



Theft of video content on the internet

Analysis of the impact of online piracy of
audiovisual content, including television
content, on Poland's economy

REPORT
Warsaw, July 2023

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Preface

This report is an attempt to capture and measure video content piracy in Poland, in terms of scale, specifics and causes. Theft of content and, more broadly intellectual property on the internet, is a complex issue, which requires a multi-layered approach and multi-dimensional assessment.

Piracy is, among others, largely a business challenge, contributing to already significant investment risks in the media and entertainment sector. These significant risks include technological, legal and social impact of pirate consumption of content. This report is an attempt to cover all these key areas and for that purpose it draws on variety of sources, from economic analyses through secondary literature analysis to in-depth interviews with experts in the field. Building up on similar research provided in 2017, Deloitte was able to partially compare the findings for 2023 with those made six years ago and to comment on changes and dynamics.

7.3 million of people in Poland visit piracy sites. No legitimate VOD platform in Poland comes even close to this scale. The number of users is large enough to influence investment decisions made by media companies and how they plan their operations. It's worth noting, however, that the pirate userbase has shrunk by 900 thousand since the previous report published six years ago, a decrease by 11%, from 8.2 million. While consumption of content from legal sources has increased

by 7.7 million of users, an increase by 67%, from 11.4 million to 19.1 million. It indicates that, to some extent, the market has responded to expectations of video content consumers and tailored their offers to users' needs. Audiovisual industry has also undertaken several tangible actions to combat piracy and reduce its scale by, for instance, blocking financial flows to piracy sites or educating law enforcement. Impact of these actions has manifested in reducing of advertisement spending with piracy websites. Similarly, all renowned payment intermediaries have stopped serving sites that monetise stolen content. Finally, in the last few years several record-high court rulings were observed, related to awarding compensation damages to rightsholders amounting to tens of millions of zlotys. Nevertheless, it has to be taken into account that piracy market has been adapting to these changing circumstances – such as developing technologies for online live streaming, and promoting illegal IPTV services, as well as exploiting social media platforms for distribution of stolen content. Moreover, in the place of blocked payment methods, new channels emerge, such as cryptocurrency, and additionally, piracy services tend to utilise intermediary services located in the jurisdictions with (in practice) no intellectual property protection. The report also outlines perception of piracy by the internet users. Many of them are aware of dangers of using illegal sources of content and negative consequences of piracy on legitimate creators and broadcasters. However, in many cases these are not good enough reasons to stop using piracy sites. Only some of users of piracy websites were aware that they are not legal or rationalise such behaviour.

This shows that actions aimed at influencing consumer's behaviour are not always effective, and therefore blocking illegal distribution of audiovisual content becomes of paramount importance.

A lot has been improved in the last six years. The achieved progress has largely depleted what was possible to achieve in the state of currently available legal and organisational frameworks. Yet despite the great efforts to reduce the number of users of piracy sites, the losses incurred to the legitimate audiovisual industry have grown at an accelerated pace. People who tend to consume large amounts of audiovisual content are clearly more likely to resort to use piracy sites. As a result, annual losses of legitimate business due to illegal distribution of video content have been estimated in this report at up to three billion zlotys, while the overall value of illegal consumption may exceed seven billion zlotys per annum. According to research of other territories and to experts' opinions, there is a need for more impactful and sustainable solution, that in tandem to currently adopted good practices, self-regulation, and efforts of those affected will be created on the regulatory and administrative level.

Key figures

The scale of consumption of pirated content in Poland (annually)

about **PLN 7.36 billion**



Losses of the audiovisual content industry due to Internet piracy

up to **PLN 3 billion**



Number of users of piracy sites (2023)

about **7.3 million**



State budget's losses (annually)

PLN 1.86 billion

PFI's losses - about **PLN 100 million**



Average monthly expenditures on pirated content:

PLN 30

per user of live streaming content

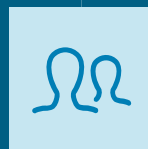
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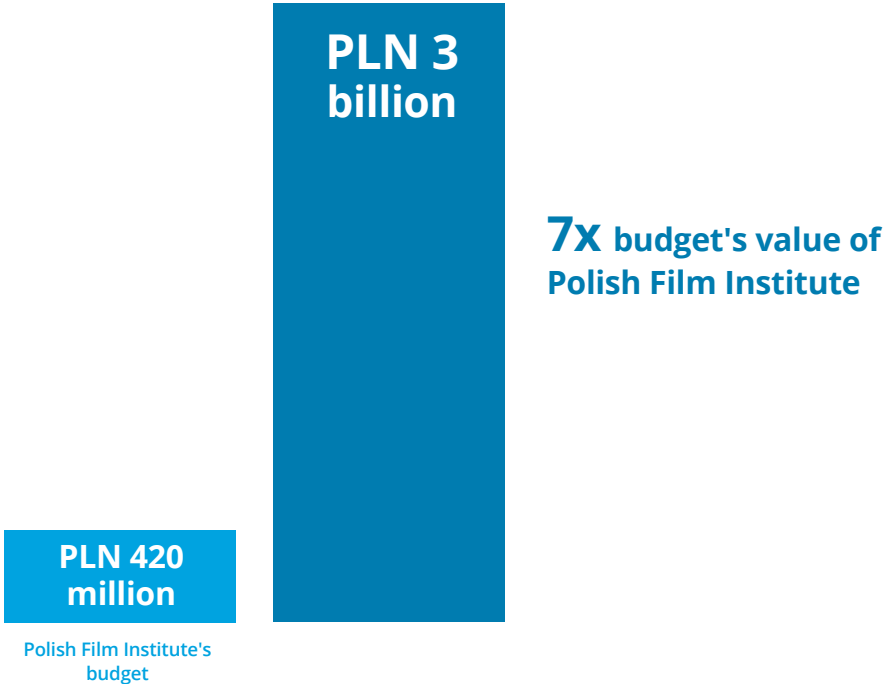
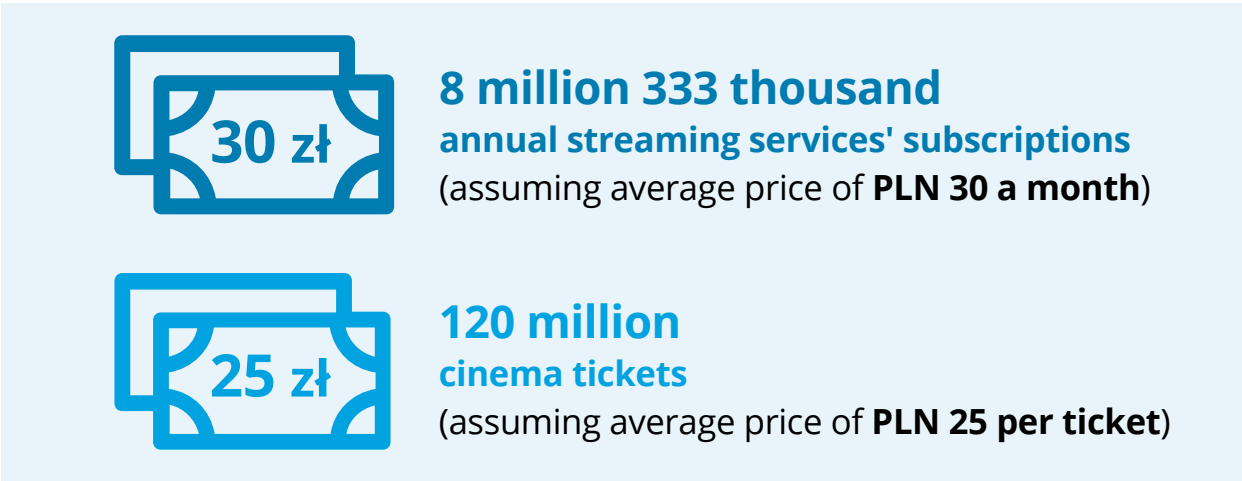
per user of on-demand content



Average monthly number of visits to pirate sites from Poland (2023)

129.3 million







Introduction

Purpose of the report

This report, prepared by Deloitte Advisory Sp. z o.o. sp. k. and commissioned and financed by Sygnał Association is an attempt to estimate losses resulting from internet piracy affecting the creative industry on the audiovisual market in its two segments – video on demand and live streaming.

This report describes the digital piracy segment in Poland in 2023. The recent years have seen dynamic changes both on the legitimate and pirate market. The audiovisual market has changed in terms of technology (rapid development of streaming technology), offerings (new

players on the Polish market, consolidation of some part of industry) and consumer's habits (previous trends accelerated during the pandemic). The piracy market followed suit with streaming becoming a dominant, although not the only one, form of illicit distribution. Further to that, proactive efforts by rightsholders to reduce the scale of piracy have had an impact on the extent thereof.

In this report, the term of internet piracy refers to the activity, which involves publication, distribution and enabling access to audiovisual works via the internet (on the analysed markets: video on demand and live streaming) without the consent of

rightsholders, against the agreed terms or contrary to applicable law regulations. The catalogue of activities, which are classified as piracy for the purpose of this report, includes the following:

- providing files for download
- providing content for online viewing in streaming
- providing of works from unlicensed sources both by embed/iframe and hyperlinks
- any forms of unlicensed or unlawful distribution of works
- aiding and abetting to perpetrate the above activities.

In the current legal order, the intermediaries, whose resources are used to commit infringements are exempted from liability for the said infringement up to the point when they are notified thereof. If, upon receiving a reliable information on their co-participation in the activity, they fail to undertake appropriate actions, they are then as fully liable as a perpetrator. As far as services which can be rendered to pirates are concerned, the following can be distinguished in particular:

- 1 TECHNICAL INTERMEDIATION:** domain registration, hosting, streaming, cloud, network services
- 2 BUSINESS INTERMEDIATION:** selling and publishing advertisements
- 3 PAYMENTS PROCESSING:** SMS payments, online bank transfers, selling prepaid cards, vouchers, access codes, etc.

The catalogue of activities classified as piracy is broad, however, not all activities have been exhaustively regulated by the current legislation. This chiefly results from the fact that the regulations currently in force were adopted in entirely different technological environment. Hence, it is difficult to make a legal assessment of some activities, which are taking place in the digital world. It is therefore expedient to adjust the current state of law to the new situation on the technological market.

Scope of report and research methods

This report presents the characteristics of audiovisual content piracy, specifying the leading methods of sharing content and its monetization, and also estimating the scale and impact of piracy in the analysed sectors. It also includes projections as to the development of this segment. Furthermore, it identifies the fundamental causes of piracy and describes a key tool used in the fight against digital piracy in other countries – blocking injunctions. In addition, it offers the recommendations for actions which should be taken to increase the efficiency of copyright protection on the analysed markets.

Analysed markets

Video on demand market (*audiovisual productions*): films, TV series, TV programmes, other audiovisual productions (animated short films for children).

Live streaming market: streaming of live sports and other events, e.g. concerts; re-streaming of TV channels.

Where possible, the results of conducted research were presented with the breakdown into individual markets. The analysis also revealed other forms of illegal distribution of audiovisual content, such as IPTV, card sharing or accounts sharing, however, they could not be included in aggregate estimations and economic calculations as it was extremely difficult to assess for scale. Please note that this research includes only access to content via the internet, i.e. it does not include illicit activities involving physical content carriers (e.g. CDs, DVDs).

Research methods

The following research methods were applied when preparing this report:



Literature analysis – a critical review of empirical research on the economic impact of piracy with particular emphasis on the effects produced in the economic and social areas. The review included Polish and foreign research.



Quantitative study – a survey conducted using the Computer Assisted Web Interview method (CAWI) on a sample of 1,500 internet users aged 15-75 who use the following types of content available on the internet: video content, live streaming.



Interviews – personal interviews with industry experts to deepen the quantitative study on the issues analysed.



Economic model – estimation of the scale and impact of piracy activities on the markets covered by the analysis, currently and for the next few years.



Expert panel – critical analysis of the obtained results, and prognoses, complementing the aforementioned results with qualitative and quantitative elements.



Report structure

The report consists of 11 Chapters. Chapters 3-8 describe social and economic issues related to piracy, and Chapters 9-10 – related legal background. Chapter 11 presents the report summary.

Chapters 1 and 2 describe profiles of the analysed markets, including key factors contributing to their development in recent years and the current state of things.

Chapters 3-6 describe the piracy market with the key measures for capturing the scale of pirate supply and consumption, as well as descriptions of the most frequently used forms of piracy, and observations on how the market evolved in recent years. This also includes the analysis of trends that currently shape the market of the illicit distribution of audiovisual works, including the role and usage of social media. Furthermore, they detail the mechanisms of monetisation of piracy, including the role of online intermediaries. Also, they present the results of a study on the scale and causes of piracy, the motivations and perceptions of users reaching for illegally distributed audiovisual content. The said study was conducted for the purpose of this report.

Chapter 7 presents economic foundations of piracy and impact on legitimate businesses and the economy. Additionally, it estimates the losses suffered by rightsholders as a result of piracy of video content and streaming.

Chapter 8 presents projections for further developments and dynamics of piracy and assesses related expected losses of rightsholders up to 2030.

Chapter 9 describes the activities undertaken in Poland by various entities involved in combating piracy: rightsholders, organisations representing rightsholders, law enforcement agencies. It presents the most effective approaches to combating piracy, such as follow the money policies, which contributed to reducing the scale and mitigated the proliferation of some forms of illegal distribution of audiovisual content in recent years.

Chapter 10 describes some of the legal and self-regulatory solutions currently in place in selected European countries, i.e. Denmark, Spain, the Netherlands, Sweden, the United Kingdom, and Italy. In particular, it outlines the mechanism of so-called blocking injunctions, which are currently considered as effective and widely used approaches for combating piracy.

Chapter 11 is a summary which includes the recommended courses of action to reduce piracy of VOD and live streaming in Poland.

The order in which the content is presented is not synonymous with the order of the different stages of research and analyses carried out for the report.

