time perspective	701	46.7	467	31.1	660	44.0	437	29.1	432	28.8	455	30.3

Source: own elaboration.

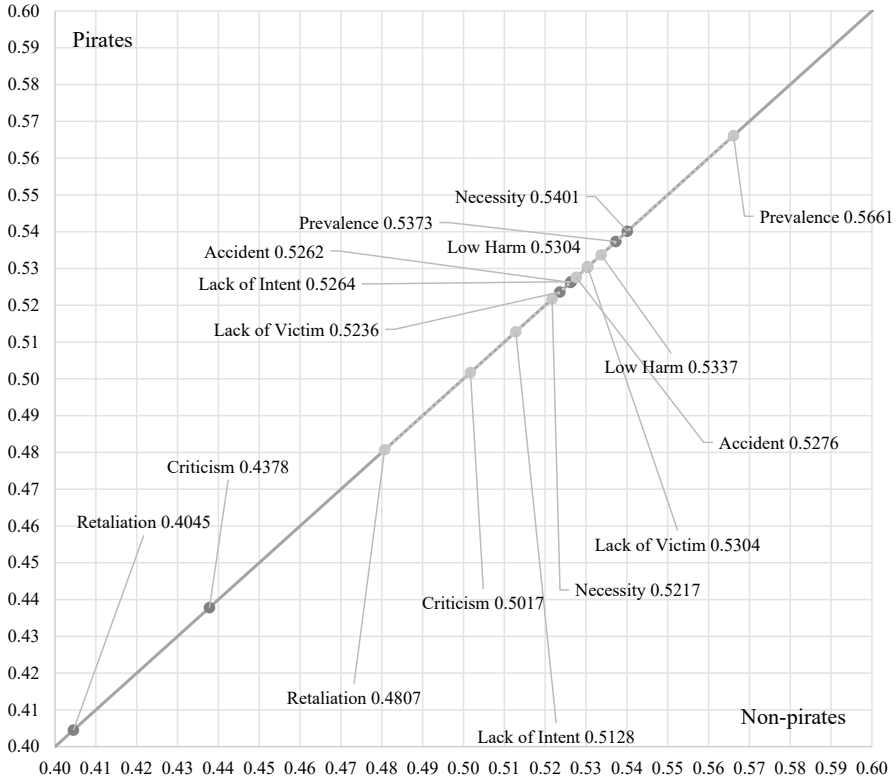
The results of the hierarchy of the importance of *features* in pirated sources and the *reasons* for using them are best presented by comparing the *pirates* and *non-pirates* groups . Consequently, two comparable charts of *features* and *reasons* can be constructed. Figure 1 illustrates, on the left, the hierarchy of the importance of *features* in pirated sources for pirates, and on the right, for non-pirates. Figure 2 similarly presents the hierarchy of the importance of *reasons* for using pirated sources.

Figure 1.
Importance of Features of Pirated Sources



Source: own elaboration.

Figure 2.
Importance of Reasons for Using Pirated Sources



Source: own elaboration.

The results of the U Mann–Whitney test with continuity correction for the *features* of pirated sources are shown in table 4. According to these results, significant differences in the importance of features relate to *the richness of the offer*, *the speed of new releases*, *convenience*, and *comprehensiveness*. For these features, p is less than the assumed α (0.05), so the null hypothesis H_{0f} can be rejected, and the alternative hypothesis H_{1f} can be accepted, indicating that the distribution of importance ratings for a given feature differs between the groups of respondents, signifying a varying level of importance attached to this *feature* by both groups. Conversely, there are no significant differences in the importance of features such as *cost savings* and *ease of access*. For these features, p is greater than α, so there is no basis for rejecting H_{0f}.

Table 4.
U Mann–Whitney Test for Features of Pirated Sources

Feature	Sum of Ranks (Pirates)	Sum of Ranks (Non-Pirates)	U	Z	p	Z corrected	p	N Pirates	N Non-Pirates
Cost savings	631957.5	493792.5	269431.5	-0.80820	0.418974	-0.83444	0.404036	851	649
Ease of access	624115.0	501635.0	261589.0	-1.75176	0.079816	-1.82494	0.068011	851	649
Richness of offer	605169.5	520580.5	242643.5	-4.03115	0.000056	-4.22085	0.000024	851	649
Speed of new releases	593411.0	532339.0	230885.0	-5.44586	0.000000	-5.61793	0.000000	851	649
Convenience	614992.0	510758.0	252466.0	-2.84938	0.004381	-2.96577	0.003020	851	649
Comprehensiveness	599446.0	526304.0	236920.0	-4.71977	0.000002	-4.92082	0.000001	851	649

Note: U Mann–Whitney Test (with continuity correction); Significant results with $p < 0.05000$
Source: own elaboration.