1. Profile and dynamics of analysed markets

1.1 Profile of VOD and live streaming markets

Access models for audiovisual content involve online and offline, as well as encrypted and free-to-air distribution of television signal. These models are subject to rapid changes, including new services brought by the new global players entering the market, and a series of mergers and acquisitions leading to the integration and repositioning of existing services in recent years. The prime example is a recent merger of the Discovery Group and

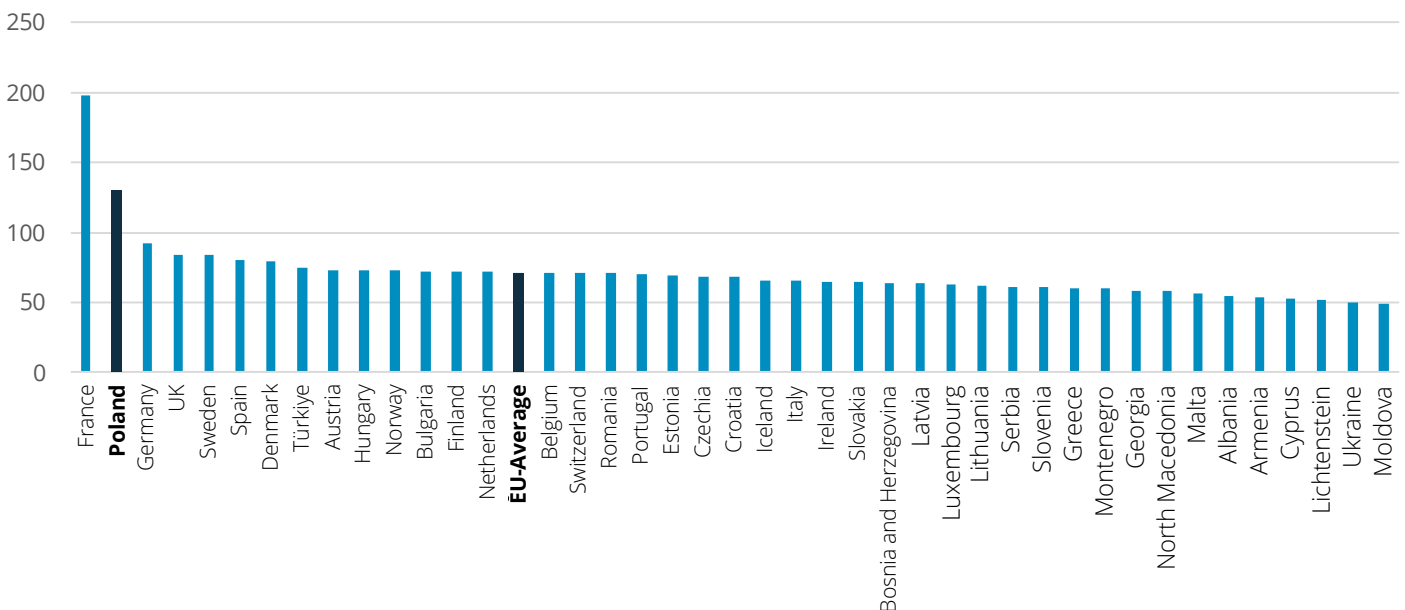
WarnerMedia. In this context, it is worth noting that the Polish market is currently characterised by a relatively high number of SVOD services, the second highest in Europe after France. The aforementioned consolidation of services may increase the appeal of offers for consumers. In addition to a large number of SVOD services on the Polish market, there is a current trend of growing AVOD segment, which offers free access to audiovisual content financed by advertisement. This model of content monetisation may be an

effective response to the stronger appeal of piracy due to rising costs of living.

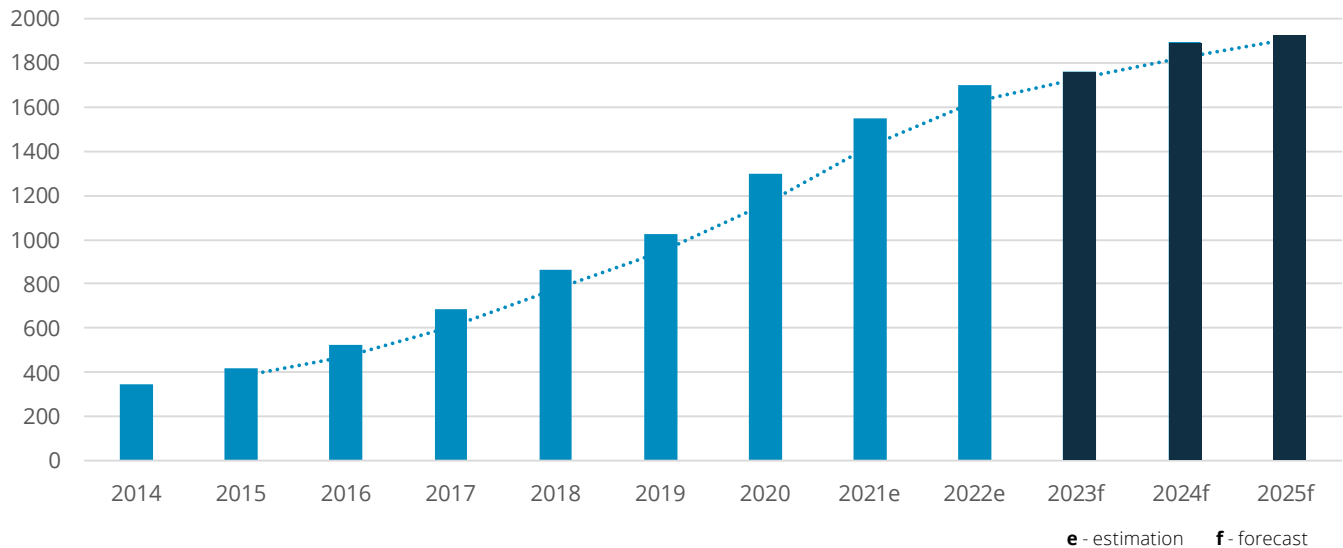
1.2 Dynamics of VOD and live streaming markets

The audiovisual market in Poland is characterised by a high number of available platforms, as well as access models. The video on demand market is growing rapidly, particularly the platforms offering films and TV series on demand. During the period of five years, between 2014 and 2019, the value of the market nearly tripled from

Figure 1 Number of available SVOD services in Europe



Source: European Audiovisual Observatory (2023) Key trends 2022/2023

Figure 2 Value of VoD market in Poland (PLN, million)

Source: prepared by Deloitte based on PMR (2020) Pay-TV market in Poland 2020. Market analysis and growth forecasts for 2020-2025

PLN 344 m to PLN 1.023 bn. According to estimates, in 2020 it reached the value of PLN 1.3 bn to exceed the value of PLN 1.5 bn a year later (estimated revenue of VOD platforms from subscriptions and pay-per-view services). Technological progress and growing internet penetration among consumers are the key drivers. At present, over 80% of Poles declare regular online presence. In 2023, the video on demand market is still growing. It is estimated that it will reach the value of PLN 1.9 bn in 2025.

However, the growth of the VOD will gradually slow down, due to, among others:

- 1** Dynamic growth of VOD platforms in previous years and the market saturation as a result. Today, an average VOD viewer has access to more than one subscription. According to the Digital Consumer Trends 2022 report, an average user of VOD platforms subscribes to 2.31 services.
- 2** Fragmentation of offers. The market of VOD platforms has become fragmented, which along with increasing exclusivity of offered products requires more and more subscriptions, while fragmentation reduces demand for each service. The observed integration of offers may prevent this trend.

- 3** Slowdown of economic growth. As a consequence of growing economic pressure, the disposable income of the population, i.e. the amount of money they have available and can spend on consumption or savings, decreases. Having less money in their pockets, the consumers cut back on spending that is not essential for survival - including entertainment. Consequently, they are less willing to spend money on sites that provide access to video on demand content, which may further reinforce the trend of consuming content from illegal sources.

Due to increasing popularity of broadband in Poland, it is feasible to have now live streaming in a satisfactory quality, which contributes to growing popularity of watching live streaming over the Internet. In this respect, there are two types of services provided:

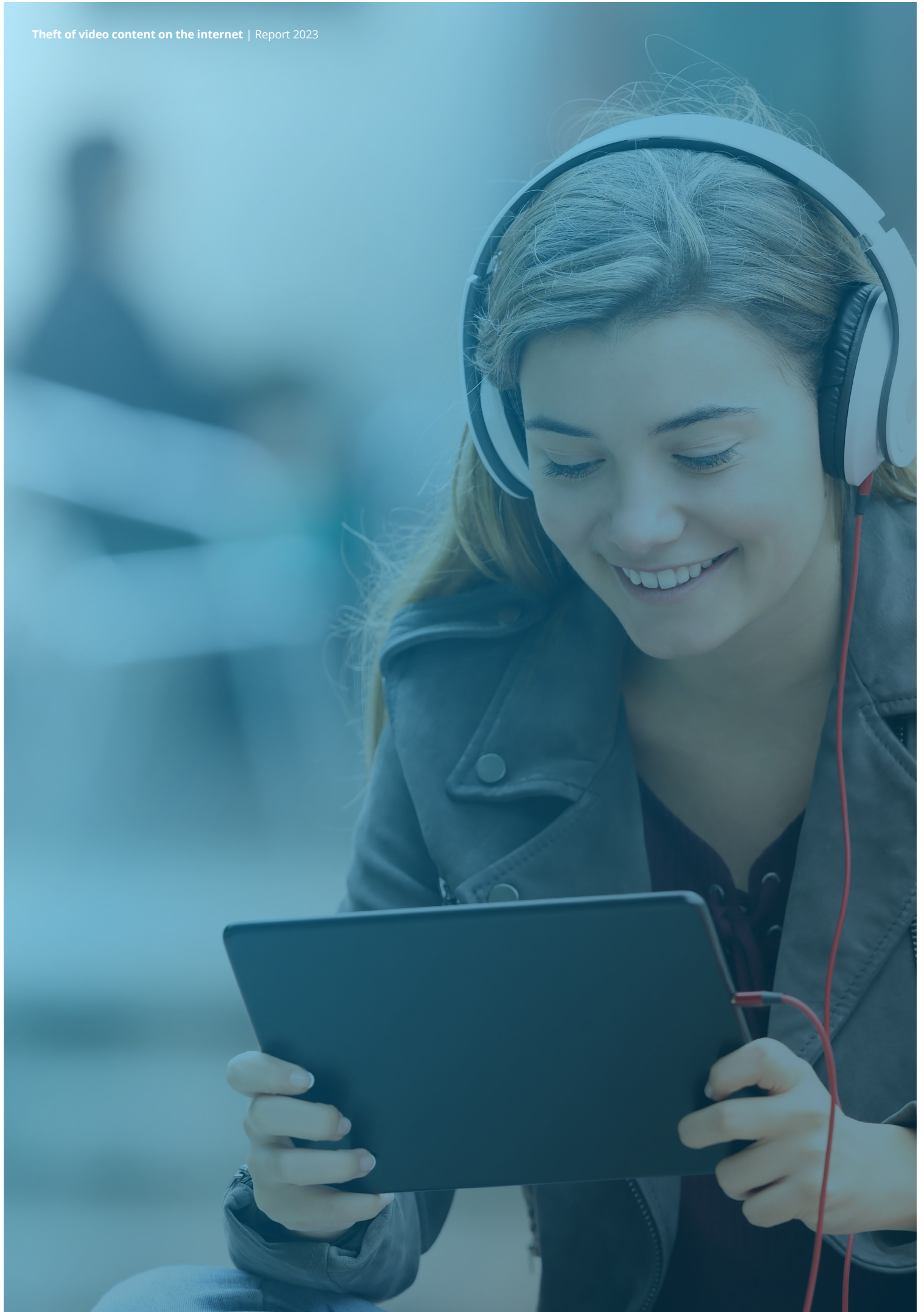
- **online re-broadcasting of cable and satellite TV channels;**
- **live streaming covering sporting events or concerts not otherwise available.**

Providers of television services distributed by broadcasting, satellite or cable have long recognised the growth of the internet and the shift in the preferences of some

viewers towards on-demand services available online. For this reason, some TV service providers have for years been offering internet TV packages that, depending on the business model and technical conditions, can be received online. Importantly, sport channels play a special role in the offer of TV live content broadcasters. Those broadcasting popular sports such as football, boxing or speedway leagues, as well as seasonal sports such as basketball, hockey or winter sports, are the driving force behind premium package sales.

In parallel, there are monetisation models based on one-off access to streaming of the most luxurious events online on a Pay-Per-View basis. In both cases, the prices proposed are relatively high, due to the high cost of acquiring a streaming licence and the small scale of competition between the leading leagues.

Therefore, there is a significant unmet demand in the TV market to watch live sport events for free or for a small fee. The pirate segment involved in organising illegal re-broadcasting of both premium channels and re-streaming individual sport events.



2. Factors shaping the audiovisual content market in 2023

Introduction

Analysis of the factors shaping the audiovisual content market allowed for identifying the sources of current trends in the market, including in the pirate segment. The first factor at play is the current and extremely dynamic economic circumstance, notably with high inflation. It is decreasing the real incomes of population, which pushes consumers to seek savings, in the first instance by cutting costs they do not consider essential. As a result, the use of piracy sites may be a solution to staying in touch with culture and entertainment despite a reduction in related spending. Another driving force is the aftermath of the coronavirus pandemic. COVID-19 led to closing of cinemas, to which audiences are slowly returning, largely due forming new habits of watching films on VOD platforms. Another factor, which can be observed on the Polish audiovisual market is the increased consumption of Russian-language platforms, which share video on demand video content. It results from a significant number of Ukrainians migrating to Poland due to the war with Russia. Another important factor shaping this market is a series of mergers and acquisitions, sometimes leading to fundamental changes in their portfolios.

Economic changes

The rising cost of living caused by an unprecedented rise in prices in recent years is forcing changes in consumer behaviours. Under such pressures, spending on entertainment is among the first to be cut back, especially when it is possible to substitute it with content purchased from illegal sources with ease and impunity. Additionally, the fragmentation of the VOD market and the exclusivity of content available on a given platform contribute to increasing perceived benefits of accessing content through illegal platforms.

In 2022, the global scale of piracy increased significantly. The visits to pirated film sites went up by 36.4% and visits to sites broadcasting illegal TV channels went up by 8.8%. Further increase is expected in 2023. This trend is undeniably unfavourable to the distributors of legal content, but they may try to analyse it to better understand the consumer needs. One way to tackle the situation and address these needs would be to expand the offer of AVOD services (advertising-based video on demand, offered with embedded advertisement), an example of which is the relaunch of the domestic vod.pl portal based on such a service model.

It is also possible that platforms currently operating exclusively in the SVOD model will enrich their offer of AVOD content, following the observed diversification of their offer by global platforms such as Netflix and Disney+, aimed at attracting new viewers with lower incomes.



COVID-19 pandemic

The pandemic has not spared the entertainment industry. Many major cinema premieres were postponed or took place online. In many cases, online premieres were due to film producers being forced to sell their rights to streaming services to save themselves from bankruptcy as they had no access to the main distribution channel. Thus, major blockbusters premiered in Poland on video-on-demand platforms and they can still be available there today. During this time, viewers have become accustomed to watching the latest films in the comfort of their homes. Some of them to such an extent that they are reluctant to return to cinemas. In 2022 when cinemas were open year-round for the first time since the start of the pandemic, more than 40 million tickets were sold nationwide, fewer by a third than before the pandemic. The situation is similar from the global perspective.

2019 to 2022. However, this may translate into a slower growth rate in the following years.

Geopolitical situation

The Russian invasion of Ukraine, which began in February 2022, has contributed to a significant influx of Ukrainian refugees to Poland. Between 24 February 2022 and April 2023, more than 11 million people of Ukrainian fled to Poland. It is estimated that around 1.3 million of Ukrainian refugees is residing in our country with 22% of them declaring their intention to stay permanently. Although this percentage is not very high, the prolonged conflict and no prospects for its ending in the near future contribute to the fact that a significant number of refugees remain in Poland.

The presence of a large number of people from Ukraine has significantly increased the availability of services in Ukrainian language. It concerns both the public ones

Although the industry is enjoying an increase in audiences after the pandemic, the scale is still smaller than before the outbreak.

During the harshest lockdowns in 2020, Poles were forced to spend time at home. Remote working and no commuting, as well as less entertainment, meant they had more free time on their hands. Many of them then opted for video-on-demand subscription packages, where they could watch new film productions and TV series. Over time, their entertainment habits changed and, in many cases, subscriptions to VOD platforms took hold in Poles' homes for good, as can be seen in rising numbers of subscriptions and the amount of time spent on these platforms. In the meantime, new platforms have launched in Poland, such as Amazon Prime Video and Sky Showtime. The COVID-19 pandemic has accelerated trends in the live streaming and video on demand markets, which was reflected in a large annual market growth in

(e.g. Polish Social Insurance Institution's website) and private services (e.g. banks, TV commercials). This trend has not escaped the attention of the audiovisual content providers, who are expanding their offer in the Ukrainian language.