In examining the *reasons* for using pirated sources, the U Mann–Whitney test revealed differences in the importance ratings between the groups of pirates and non-pirates across three variables (*reasons* for use): *prevalence*, *criticism*, and *retaliation*. For these reasons, p was less than the assumed level of statistical significance of 0.05, so it was justified to reject the null hypothesis H_{0r} and accept the alternative hypothesis H_{1r}, indicating that the distribution of the importance ratings for the *reasons* for using pirated sources differs between the respondent groups, suggesting a varied level of importance attributed to these reasons in both groups. The aggregate results of the test are presented in table 5.

Table 5.
U Mann–Whitney Test for Reasons for Using Pirated Sources

Feature	Sum of Ranks (Pirates)	Sum of Ranks (Non-Pirates)	U	Z	p	Z corrected	p	N Pirates	N Non-Pirates
Necessity	476494.5	649255.5	265569.5	-1.27285	0.203071	-1.31662	0.187968	851	649
Prevalence	505481.5	620268.5	257742.5	2.21454	0.026792	2.28506	0.022310	851	649
Low harm	491195.0	634555.0	272029.0	0.49569	0.620113	0.51433	0.607022	851	649
Lack of intent	480318.5	645431.5	269393.5	-0.81278	0.416347	-0.84036	0.400710	851	649
Accident	488764.0	636986.0	274460.0	0.20321	0.838972	0.21162	0.832403	851	649
Lack of victim	494374.5	631375.5	268849.5	0.87823	0.379822	0.90716	0.364321	851	649
Criticism	533818.0	591932.0	229406.0	5.62380	0.000000	5.85023	0.000000	851	649
Retaliation	541132.0	584618.0	222092.0	6.50377	0.000000	6.81422	0.000000	851	649

Note: U Mann–Whitney Test (with continuity correction); Significant results with $p < 0.05000$
Source: own elaboration.

5. Discussion

The discussion begins with an interpretation of the hierarchy of *reasons* for using pirated sources. An analysis of this hierarchy suggests that motivations are strongly associated with *necessity*, *prevalence*, *low harm*, *accident*, *lack of intent*, and *lack of victims*. The concentration of responses complicates the identification of a dominant reason; however, *criticism* and *retaliation* are downplayed by those utilising pirated sources. If we accept this interpretation, all neutralisation techniques align with the primary motivations, particularly denial of responsibility, denial of injury, and denial of the victim – with the sequence of their application being insignificant.

Including the assessment of the importance of the *features* of pirated sources and applying the results of the U Mann–Whitney test, more detailed conclusions can be drawn. The significance of the variation results indicates that when assessing the features of pirated sources, it is not so much the variation in assessments between pirates and non-pirates that matters, but rather the similarities. This pertains to *cost savings*, obviously monetary[3], and *ease of access*, that is, the simplicity of finding and using pirated sources. For these two features, both pirates and non-pirates hold similar opinions. This implies that digital piracy is related to the fact that pirated sources are typically free or cheaper than authorised sources. Likewise, the issue of ease of access is perceived similarly across both groups; therefore, both those who use and those who do not use pirated sources recognise that accessing portals providing pirated information goods is easy. However, for non-users of pirated sources, this is not regarded as the second most important feature (see figure 2).

Returning to the hierarchy of *reasons*, the highest-rated reason among those using pirated sources is *necessity*, which should be compared with the consistent features noted for the entire sample: *cost savings* and *ease of access*. This leads to the conclusion that denial of responsibility is the predominant neutralisation technique employed in digital piracy practices. The utilisation of the denial of responsibility technique implies that the user feels compelled to use pirated sources for various reasons, particularly due to *cost savings* and *ease of access*. The economic significance of these features is crucial here. *Cost savings* reflect an economic consideration related to the expense of accessing authorised sources—in this context, the interpretation is clear-cut. Furthermore, *ease of access* can also be viewed as a form of savings, which may encompass the time saved in searching for authorised information goods or in establishing agreements with providers of these goods, such as subscription contracts or seemingly trivial registrations. This represents an indirect interpretation, but it is entirely justified from an economic perspective. Consequently, denial of responsibility technique is employed due to compelling external circumstances linked to the necessity of obtaining access to specific information goods and the lack of resources to do so. This resource deficit encapsulates the aforementioned

[3] This usually involves free access to portals that provide information goods in violation of copyright or significantly lower fees for access to them. This is not a direct fee for access, but is usually hidden in the form of a fee for data transfer from content-providing portals.