Market consolidation

The audiovisual content market has recently observed high fragmentation of providers due to the entry of many new platforms into the Polish market. This way, the offer for audiovisual content has expanded (more titles are available), but at the same time dispersed (access to content of interest to users requires subscription to many separate platforms). This results in a higher overall subscription cost for a person who wants to access a wide range of content. It may encourage

the consumers to use pirate sources, where the offer is broad and not limited to one platform. Nevertheless, the trend of acquisitions and mergers in the market is now evident, affecting bundling and integration of services. The key example of this is the merger of the Discovery Group (which in Poland includes TVN) with Warner Media (owner of HBO and Warner Bros.), and the acquisition of the recently reactivated vod.pl portal mentioned above as part of the transaction with Ringier Axel Springer.

Consolidation trends should contribute to the integration of services offered by both groups. Already now, integration of services among digital service providers is quite common through licensing/distribution deals - for example, access to HBO Max's VOD is available to pay-TV subscribers on CANAL+ online. In addition, bundles including TV and internet are popular, now offered nationwide by Cyfrowy Polsat or UPC and by many local operators.

Drop in popularity of linear television

The AVOD and SVOD service providers by expanding their offers attracted consumers on a significant scale. In parallel, TV programmes are delivered to the majority of households in Poland by means of broadcasting as well as cable and satellite distribution. The penetration

rate of traditional TV in Poland is one of the highest in Europe, but with each passing year the percentage of linear TV reach is steadily decreasing. This impacts, among others, the decisions of advertisers where to locate their budgets, which increasingly include AVOD services.

Short-form video

In recent years, particularly on the social media platforms and in the mobile apps, short-form videos of a few dozen seconds or so have grown in popularity. Today, every major UGC platform has short video forms on offer. This form is particularly popular with younger audiences. Almost three fourth of users of TikTok globally, which is the current leader in short-form videos, are between 18 and 34 years old.

The growth in popularity of short-form videos is having a significant impact on the audiovisual content market. As a consequence of consuming content that typically lasts less than a minute, consumers are becoming accustomed to fast, dynamic and engaging video forms. Their attention span is much shorter, which results in concentration difficulties when watching longer forms, such as films, TV series or sports streaming. Hence the rise in popularity of sports abridged forms, which compile the highlights of an event. This allows customers to find out the most relevant information without having to

watch the entire event. This trend may contribute to a decline in the viewing of live streaming, especially among younger audiences.

The proliferation of short forms has an impact on the piracy of audiovisual content too. These abridgements of sports events are not always created by a legitimate broadcaster of an event. It is common for fans to create and distribute them on high-bandwidth platforms. This is also the way in which, for example TV series divided into parts, or individual events from news programmes are distributed. This reduces content consumption among legitimate broadcasters and contributes to their higher losses.





3. Piracy in Poland

The following chapter attempts to describe and measure the audiovisual content piracy taking place in Poland in 2023. This description covers both piracy via dedicated websites in the form of sharing video files and accessing illegally shared streaming, as well as piracy of satellite channels via card sharing, copyright infringement on social media platforms, and account sharing on legal streaming platforms. The chapter also contains an analysis of the risks that users of sites offering illegal access to audiovisual content face, together with the opinions of internet users.

3.1. Forms of piracy of video on demand and live streaming

Just like the growth of broadband and mobile internet access has enabled the development of legal platforms, it has also driven the spread of illegal streaming. Today, it is the main form of illegal consumption of audiovisual content over the internet, far outpacing other forms

such as downloading from torrents or hosting sites. In addition to watching on-demand content, streaming technology also enables illegal dissemination of live events in real time.

Pirate sites and services can be structured based on the method by which content is delivered:



On-demand viewing in a browser window, i.e. **Streaming**



Downloading for later viewing, i.e. **Downloading**



Linking to all kinds of infringements with the intention of building a catalogue or aggregator of pirated content



Restricted means of content delivery to specific audiences via various technologies, e.g. BitTorrent, IPTV, card sharing

One of the latest trends is the migration of piracy activity to semi-open or closed platforms, such as Discord or paid online forums, which allows for less public exposure of shared content and potentially greater resistance to anti-piracy actions. This is a side effect of the fight against audiovisual piracy on the open internet.

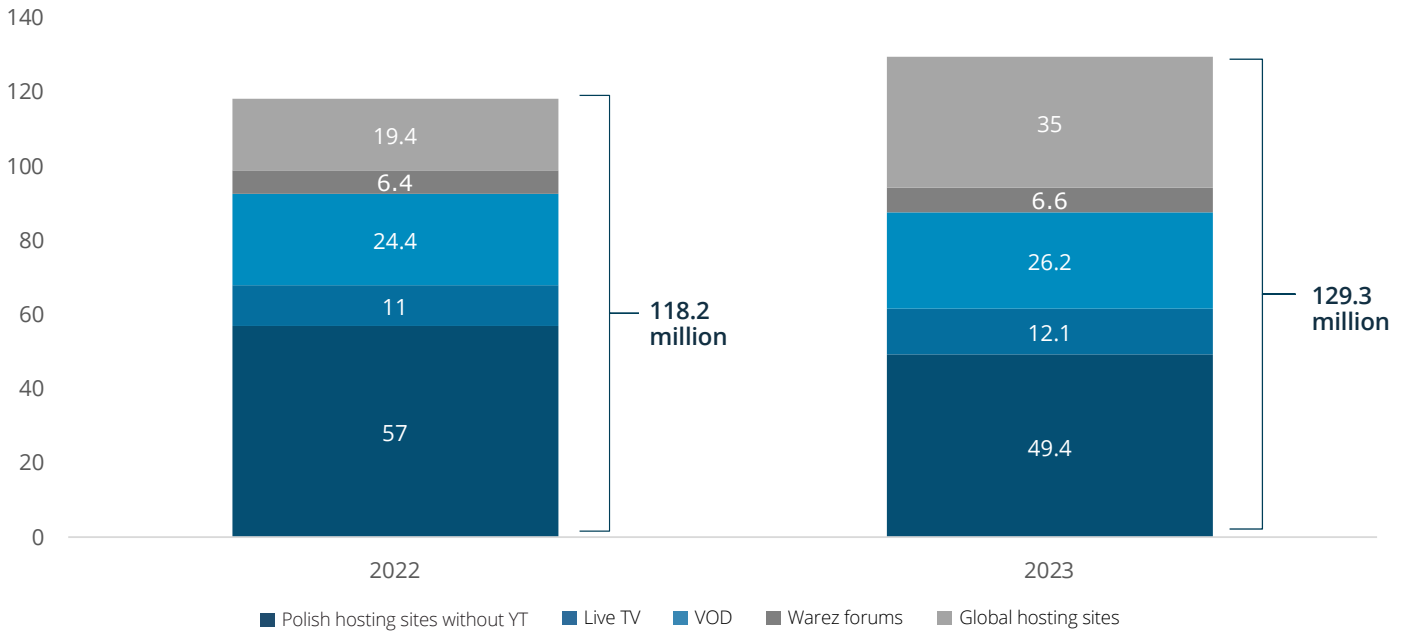
3.3.1 Web streaming

A pirate on-demand streaming site usually resembles a legitimate provider, i.e. it offers an extensive catalogue of content with recommendations and popularity rankings on its homepage, a search engine, and sub-pages for individual works where media players are published allowing the individual works to be viewed instantly at the click of a button. In technical terms, the website is built entirely by a service provider, often using services of foreign providers, including those located in non-European countries, in order to make potential legal action against such a site more difficult.

Streaming is now the dominant form of online piracy of video content. According to the APP's data, the Polish hosting sites record the largest number of visits from Poland (excluding YouTube). The second most visited type of a pirate source are global hosting sites, followed by VOD sites, Live TV and Warez forums with links to pirate downloads, largely offered by local piracy operators..

Other piracy technologies such as torrents, IPTV, mobile apps, and social media piracy are outside the scope of the analysis.

Figure 3 Average monthly visits from Poland to pirate sites within the main segments in 2022 and 2023 (million views per month) (data for 2023 to March inclusive)



Source: APP, Similarweb

The structure of average monthly visits from Poland within the segments for which data is available for 2022 and 2023 (data for 2023 to March inclusive) is presented in Figure 3.

Live streaming of sport events

Re-streaming sporting events for their duration is an important segment of audiovisual content piracy. Two types of websites are involved: (a) those organising streaming for the duration of an event, (b) those generating traffic on pirate streaming sites by publishing links or embedding ready media players with streaming. The incentive for the organiser of illegal re-streaming is to place advertisements in the player, while for a linking party, to place advertisements around the published player or links to external sources.

Live TV streaming

This segment of pirate business involves re-streaming of linear TV channels, usually compiled from various packages from different broadcasters. Websites offering access to such content operate based on a

monthly subscription worth about 20% of the most expensive satellite broadcaster's package and offer 100-120 sought-after channels with films, sports, cartoons, news, etc. The target group for this type of pirate sites is both Polish residents looking for economical forms of access to live TV and the Polish diaspora abroad, who usually have a scarce and expensive offer of Polish channels within the packages available in the USA or UK.

Streaming-enabling platforms

A number of platforms such as Twitch and YouTube operate by providing an infrastructure for authors of original content. However, the existing solutions are heavily abused by users who use them to distribute copyrighted content for both live streaming and VOD.

3.3.2 File downloading

Cyberlockers

Platforms dedicated to the distribution of pirated files, which are based on rewarding uploaders with a commission depending on the number of downloads of files they have

uploaded. Thus, they incentivise uploaders to distribute links to their uploaded files widely and thereby generate downloads. The business model of cyberlockers is based on the sale of premium access including unlimited downloads. They reward the best uploaders from the revenue generated.

File exchange platforms

Sites built as platforms to publish and publicly share all kinds of files, including videos, and host them on their own infrastructures. They usually constitute closed ecosystems and are rarely used for external linking. Like cyberlockers, they reward uploaders for downloads of their published files. The business model involves charging for transfers, which means in fact access to content published by other users.

Torrents

This name refers to websites that provide directories of video and other content with links to download these files over P2P networks. Torrent can also be

3.3.4 Restricted-access delivery of content to specific groups of receivers

IPTV

IPTV

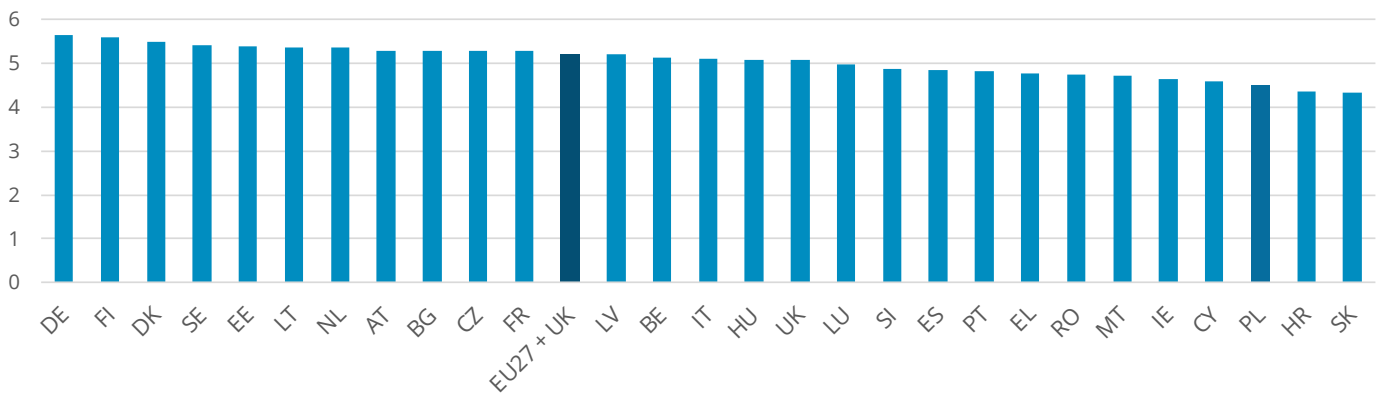
In contrast to web streaming, IPTV (Internet Protocol Television) is a form of delivery of television signal using broadband networks with technical pairing between the receiving device and the content distribution network. In legitimate IPTV services, the end device requires registration using a unique network identifier known as a MAC-address and it is usually a dedicated TV box. Pirate IPTV services do not use so far-reaching security and they base conditional access most often on one-step credentials, i.e. username and password. The reason for this is to attract users who want to receive IPTV services not only via a TV with a receiver box, but also via a computer, Smart TV, smartphone, tablet or similar device, via a receiving application with an uploaded file, so-called channel playlist received from an IPTV service provider. Pirate IPTV providers typically offer a package of a few hundred to a few thousand TV channels and a library of films and TV series for considerably less than comparable packages from legitimate providers ranging

from a few to around twenty euros per month. IPTV services is a form of piracy of video content and streaming, which prevails primarily in countries having effective instruments in place to combat web piracy, i.e. being delivered via websites and received via a browser. In Europe, IPTV penetration is the highest in the Netherlands (8.2%), Sweden and Ireland (7.2% each) and the lowest in Romania (less than 1%), Poland (1.5%) and Bulgaria (1.7%). It is estimated that more than 17 million people use illegal IPTV across Europe, or a total of 4.5% of the entire European population. An average IPTV user from the UE and UK spends more than 5 euros per month on subscriptions. This generates losses for legitimate providers of more than three billion euros per year. The user base of pirate IPTV services in Poland is estimated at 444,000 people with an average spending of 4.5 euro per month.

To calculate IPTV penetration in European countries, in the report by Audiovisual Anti-Piracy Alliance two measures were used: each country's population share that watch TV online and each country's population share that watch video content coming from illegal Internet sources.