economic interpretation, which may pertain to both material resources (budgetary constraints) and immaterial resources, such as insufficient time or the ability to access authorised sources. In addition to the denial of responsibility technique, respondents using pirated sources also resort to the appeal to higher loyalties technique. This relates to the external factors mentioned earlier, which may involve various pressures on the individual, leading to the need for specific information goods. Such pressures can stem from social groups, family, or colleagues and might pertain to any type of information good: educational materials, a film significant to a particular subculture, or utility software essential for effective job performance. It should be noted that *higher loyalty* is largely a subjective concept. Whether it pertains to saving a human life or integrating with a fan subculture, it can serve as an equally compelling motivator for action for the individual.

The second most significant *reason* cited by respondents for using pirated sources is *prevalence*. This *prevalence* also involves denial of responsibility and appeal to higher loyalties, but the interpretation here differs slightly: the primary focus is on social pressure related to digital piracy (copying culture). In this context, the individual must conform to the majority of society—implicitly *everyone,* as *everyone* to some extent, utilises pirated sources. This pressure manifests as a denial of responsibility, i.e., a lack of choice, and its social character is evident in the higher loyalty legitimised by society. This interpretation highlights the power of social coercion, which, in this instance, is deemed more significant than formal legal rules. Consequently, this leads to another neutralisation technique, namely, the condemnation of the condemners. Here, prevalence reinforces the belief among users of pirated sources that copyright law is a construct, and the only binding source of behavioural norms are social prohibitions and commands—thus reinforcing the copying culture. Hence, the legal system, which is ascribed anthropogenic features, is fundamentally unjust, as evidenced by the overt social opposition manifested against it.

Although *prevalence* is the second most important reason cited by respondents using pirated sources, when supplemented with the significance test of differences in the studied groups of pirates and non-pirates, it demonstrates variation. It is favoured by non-pirates. This suggests that those who actually *pirate* perceive other reasons as more important than the rather common *prevalence*, thereby challenging the *everyone does it* explanation. It is reasonable to conclude that *prevalence*, as indicated by users of pirated sources, is primarily a general assertion and does not constitute the core of the neutralisation process of digital piracy practices.

Another *reason* why the U Mann–Whitney test showed no variation is linked to the lack of impact of the aforementioned digital piracy practices. The *low harm* reason corresponds to the denial of injury technique, while the *lack of a victim* is associated with the denial of the victim technique. In both instances, this relates to the absence of a real effect of the actions of individuals using pirated sources. Those who actually *pirate* find validation for their belief within society, as evidenced by the lack of significant variation revealed by the U Mann–Whitney test. Thus, alongside *cost savings* and *ease of access*, the absence of real harm reinforces the economic rationality of the pirate's decision. The absence of costs thus turns cost savings into a direct benefit – avoiding payment for authorised sources. In this

interpretation, the aspect of *cost savings* prevails, and *ease of access* can also be indirectly interpreted as its form.

The penultimate group of *reasons* for which no significant differences were observed between pirates and non-pirates relates to a kind of ignorance surrounding the practice of digital piracy. This encompasses two reasons: *accident* and *lack of intent*. Both reasons are linked to a different interpretation of the *ease of access* feature than previously suggested. Here, *ease* should be understood not merely as saving time, but as the lack of clear barriers between authorised and pirated sources. An individual who utilises the latter essentially neutralises this fact with the denial of injury technique—"apparently no one is striving to eliminate pirated sources since they are so easily accessible." The fact that no one is doing this suggests that their existence does not trouble anyone very much.

The results regarding two previously unaddressed *reasons—criticism* and *retaliation*—are not only extremely important but also quite surprising. Non-pirates prioritise these two reasons alongside other significant ones, while pirates tend to downplay them (they are situated at the edge of the chart displayed in figure 2). For pirates, the U Mann–Whitney test revealed a significant variation between both groups. In the perception of non-pirates, reasons such as *criticism* of copyright holders and *retaliation* against affluent corporations that hold rights to information goods are deemed more significant, while pirates do not attribute as much weight to these reasons. Both of these reasons are linked to the technique of condemning the condemners, which manifests in accusations against copyright holders of injustice or in retaliating against corporations. It appears that all forms of "ennobling" one's actions and seeking out something akin to justice, albeit perversely, hold little significance for users of pirated sources.