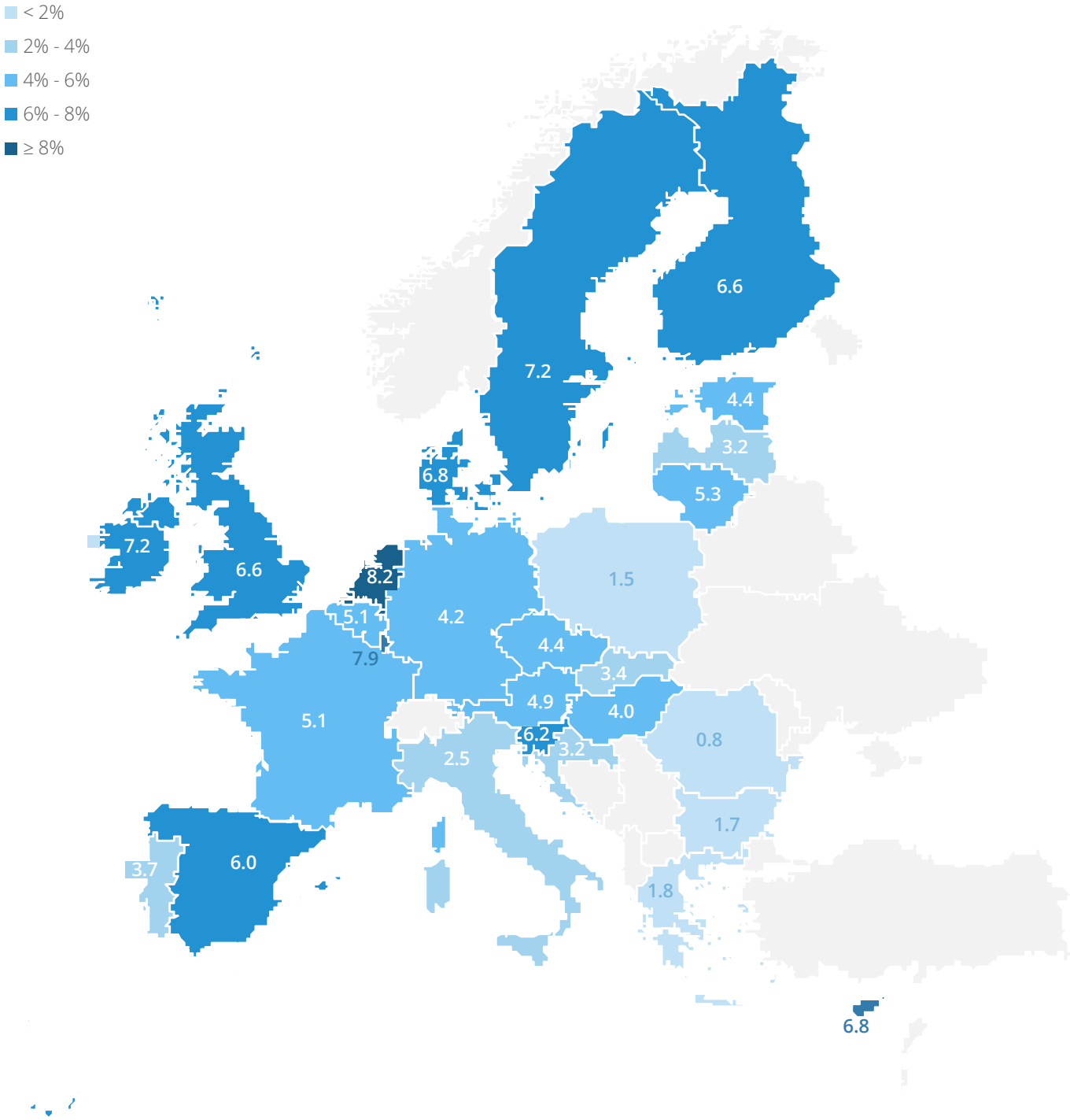
IPTV penetration was calculated by multiplying these two measures. That means that Poles living permanently in countries such as the UK, Germany or the Netherlands are included in the statistic for those countries. Nevertheless, they can use IPTV for instance to watch Polish productions. In this case, even though the practice is taking place abroad, it negatively affects revenues of the Polish audiovisual sector.

Figure 4 Average monthly spending on subscriptions among IPTV users (EUR)



Source: Deloitte based on Audiovisual Anti-Piracy Alliance (12.2022) Illicit IPTV in Europe – Economic Report

Illustration 1 Popularity of IPTV in Europe - percentage share of IPTV users in each country's population in 2022



Source: Deloitte based on Audiovisual Anti-Piracy Alliance (12.2022) Illicit IPTV in Europe – Economic Report

Table 1 Popularity of IPTV in Europe - percentage share and number of IPTV users in each country's population in 2022

COUNTRY	SHARE OF IPTV'S USERS IN THE POPULATION	NUMBER OF IPTV USERS
Austria	4.9%	330 thousand
Belgium	5.4%	457 thousand
Bulgaria	1.7%	91 thousand
Croatia	3.2%	99 thousand
Cyprus	6.5%	44 thousand
Czechia	4.4%	353 thousand
Denmark	6.8%	291 thousand
Estonia	4.4%	43 thousand
Finland	6.6%	270 thousand
France	5.1%	2 million 452 thousand
Germany	4.2%	2 million 574 thousand
Greece	1.8%	138 thousand
Hungary	4.0%	297 thousand
Ireland	7.2%	260 thousand
Italy	2.5%	1 million 140 thousand
Latvia	3.2%	45 thousand
Lithuania	5.3%	110 thousand
Luxembourg	7.9%	38 thousand
Malta	7.0%	28 thousand
Netherlands	8.2%	1 million 71 thousand
Poland	1.5%	444 thousand
Portugal	3.7%	288 thousand
Romania	0.8%	123 thousand
Slovakia	3.4%	141 thousand
Slovenia	6.2%	96 thousand
Spain	6.0%	2 million 111 thousand
Sweden	7.2%	537 thousand
UK	6.6%	3 million 194 thousand
Europe (EU and UK)	4.5%	17 million 64 thousand

Source: Deloitte based on Audiovisual Anti-Piracy Alliance (12.2022) Illicit IPTV in Europe – Economic Report

Cardsharing

The cardsharing scheme affects encrypted television. It involves multiple people decoding a satellite signal using only one legal subscription card by means of sharing credentials. It is a form of piracy in which the internet is used only to transmit so-called working keys, which are necessary to decode a signal received from a satellite. Currently, this method of illicit access is probably the third most widespread, after online streaming and IPTV, but its scale is difficult to measure as it is invisible from the outside until it is detected, unlike forms using the internet for content distribution, which are widely available and measurable. The scale of it can be estimated from the number of offences detected and criminal proceedings conducted against pirates and individual users using this service.

The illustration below shows a typical set up of a cardsharing service.

From a legislation point of view, both a pirate and a person using their services are subject to criminal liability for the act of circumventing the security measures of the conditional access system. Additionally, depending on how the acquired TV signal was used, simultaneous infringement of copyright and related rights of a right holder

is not excluded, as is the case with online streaming and IPTV.

3.2 Social media piracy and sharing access to legitimate VOD services

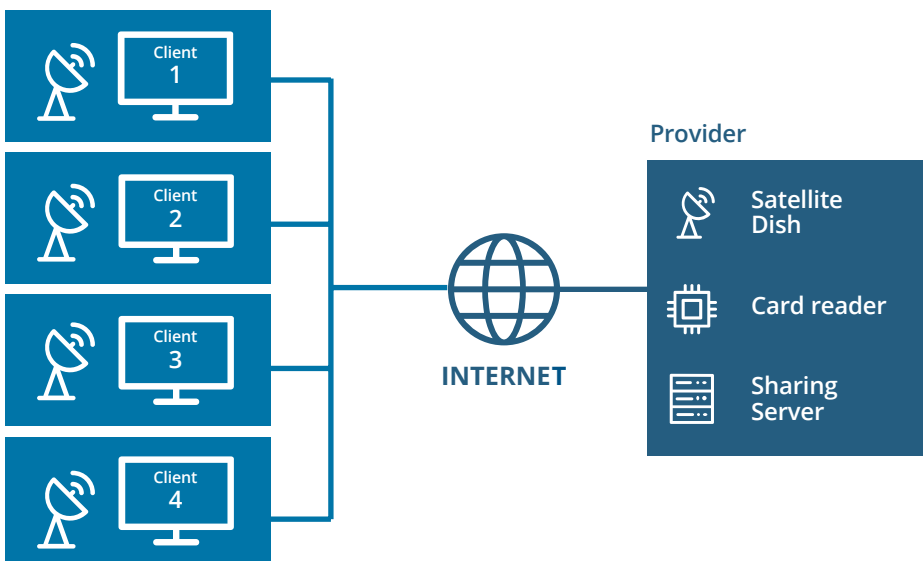
Development of technology and emergence of new communication platforms brought about a proliferation of solutions supporting the exchange of video content, which also benefits pirates. In recent years, new forms of illegal dissemination of audiovisual works in social contexts and in semi-restricted environments such as gaming servers or mobile applications have been developing most notoriously.

Social media and communicators

A key driving force for the social media platforms, which have grown into the internet landscape, has been to allow users to publish video content. Although the platforms include in their terms and conditions a prohibition to publish content without a licence, they themselves do not verify this, but rely on a presumption or statement made by a user acknowledging these terms and conditions. YouTube is the largest such platform, which is based entirely on dissemination of audiovisual material uploaded or streamed by users, while the social aspect is reduced to

the possibility to only comment on the material. Similarly, the social platform Facebook has long supported video publishing and live streaming as part of its strategy. Other platforms such as Twitter follow suit, and mobile apps such as TikTok base their models more and more often on user-sourced videos, leaving a door open to publishing copyrighted content without verifying its legitimacy. As a result, a whole new field of distributing copyrighted content without a licence is opening up, where both legal audiovisual content and users' personal content are mixed on social media platforms. This is a phenomenon that is signalled in this report as a form that has been researched, but not included in the calculation of industry losses. Nonetheless, they can be significant. For example, the incident of illegal re-streaming of the KSW 37 gala in 2016 available in the PPV model by one Facebook user was widely commented. According to law enforcement authorities, the illegal streaming was distributed to 33,000 people on that site alone, exposing the company to losses of around PLN 1.3 million.

As a result of pressure from content owners, the operators of YouTube and Facebook have provided rightsholders with tools for automated management of their rights. Although not perfect, they significantly improved the situation for rightsholders and gave them at least a partial control over the presence of their own material on these platforms. Some platforms and applications, such as Dailymotion and TikTok, are also moving towards building rights management tools. Others merely provide the possibility to report infringements on a case-by-case basis, without prior detection or blocking of repeated infringements of the same rights. In all cases, however, the burden is on the rightsholders to act, and when they don't do so, the platform benefits from a disclaimer and profits fully from the monetisation of unlicensed copyright content.



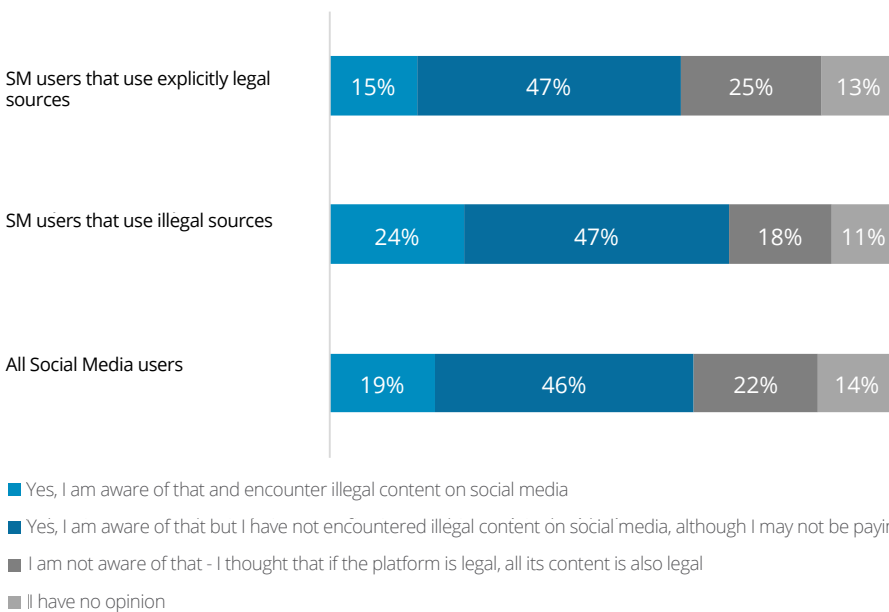
This does not mean that pirated content does not appear on social networks. The key is speed of response of platforms to reports of copyright infringement, which is acceptable when hours are concerned for on-demand material, but for live streaming it is too long - the effective response time in such a case is a maximum of half an hour. In practice, this is difficult to implement, especially in the evenings or at weekends when major sports events are broadcasted. As a result, considerable amount of content becomes available on social media for free for everyone to view.

It is worth noting that there is another and related practice on social media: posting short clips from TV programmes or TV series, as well as football matches or other sporting events, focused on key moments, so-called highlights. Such content can quickly generate a large reach and, despite being only a snippet, it clearly competes with legitimate broadcasters of such content, making their offering less attractive and unique.

Most social media users are aware that they may encounter illegal content on these platforms. Those who also use explicitly pirated sources to access audiovisual content are particularly cognizant. This does not change the fact that almost half of users do not pay attention to the legality of content posted on social media.

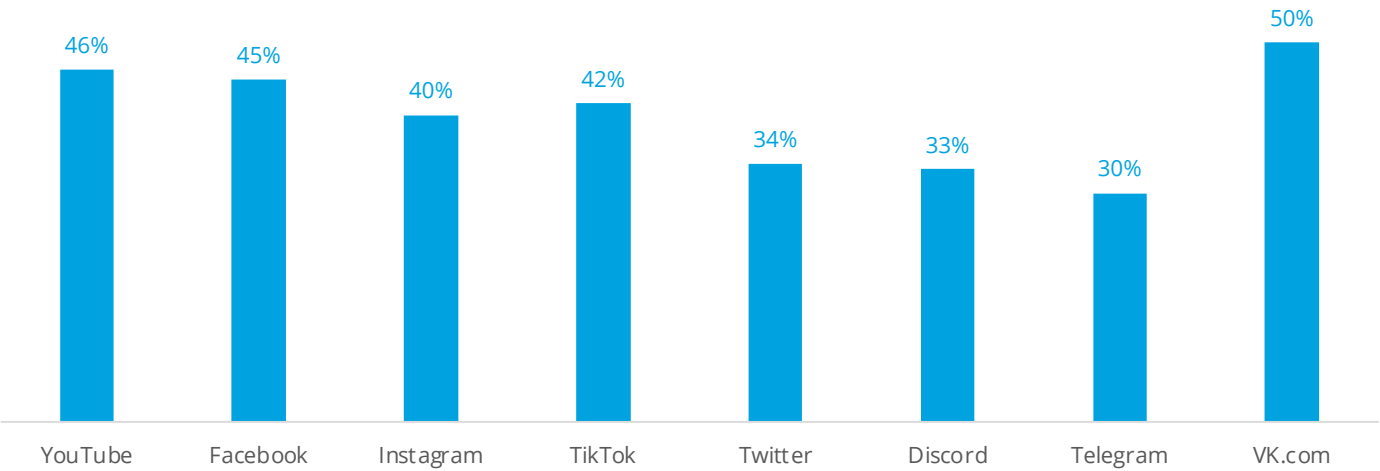
According to the respondents who use social media, at least a third of them have encountered illegal content posted on these sites. The highest percentage of the respondents (50%) noted illegal content on the VK platform - a Russian medium that combines functionalities known from Facebook and YouTube. In the case of Western sites, the highest proportion of illegal content was seen by YouTube users - by almost half of the respondents using YouTube. Content, which they encountered most frequently, varied depending on the type of service.