In the preceding analysis, a necessary condition for making a correct judgement was the assumption that the entire population—the group of pirates and non-pirates—should concur on the distribution of the examined variables to render them significant for pirates. Through its distinct perspective, the non-pirate group helped identify the most compelling reasons for users of pirated sources. Furthermore, the study noted that this differing perspective among non-pirates is also cognitively intriguing. Non-pirates base their evaluations of the *reasons* for pirating on a narrative of necessity, perceived triviality of the action, and a certain degree of ignorance, leading them again to diminish the significance of digital piracy. While this insight is cognitively valuable, more importantly, it highlights that they assess the remaining reasons differently than the pirate group. This suggests that the non-pirate group lacks sufficient detailed experience with pirated sources. Although they can accurately evaluate the *features* of these sources, they struggle to comprehend the actual motivations behind the behaviours of those who engage in piracy.

Non-pirates attribute broader, non-economic motives to pirates, whereas in reality, economic factors dominate. A closer analysis suggests that this explanation is accurate, as pirated sources primarily rely on copying content from authorised sources. In the past, this dependency was typical for information goods, such as software or music. However, with audiovisual content, particularly large-format

material, portals providing access to pirated sources frequently featured items that were still in theatres or had yet to premiere. A well-known example is the film *X-Men Origins: Wolverine* from 2009, whose post-production version was leaked to unauthorised circulation a month before its release. Another notable case is the most pirated series of all time, *Game of Thrones*, which aired in Australia a week later than in the United States due to contractual reasons. Consequently, Australians extensively resorted to pirated sources, unwilling to wait an additional week for the premiere in their country. This issue was addressed after a few seasons, when HBO management introduced simultaneous premieres in all countries.

This part of the research indicates that the conclusions regarding the *reasons* for *criticism* and *retaliation* are particularly rich in cognitive value. Non-pirates perceive these as significant reasons, often accompanied by the technique of condemning the condemners. This is presumably linked to the attribution of a romanticised image of the pirate—as a rebel against established rules—to individuals who use pirated sources by those who do not use them.

4. Summary

It has been stated that digital piracy involves using pirated sources (unauthorised and illegal), and from an economic standpoint, it relates to the non-scarcity of information goods. For this study, it is assumed that the neutralisation techniques described by Sykes and Matza are heuristically valuable in explaining the reasons behind digital piracy. This assumption is grounded in prior research, including Hinduja's studies, which highlight the efficacy of these techniques, and Brown's findings, which indicate that individuals utilising pirated sources perceive their actions as a victimless crime. Brown's interpretation represents a practical form of neutralisation that arises when there is a dissonance between actual (hidden) motivation and declared (revealed) motivations.

The authors' research facilitated an exploration of the hierarchy of neutralisation techniques employed by pirates by examining the significance of the *features* and *reasons* for utilising pirated sources. While it is generally agreed that neutralisation techniques effectively elucidate the reasons for engaging in digital piracy, conclusions regarding the primary technique necessitate a reassessment of Brown's observations, which are widely accepted as probable.

Regarding the first research question (Q1), the dominant neutralisation techniques among pirates are denial of responsibility and appeal to higher loyalties, followed by denial of injury and denial of the victim; condemnation of the condemners is marginal, as the other techniques sufficiently assuage guilt. These techniques are tied, respectively, to perceived external pressures, lack of alternatives, and the downplaying of harm and victims.

The division into pirate and non-spirate groups allowed the second research question (Q2) to be addressed. The answer is negative: the frequency distribution of preferred techniques differs between groups. In particular, non-pirates overestimate the level of condemnation of the condemners—linked to criticism

and retaliation—whereas pirates attribute little importance to it. This discrepancy opens avenues for further research on the typical profile of an individual who uses pirated sources to access digital information goods.

The research conducted by the authors has certain limitations. Primarily, it focused on a specific geographical area within one country (Poland) and exclusively on respondents' declarations (both actual and hypothetical). Moreover, all data were collected in 2022, so the findings reflect a specific point in time. Given the rapid evolution of digital piracy channels, some conclusions may lose timeliness and should be interpreted with caution. Additionally, the declarative nature of the data introduces the risk of social desirability bias and memory errors, meaning the declared reasons may not perfectly mirror actual behaviour. Thus, the study could be further enriched by expanding the research area to a regional grouping level (e.g., the European Union) or countries with similar legal systems and legislative solutions regarding the copying of information goods, including digital piracy. Additionally, it would be valuable to examine the actual behaviours of Internet users rather than solely declarative ones, which may be inherently subject to cognitive biases.

Funding

This research was conducted as part of the Digital Piracy Identification and Measurement Project, fully funded by a grant from the National Science Centre in Poland (2021/05/X/HS4/00362).

Data availability

The data presented in this study are available on request from the corresponding author.

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