Figure 5 Awareness of illegal content posted on legitimate sites



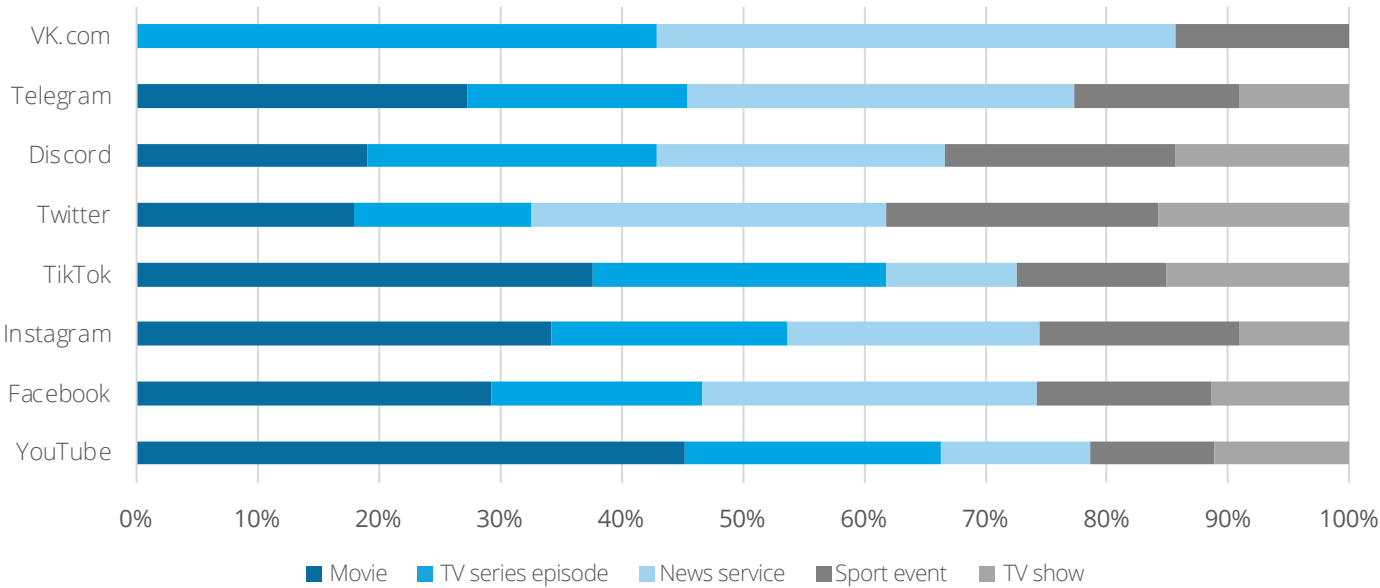
Source: Deloitte's analysis

Figure 6 Percentage of users of a given site who encountered illegal content on a particular site



Source: Deloitte’s analysis

Figure 7 Type of illegal content by platform



Source: Deloitte’s analysis

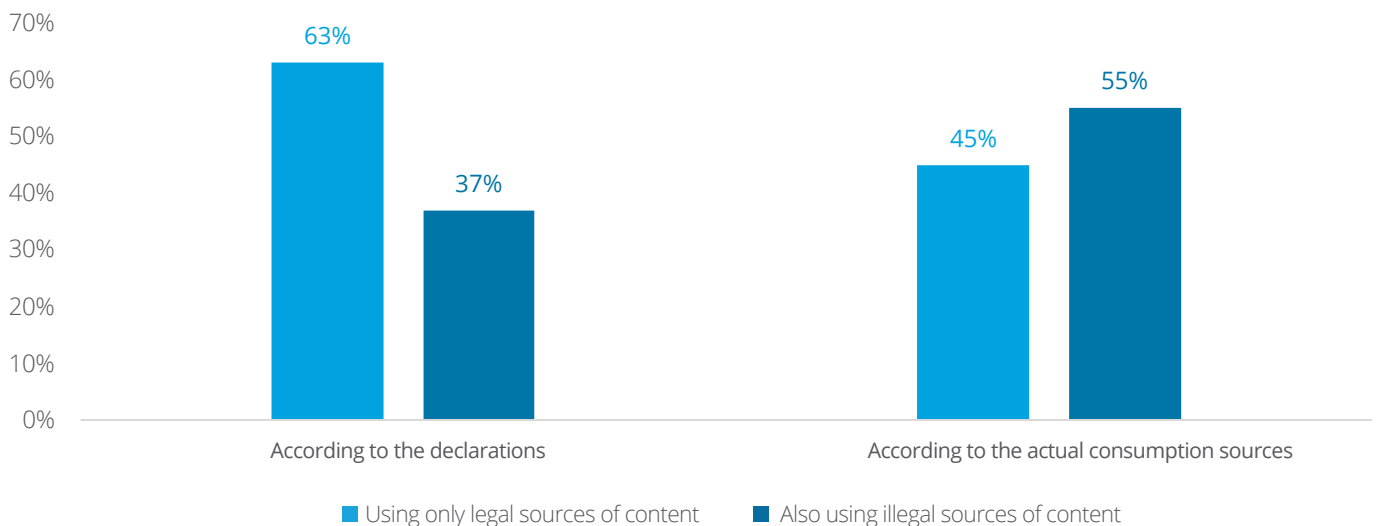
Co-sharing of access to VOD platforms

Many legitimate providers of audiovisual content based on a subscription model allow more than one person to use it at the same time within the same household, and to set up separate personal profiles within a single subscription for this purpose. This option is often abused, both by consumers who, due to cost-saving, choose to share an account with people they do not live with, and by third parties looking to make money on that. It consists in offering shared access online, for example on auction platforms, which provides buyers with the same benefits for a fraction of the price. It is against the terms and conditions of these platforms, in terms of infringements, for the purpose of this report, it is treated as piracy as it makes available the service for financial gain against the platform's terms and conditions.

Scale of account co-sharing

Among the respondents, 16% use accounts on the legitimate VOD sites shared with them for free by family and friends. 63% of the respondents declare that they use only legal sources of video on demand and live streaming, however, the actual figure is 45%. The majority, i.e. 55% of the respondents who use an account on a legitimate site without paying, use illegal sources of content in parallel. The discrepancy in declarative and actual results may show the low level of awareness of digital piracy in this group. A thesis regarding a lack of awareness of illegality of account sharing is also supported by the fact that 64% of individuals in this group pay for accounts on other sites.

Figure 8 Agreement with the statement "Sites offering pirated content should not be used because by doing so performers and producers are not properly compensated for their work."



Source: Deloitte's analysis based on user's survey conducted for the report

The most commonly shared accounts are those on the largest paid video on demand sites. They accounted for almost 70% of sharing incidents identified in the sample. Thus, on average, an individual who takes advantage of this scheme contributes to a decrease in spending on legal content by PLN 339 annually.

3.3 Cybersecurity and privacy risks related to audiovisual piracy

Unfair competition from pirate sites means that legitimate video and broadcast sources are seeing reduced revenues as potential viewers are migrating to illegal sources.

Reduced revenues from subscriptions or one-off content payments can potentially lower the budgets reinvested in the creation of new content and make the producers' remunerations inadequate for

the work they put into a given production since savings will be required. Furthermore, content creators, based on low viewing figures from authorised sources, may decide not to continue with a particular production, such as abandoning the next part of a film or the season of a TV series. However, it may turn out that the production in question is very popular, but on unauthorised channels without compensating the rightsholders. In this case, the production decision is

detrimental to consumers, both from legal and illegal sources, as it does not reflect their content preferences.

In the survey conducted, the majority of respondents recognise this risk. More than 60% see that the use of piracy sites can result in artists (actors, writers, etc.) and content producers receiving lower remuneration than what the market would have valued in the absence of piracy. Only a small percentage of people said that piracy has no impact on creators' remuneration.

Figure 9 Agreement with the statement "Sites offering pirated content should not be used because by doing so performers and producers are not properly compensated for their work."



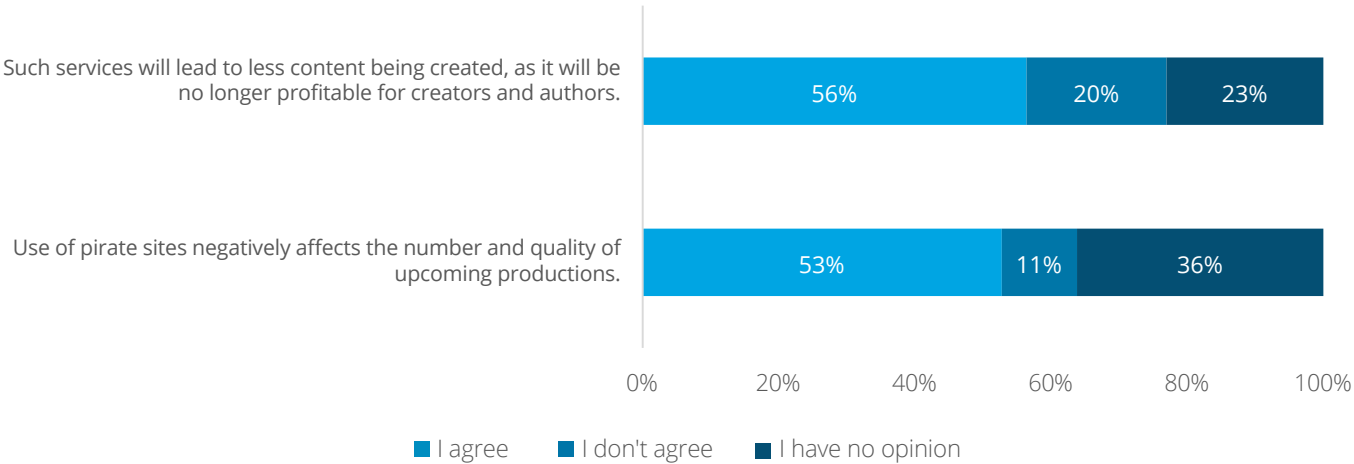
Source: Deloitte's analysis based on user's survey conducted for the report

The respondents also see the long-term impact of piracy on the audiovisual content industry. More than half note that the use of piracy sites adversely affects the number of productions, but also their quality.

They see the lower revenues or even a potential lack of revenues as the source of this problem. Awareness of this risk increases with the age of respondents. Among those of retirement age, the

vast majority see piracy as a threat to further productions, while the youngest respondents are ambivalent about the issue.

Figure 10 Respondents' agreement with the thesis assuming a link between piracy and the quality and quantity of content



Source: Deloitte's analysis based on user's survey conducted for the report

Let's not forget that piracy of video on demand and live streaming may involve criminal liability for consumers. This is the case when content is made available illegally, even unknowingly, and when illegal cardsharing services are used. The threat of personal criminal liability and material consequences applies to those using torrents, as well as users sharing content via various types of hosting or digital file storages (cyberlockers).

In the survey conducted, two thirds of the respondents claimed that many people do not admit to using unauthorised sources precisely because of their fear of criminal liability. They indicated this as the main reason for hiding the fact that they were using pirate sites. Therefore, the internet users are cognizant of a direct risk associated with the use of pirate sites.

Piracy does not only mean losses for content creators, but also poses risks for those using illegal sources. Visiting pirate sites or running pirate apps may not only cause problems in terms of criminal liability if a content-sharing offence is detected, but also because of a risk of downloading malware, identity theft or falling victim to financial fraud by infecting a computer or phone. In the case of pirated mobile apps, the risk of installing malware is as high as 57%. Risks associated with the use of pirate websites are related to their monetisation model based on advertisements,

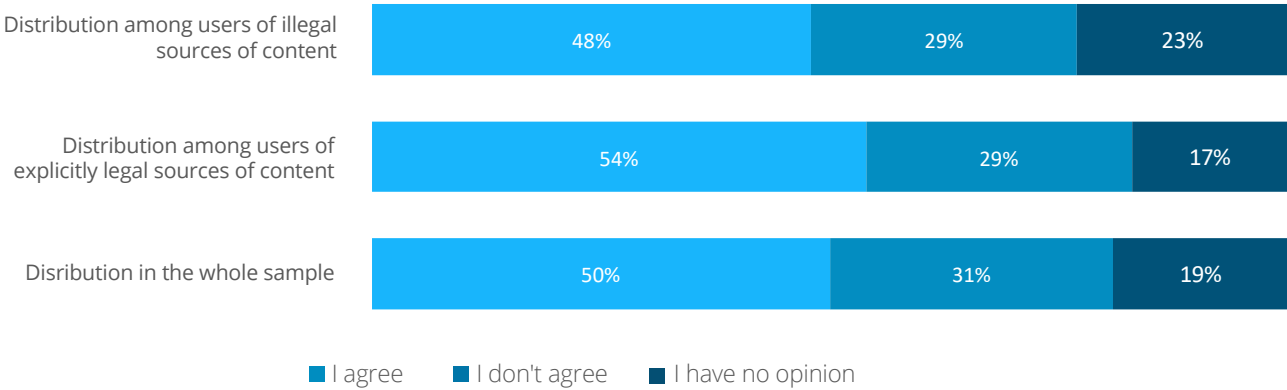
a significant proportion of which are attempts to infect an end device. For this reason, the consequences of using sites that offer content illegally can outweigh the potential gains from avoiding paying for video on demand and live streaming from a legitimate source, as the amounts stolen from bank accounts or losses associated with identity theft can exceed the savings by several orders of magnitude. One particularly dangerous virus that can be accidentally installed when using pirate sites is a banking trojan. By clicking a video player on a streaming site, users may download software with which hackers gain access to personal data and bank accounts. By using pirate sites, users are also exposed to direct phishing. Some pirate sites contain only short pieces of content, offering the full content of a desired film or TV series allegedly available behind a paywall. In many cases, these are scams designed to trick users into paying for another, unrelated service or obtaining the details of payment cards.

The survey shows that half of the respondents are aware of the dangers of using pirate sites. Only one in five say that using pirate sites does not expose them to data or money theft or downloading of malware. The results differ between groups using only legitimate sources and those using pirate sites. Among the latter group, awareness of the risks is lower. In addition,

almost a quarter of them disagree with the statement that using pirate sites involves risks such as stealing data or money or downloading malware.



Figure 11 Awareness of cyber security risks associated with using pirate sites



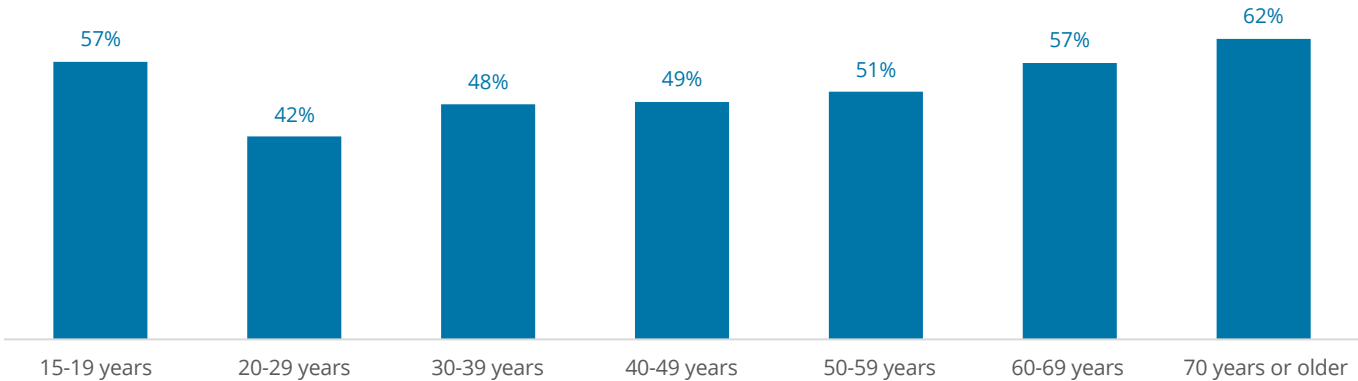
Source: Deloitte’s analysis based on user’s survey conducted for the report

Awareness of risks increases with the age of respondents, but also has high representation among teenagers. It is likely that young people who have grown up with technology from an early age have had more than one exposure to the dangers of the internet and are generally more knowledgeable about new technologies and the risks associated with them. Moreover, they have had the chance to receive the related education from their

parents and at school as a result of the current ubiquity of the internet, which older generations could not hope to receive. Awareness is the highest among the senior internet users. Most likely it is due to many campaigns aimed at the oldest age groups, which make them cognizant of dangers lurking in the internet, and combined with their life experience. This may indicate the effectiveness of social campaigns on

cyber-security aimed at the post-working age group, such as 'Seniors - let's meet online' implemented by, among others, the Ministry of Digitalisation. On the other hand, it may indicate lower confidence, resulting in increased caution, in new technologies among seniors, which is the result of limited knowledge about technologies in this population group.

Figure 12 Awareness of cyber security risks by age



Source: Deloitte’s analysis based on user’s survey conducted for the report



4. Scale of piracy of audiovisual content in Poland

To identify the extent of piracy on the analysed audiovisual content markets, a comprehensive opinion survey was conducted on a group of 1,500 internet users aged 16-74. The respondents were categorised as using pirate or legal sites based on their declarations regarding the sources of video on demand and live streaming consumption. The list of legal and illegal sites possible for the respondents to choose from was prepared based on recommendations received from the "Signal" Association.

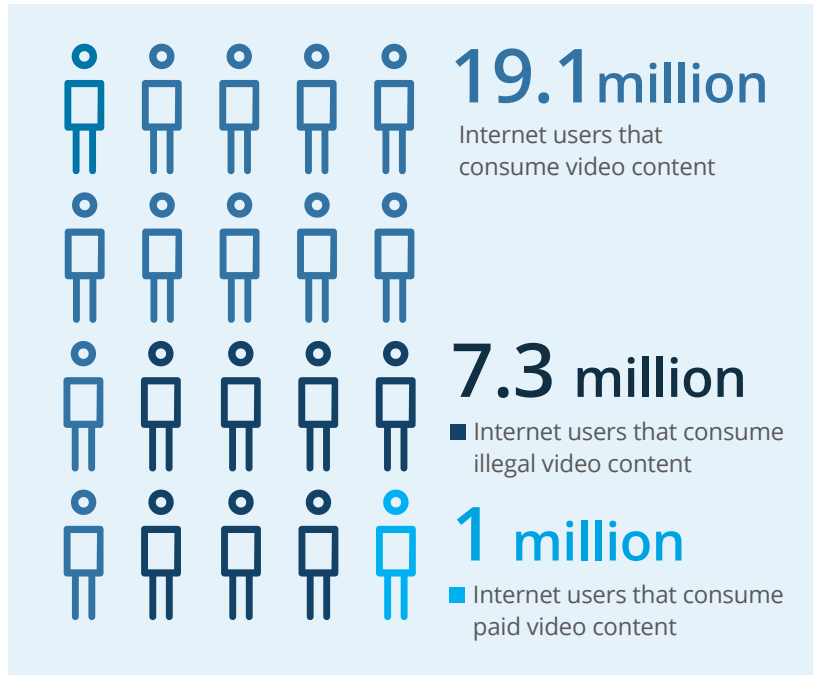
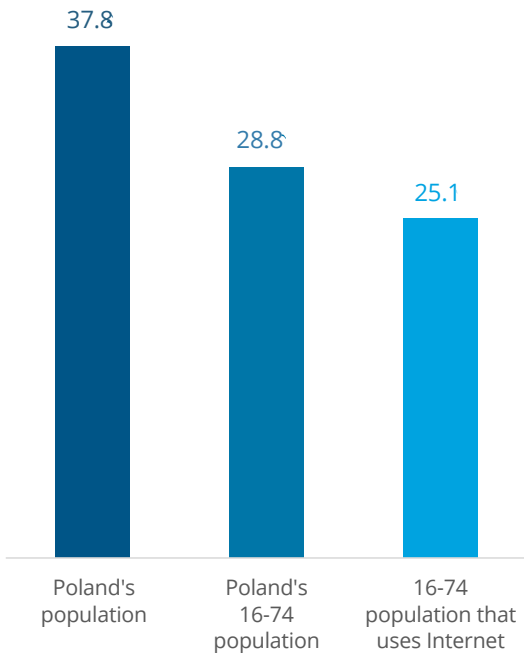
Scale of piracy of audiovisual content in Poland

More than 25 million people aged 16-74 in Poland are active internet users. This means that 87% of the Polish population in this age group use the internet regularly. Among them, 76% obtain video-on-demand content and one in three watches live streaming available online. Almost 40% of internet users visits sites offering illicit access to content, and 5% of them pay for it. However, it should be emphasised that the majority of them

do not abandon legal content and use both legal and illegal services for content consumption. The scale of consumption of audiovisual content from legal sources is high. 57% of those consuming video on demand content and as many as 94% of those watching live streaming use only legal sites.

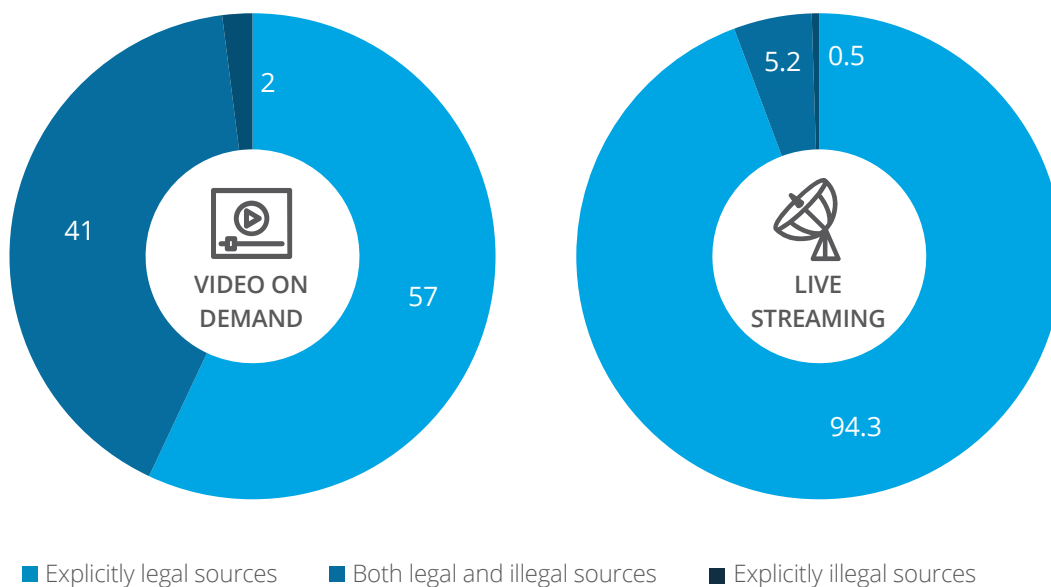
Figure 13 Number of pirate sites users compared to Poland's population (million)

Population data (million)

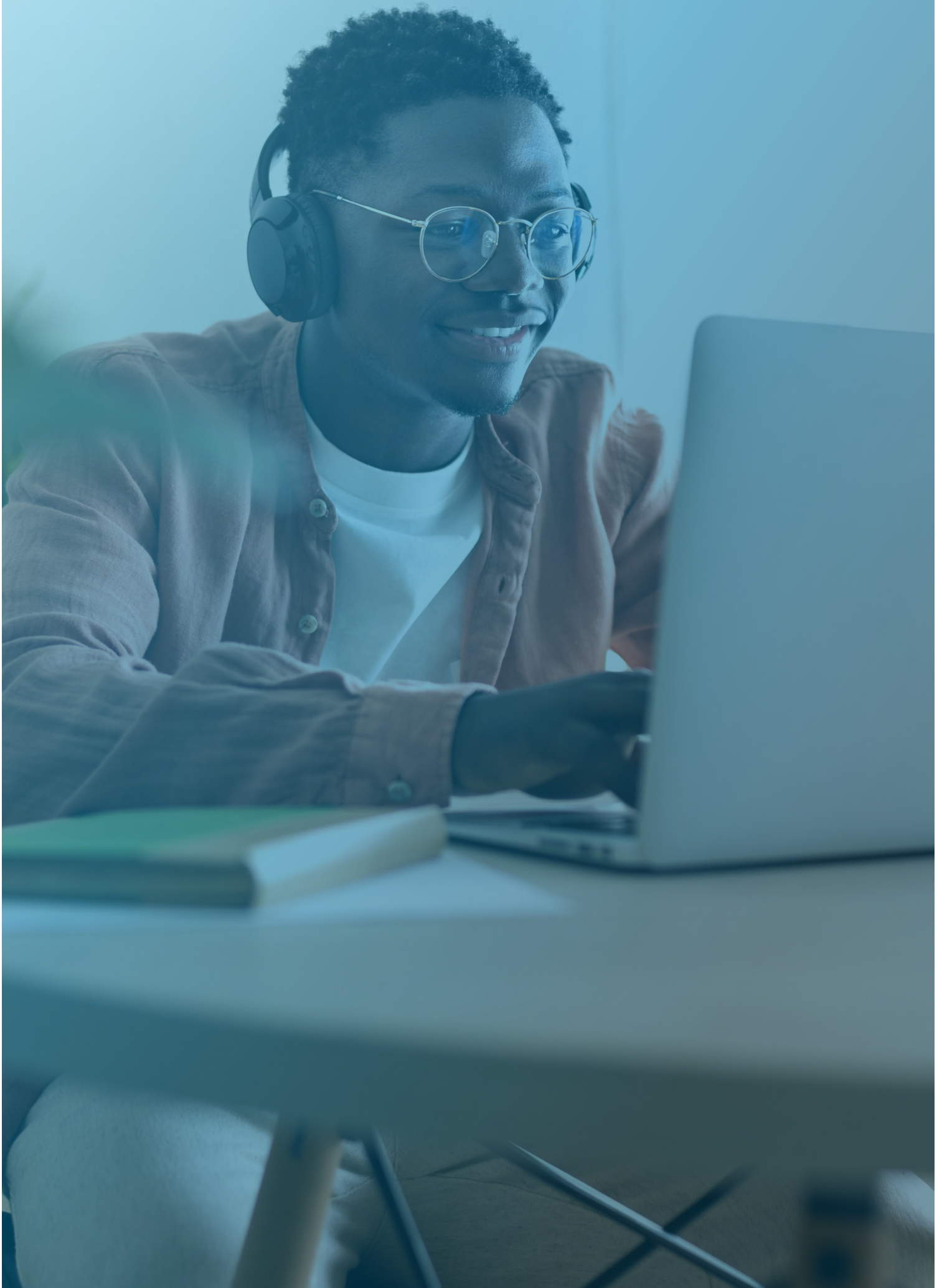


Source: Deloitte's analysis based on user's survey conducted for the report

Figure 14 Breakdown of users consuming content in the Internet by the legitimacy of the sites they visit [%]



Source: Deloitte's analysis based on user's survey conducted for the report



Scale of phenomenon 2016 vs 2023

Compared to the previous survey, the share of internet users in the total population of Poland increased. In absolute terms, the internet grew by one million users, while the size of the total population decreased. The legal VOD market has seen significant changes in its size. Over the past seven years, it has grown by nearly two-thirds to 19 million users from 11.4 million in 2016. Over the same period, the size of the live streaming market has remained almost unchanged. This dynamic is shaped by the factors described in earlier sections of the

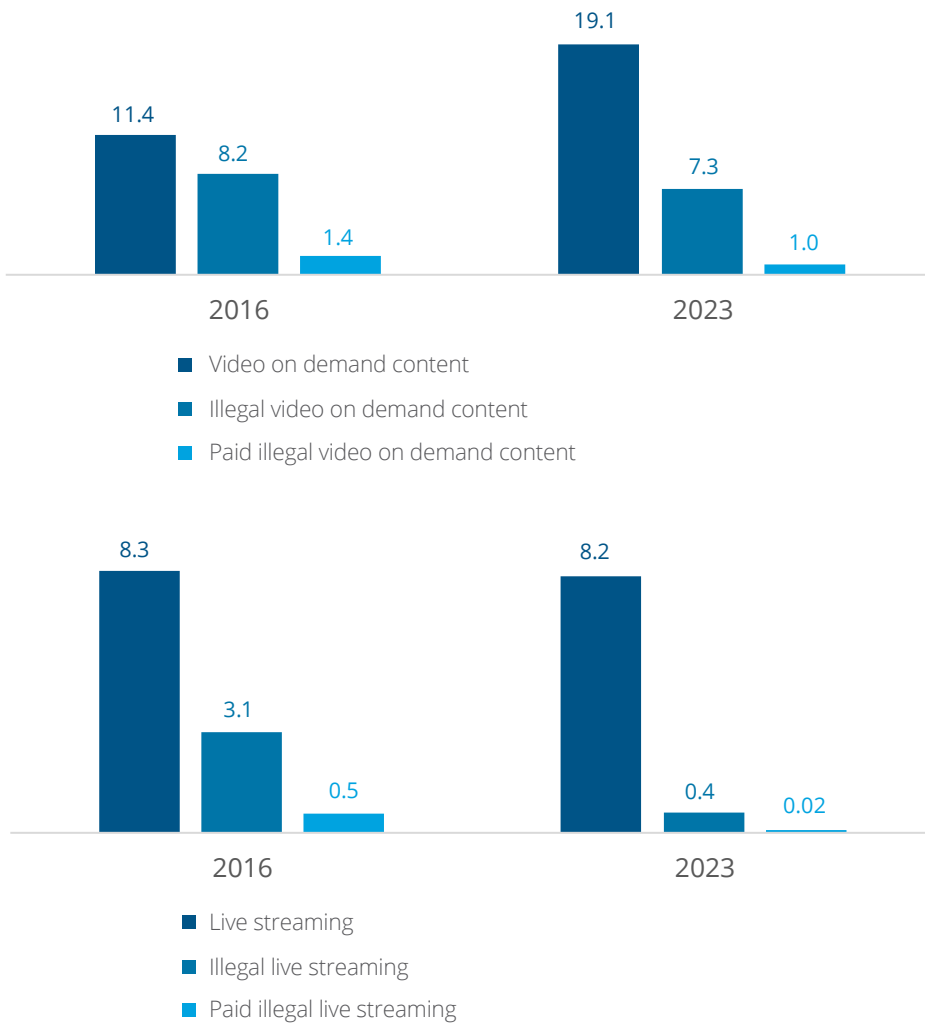
report, such as the COVID-19 pandemic, the entry of new players into the VOD market and the proliferation of short-form videos, to name but a few.

As recently as 2016, more than half of the internet users were visiting sites offering legal access to content. In the case of VOD, only 27% used exclusively legal sources, while live streaming accounted for 60%. Thus, an increase in the share of legal sites in the sources of audiovisual content consumption among Poles is clear.

Causes of changes in the absolute scale of piracy

Examining the scale of piracy based on the analysed pirate sites, against which various anti-piracy measures are being taken, it appears that the market for illegal video content and the market for illegal streaming has shrunk. In seven years, the user base of illegal VOD sites has shrunk by 900,000 users, a drop of around 11%, while the market for illegal live streaming has experienced a sort of collapse from 3.1 million to 400,000 users, meaning that the number of consumers accessing content via pirate channels has fallen by more than 85%.

Figure 15 Comparison of the size of the analysed markets with the previous survey (million)



The above-described dynamics of piracy market have several causes. Following the release of the previous edition of the piracy data report, broadcasters implemented a number of new and far-reaching methods to counter piracy. For example, legal action has been stepped up, which resulted in shutting down a number of major sites that offered illegal access to audiovisual content, thereby reducing the availability of primarily pirated content streamed live and potentially reclaiming some users by legitimate platforms. Moreover, the legal market has grown thanks to limiting access to pirated content. At the same time, follow the money policies, which have been applied for many years now, have made more difficult for pirates to make profits, which has discouraged the operators of closed sites, especially those with live streaming, from resuming operations.

For all visible successes in the fight against piracy affecting rightsholders, piracy in Poland still operates on a wide scale. Indeed, apart from the most well-known sites with millions of accesses, which were particularly analysed in the study, there are hundreds of smaller entities that escape the content protection mechanisms, and new ones are constantly emerging. It is because of highly perceived appeal of pirate activity compared to the risks, and for the rightsholders, the lack of tools to effectively combat piracy from a systemic perspective, such as blocking domains at ISP level.

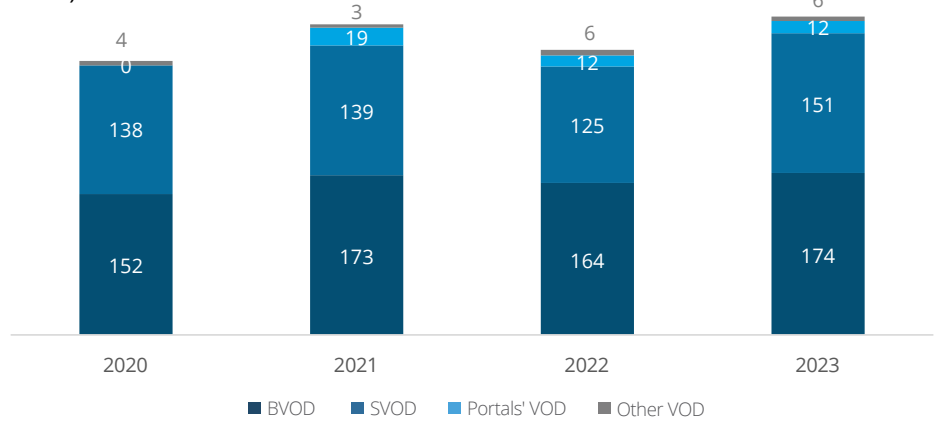
Source: Deloitte’s analysis based on user’s survey conducted for the report

It is also worth noting that the data analysed so far are of a declarative nature and the scale of consumption of content from illegal sources may be higher. It should also be noted that sourced content is often consumed by more than one person, especially in the case of downloading. Therefore, we may expect that the actual percentage of people using pirated content is higher than the declared one.

Traffic dynamics for pirate sites

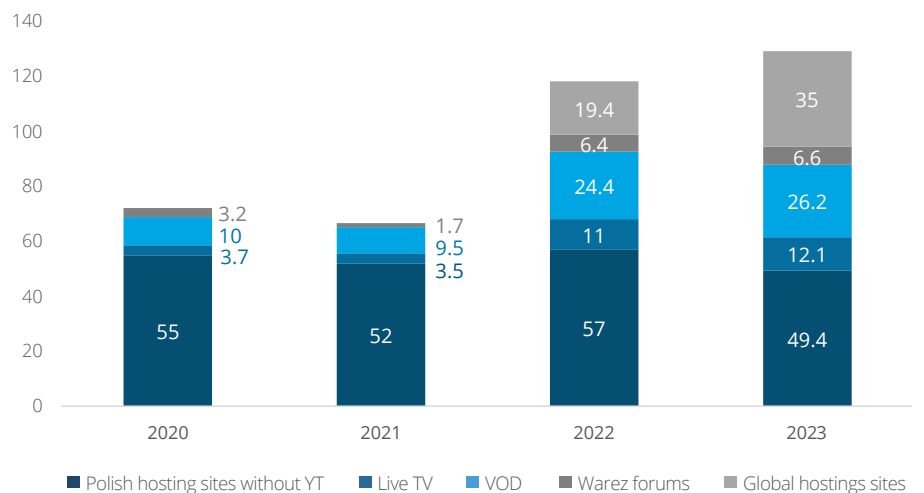
Comparing the data on visits to pirate sites with the data on VOD page views in Poland, it is apparent that the consumption of VOD content and live streaming on illegal sites constitutes a significant but non-dominant percentage of the audiovisual content market. This is in line with the consumer data presented in the previous points on the predominance of content consumption on legal sources and the decrease in the share of pirate sites in the total consumption of audiovisual content. However, the analysis of trends in terms of accesses to pirate sites by the Polish internet users indicates an increase in the consumption of illegal content. Between 2020 and 2023, the number of visits increased by 66%. It was due to quite low numbers of visits in the initial years of the analysed period, as many large and popular sites were closed at one time. This was in turn the result of proceedings lasting for years, which ended successfully at a similar point in time. In the following years, the average monthly visits to pirate sites skyrocketed. It was caused by new sites replacing previously closed ones, which is a common occurrence in the world of piracy. At the same time, an increase in the popularity of global hosting sites in the distribution of audiovisual content targeted at Polish audiences was seen. In previous years, this category was marginal to the extent that it was not included in the analyses. At present, together with the Polish hosting sites, it accounts for almost two-thirds of the total traffic generated on pirate sites by the Polish internet users. Even though the consumer base using pirate sites is decreasing, the scale of

Figure 16 Average monthly number of accesses to VOD platforms 2020-2023 (million views)



Source: Mediapanel PBI/Gemius 2020-2023

Figure 17 Visits to pirate sites originating from Poland (million)



Source: APP Global based on Similarweb

piracy in Poland is still considerable. What is more, visits to pirate sites are increasing with each analysed year. The combination of these two conclusions and taking into account the increase in consumption of legal content, shows that the intensity of audiovisual content consumption has changed. This translates into an increase in potential losses for the sector compared to the previous study.

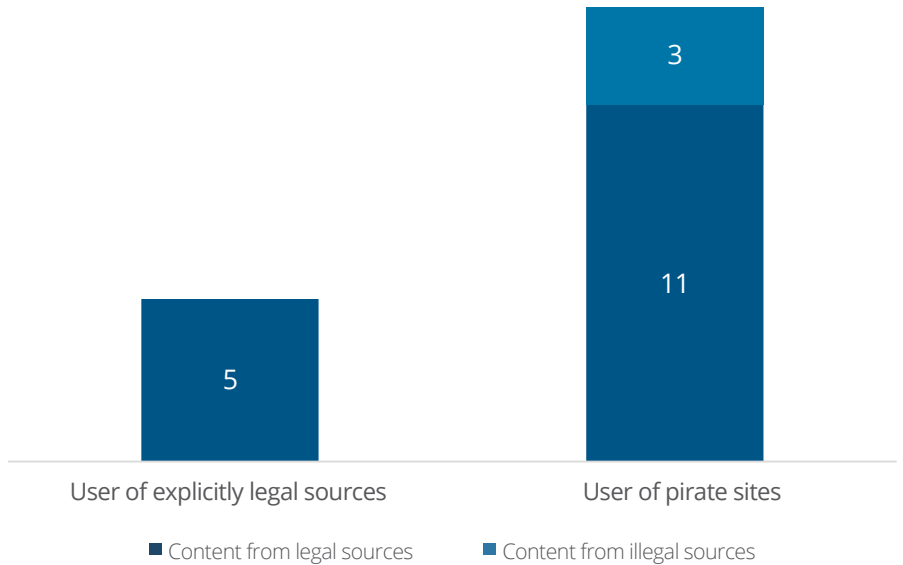
Intensity of audiovisual content consumption

Due to changes in the market and in society, not only has the percentage of people using the internet for entertainment increased, but also the intensity of audiovisual content consumption.

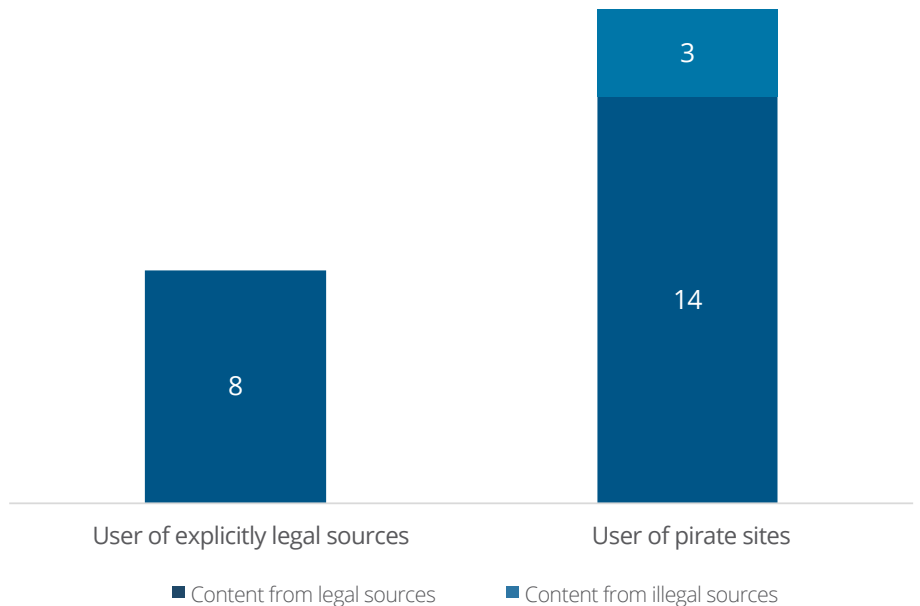
To describe the intensity of consumption of audiovisual content, the median - the middle value of a total range - was used, as it is a more appropriate measure to reflect the scale of the phenomenon. In the case of live streaming, the median is 6, and in the case of video, it is 11. This means that half of the content-consuming respondents watch at most 6 live streaming and 11 video on demand content per month and the other half watch more than these values.

Analysing the distribution of consumption of live streaming and video on demand by whether a user has pirated content in their consumption mix reveals a different consumption pattern among pirates of audiovisual works. They watch significantly more content - also on legal sites. While the median live streaming ratio for legal-only users is 5, for pirate consumption it is much higher, 11 for legal content and 3 for illegal content. In the case of video on demand, the consumption ratios are similar. This means that those who use pirate sites generally consume more audiovisual content. The intensity of consumption of legal content is also higher among users accessing pirate sites.

Figure 18 Consumption of live streaming by average user



Consumption of video on demand content by average user



Source: Deloitte's analysis based on user's survey conducted for the report



5. Revenues of pirate services

In the digital reality, prosecuting individual IP infringements is costly and has little effect. Instead of fighting end users, most affected companies pursue the perpetrators and organisers of infringements following the trail of financial flows. This is because illegal activities are encouraged by the opportunity of receiving high profits, without which pirate sites lose their *raison d'être*.

5.1 Sources of income of pirate sites

Pirate platforms make money primarily in two ways:

- **by generating advertising incomes using advertising intermediaries**
- **by offering subscriptions using payment intermediaries**

The above sources of revenue can be used simultaneously. Accordingly, there are three main monetisation models for piracy services:

1. **advertising model:** a service is free from a user's perspective while it makes money on running advertisement.
2. **subscription model:** a service is available upon payment of a fee
3. **hybrid model:** a service is combined with advertising but offers additional paid premium services such as turning off advertising, better quality, faster transfer, or no limits.

Advertisements on pirate sites

The analysis detailed the following:

- **performance advertising**, in which an advertiser pays for the effect

achieved, such as clicking on an advert, downloading the advertised application, or registering for an advertised site (e.g. online casino). This group also includes infecting a consumer's computer. Remuneration for the effect is higher than for other types of advertising, where the sites make money on views, and it is calculated based on a fixed rate per effect or as a percentage of turnover generated by the site's user who uses the advertised offer.

- **reach campaigns**, which are billed for the number of impressions, usually managed in programmatic mode by an external broker. In this case, site earns money based on the number of ad impressions, and the rate per one view is usually very low. As a result, to generate substantial revenue, the site on which the advertisement is placed needs to generate a high volume of impressions.

Pirate sites, to enable monetisation from advertising and to minimise their own responsibility and role in the process, make advertising space on their site available to external parties on a reselling basis.

To do this, they work with advertising networks created and managed by brokers at the level of integration of advertising scripts that control the display of advertising campaigns. Pirate sites can collaborate with one or more broker networks. Leading media houses that plan and purchase advertising campaigns on behalf of their clients are increasingly careful to eliminate pirate sites from media plans. There are, however, a number of global companies playing a prominent role in publishing ads on sites with illicit activity, mostly focusing on ads for products that could not be displayed in standard circulation, e.g. ads for drugs and medical supplies, gambling, pornographic sites or illegal services.

Payments on pirate platforms

A few pirate sites make money from payments made directly by users. They offer premium services, i.e. subscriptions offering temporary access to content or a better quality of use - e.g. turning off advertising on a site. Since they incur no costs related to acquiring a legal right to distribute content, the rates that consumers have to pay to pirate sites are lower than those of legal ones.

Receiving payments for pirate services is organised in cooperation with payment intermediaries, who accept illegal publishers as their clients. However, due to effective actions of the TV market whereby pirate sites were cut off from sources of funding, and cooperation with financial intermediaries, such as payment operators and aggregators, banks, Premium SMS operators, at present, the most frequently available methods of payment on such sites are the payments using universal codes available in stationary shops or online auctions, or payments in cryptocurrencies with the support of cryptocurrency exchanges. These forms of payment are difficult to trace, which is very desired in illegal activity. Payment intermediaries charge commissions of up to a few percent of the transaction value, which reduces the revenue generated by pirate sites. An analysis of the results of carried out survey shows that users who opt for paid access to pirate sites pay considerable amounts of money for them. People watching illegal live streaming spend on average PLN 30 per month on their consumption, while users of pirate portals offering video on demand pay on average PLN 26.54 per month. These amounts are comparable to the price of a monthly subscription of a legal streaming site or one PPV access.

5.2 Intermediaries used by pirate operations

In order to be able to provide services, pirate sites collaborate with a number of entities that provide various services necessary to operate on the internet. These are usually companies that are legally registered and operate ostensibly in a legitimate way. The previous chapter described the role of financial intermediaries: advertising and payment brokers. Further types of intermediaries used in pirate operations, who do not directly contribute to generating revenue, but who enable piracy sites to exist and operate through the services they provide, are described below.

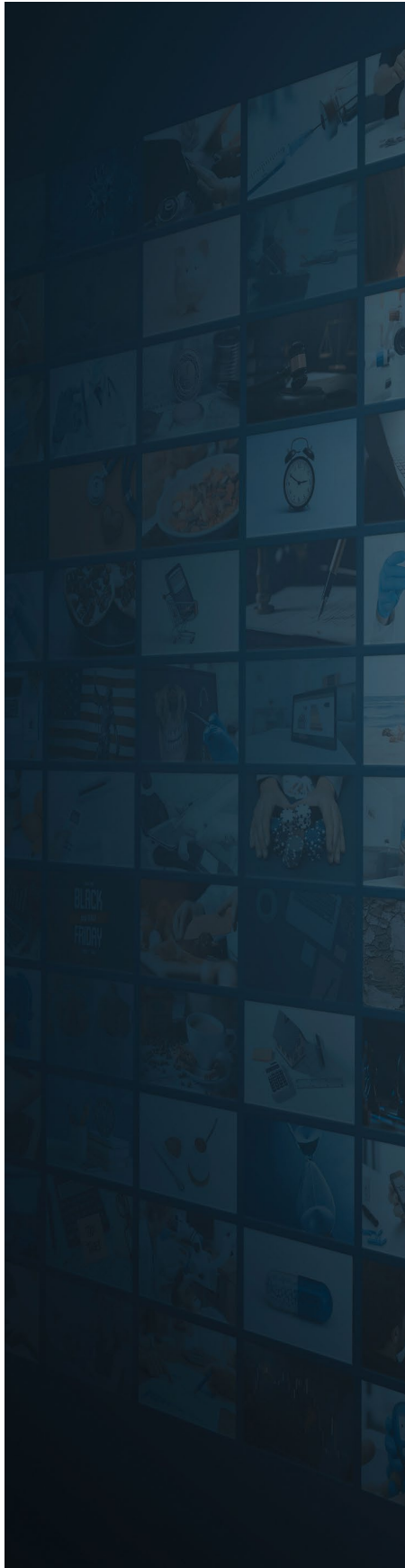
Domain registrars and server providers

Registrars are intermediaries who vendor internet addresses, so-called domains, with the help of which pirate sites operate and are recognised. Prices for the service vary depending on a domain and a specific service chosen by the registered site. The second key service is hosting of sites and content for a fee, often combined with earlier mentioned domain registration. However, a piracy site has a choice and may opt to host its site on the servers of another provider, for example one known in the community for its cooperation with other portals carrying out illicit activities.

Average monthly spending for illegal services declared by users



Source: Deloitte's analysis based on user's survey conducted for the report



This is an important intermediary from the point of view of the portal's functioning, as it provides the technical infrastructure needed to conduct pirate activity and is visible to the outside world - it can be expected that if a pirate publisher does not respond to demands to stop infringing, such demands will be directed to an intermediary.

Search Engines

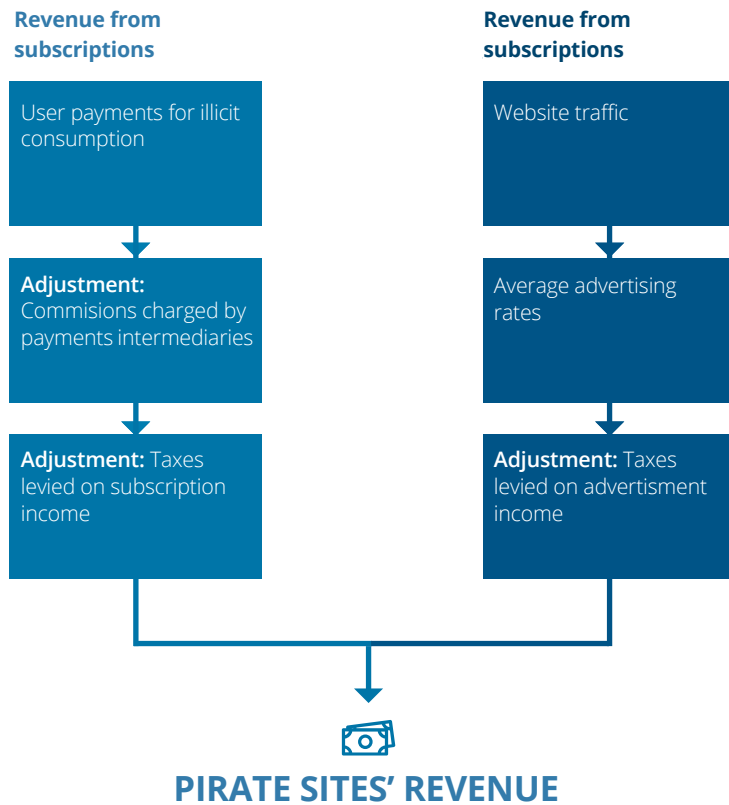
Consumers of pirated content find the content they are looking for directly by browsing pirate websites they know or using search engines. They are most efficient in helping consumers of audiovisual content to find films, TV series, or live streaming they are interested in, whether from legal or illegal sources. Very often, the internet users do not know where to look directly for the titles they are interested in. Thanks to search engines, users can learn about the sites and find out which of them offer the content they want. Search engines are therefore an important element of the pirate market because the users refer to them, for example, after a known site is closed, in search of alternative sources. Therefore, features such as positioning of pirate sites or suggested prompts very much influence where the traffic resulting from demand for content of all kinds, including audiovisual content, will be directed.

5.3 Annual revenues of pirate sites in Poland

As found in the analysis conducted for the purposes of this report, Poles spend PLN 322 million a year on pirate sites offering video on demand and live streaming. The estimated revenue generated by pirate sites amounts to PLN 355 million annually.

Nevertheless, this amount is not equivalent to the real annual earnings of piracy sites.

The revenues of piracy sites have been estimated based on the following assumptions:



Considering both streams of revenue, commission charged by payments intermediaries and taxation, estimated revenues of pirate websites amount to PLN 355 million, of which PLN 271 million is earned through subscriptions and PLN 84 million is advertising revenue.

Description of individual steps:

Based on the users' declarations regarding payments on pirate sites, number of users consuming paid illicit content was estimated. As the next step, this number was multiplied by average spending on the adequate type of piracy service.

1. Subtracting the value of taxes and commissions to payment operators from the total amount of payments made by users.
2. Estimating the average monthly traffic on pirate sites.
3. Identifying real average rates of advertising revenue depending on a content sharing model used by a site and, in combination with data on the daily number of visits to sites, estimating total advertising revenue.
4. Taking into account tax on revenue received from the provision of advertising space.
5. Summing up proceeds of pirate sites from user payments and from placing advertisements thereon, yielding an estimate of these portal's incomes generated from their use by Polish internet users.

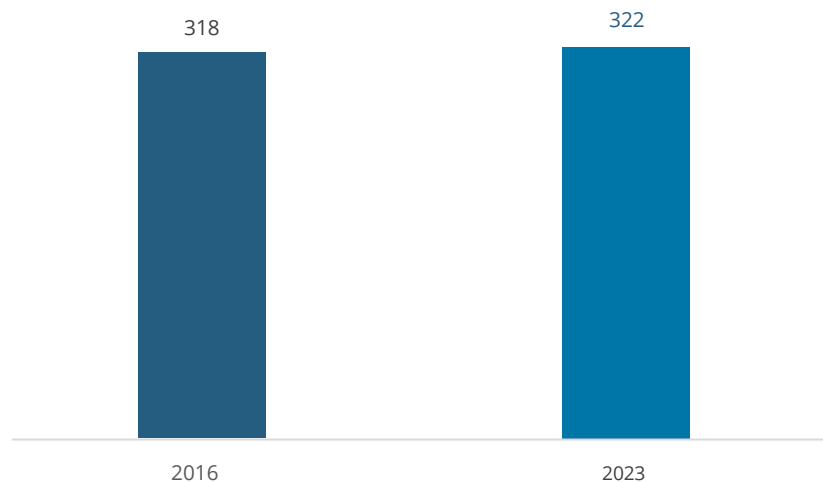
5.4 Size of piracy market in 2023 vs. 2016

According to the Deloitte's estimates made in 2017, in 2016 pirate sites from all analysed categories generated revenues of around PLN 745 million, and annual consumer spending on illegal video on demand and live streaming amounted to PLN 318 million. The revenue of pirated audiovisual content sites was estimated at PLN 263 million by analysing these sectors alone.

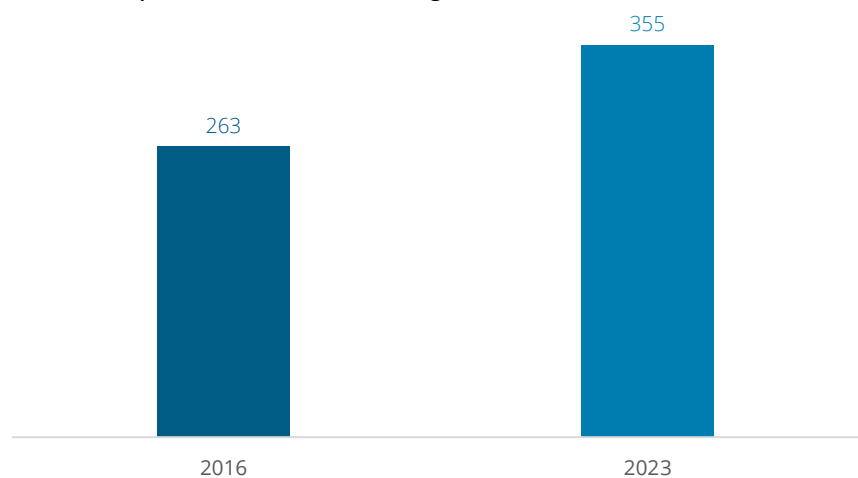
The below changes show the dynamics of growth in the value of the pirate market. Although total spending has increased by 1%, income has increased by around 35%. This is due to, among others, the change in payment intermediaries. A few years ago, SMS premium was the most popular form of payment. Such brokers charged a high commission of 50%, while, the cryptocurrency exchange, which are currently enjoying popularity charge a fee of 1% of a transaction value.

Figure 20 Comparison of spending on piracy sites and revenue of piracy sites in 2016 and at present

Total consumer's spending on pirated VOD and live streaming (PLN million)



Revenues of pirate VOD and live streaming sites (PLN million)



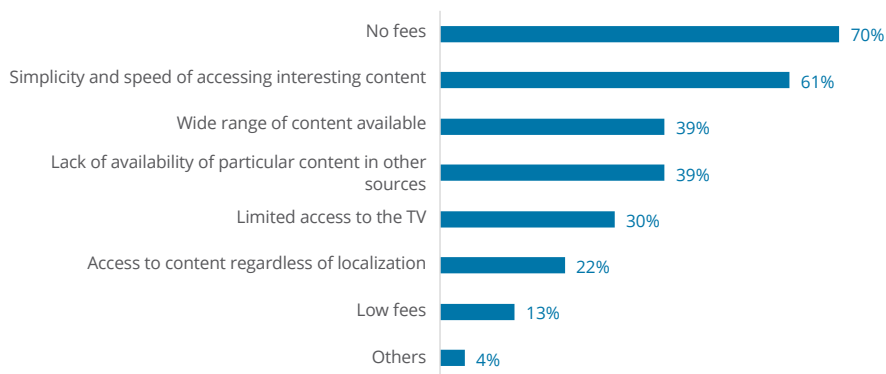
Source: Deloitte's analysis based on user's survey conducted for the report



6. Factors driving piracy in Poland

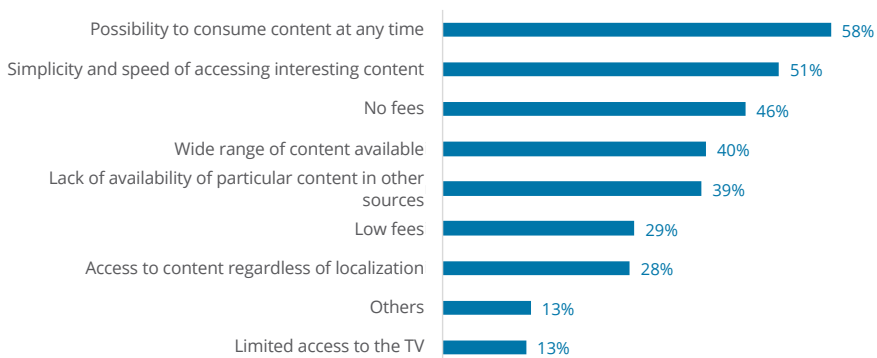
Users of pirate sites visit them and use them primarily because of low or lack of fees.

Figure 21 Reasons for using sites offering illegal access to live streaming



Source: Deloitte's analysis based on user's survey conducted for the report

Figure 22 Reasons for using sites offering illegal access to video on demand content



Source: Deloitte's analysis based on user's survey conducted for the report

The respondents are aware of the negative consequences of internet piracy. However, not for all of them it is good enough reason to opt out of the services that distribute illicit audiovisual content.

An analysis of causes why users choose content from illicit sources, as well as their perception of this practice, can help to make appropriate recommendations for solutions aimed at reducing the scale of piracy of video content and streaming.

Reasons for using sites offering illegal access to content

The results of the study indicate that the universal reasons for using sites offering illegal access to content are the ease and speed of reaching interesting content and no fees. Other factors largely depend on the type of content.

The respondents perceive pirate sites as the sites enabling them to access content they are interested in an easy and quick fashion. This was the second most important reason indicated by the viewers of illegal live streaming (61%) and by those using illegal VOD (51%). The most important reason for the first group is a lack of fees (70%), while it is the third most important reason for the video-on-demand viewers (46%).

It is worth looking at the individual results separately and comparing them to the corresponding 2017 survey.

- For live streaming, unavailability of content elsewhere and the wide range of offered content proved to be quite an important factor, cited by 39% of respondents using illegal streaming.
- For on-demand content, ability to consume content at any time was the most important reason for using these sites. It was indicated by 58% of respondents. Over the past six years, the reason of unavailability of content elsewhere (2017: 27%, 2023: 39%) and lower content fees (2017:10%, 2023: 29%) have gained in importance when choosing an illegal source over a legal one.

Reasons for selecting legitimate sites

The use of legitimate sites is encouraged by the high quality of content available there. Sites offering legal access to content may provide the highest possible quality, resulting in better experience for a consumer. The survey shows that this factor is valued by at least 37% of customers of legal sites.

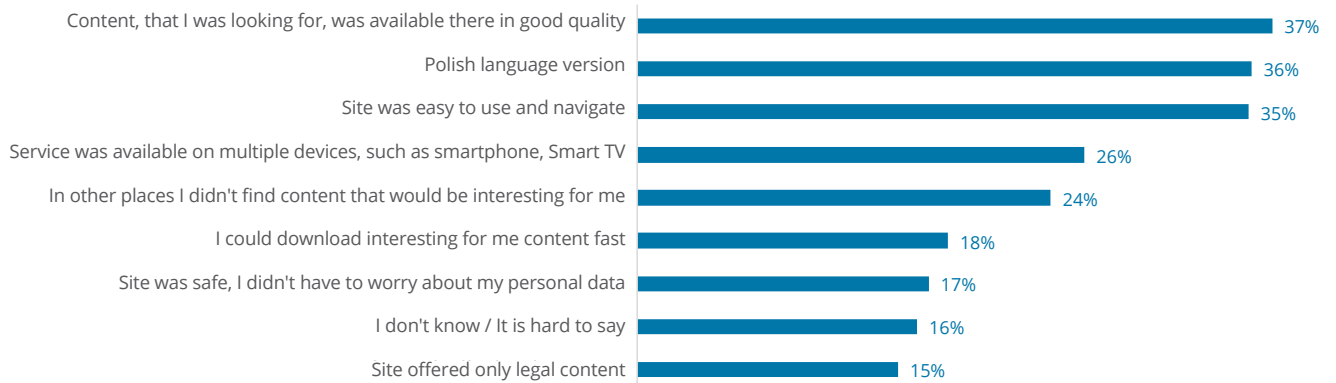
The Polish language version offered by legitimate sites is important to 36% of

respondents, as well as the ease of use (35%). Pirate sites are more burdensome to use, mainly due to copiousness of advertisements appearing there. In addition, only the original language version is usually offered, possibly with subtitles, the quality of which is often poor. On legal sites, most films and TV series have good quality subtitles, dubbing or a Polish voiceover. This is attractive especially among older respondents using foreign VOD sites. Less than 30% of users chose other factors, such as those related to accessibility on other devices, the offer, and capabilities of a site, as well as the legality of the content.

Perception of piracy

An analysis of the respondents' perceptions of piracy allows for more elaborated determination of reasons for reaching for pirate sources. According to the declarations, two thirds of the respondents use only legal sources. However, these results are not consistent with the actual use of sites. Indeed, there is a group of people using illegal sources of streaming and video declaring that they use only legal sources. These percentages for streaming and video are 57% and 59%, respectively. For those who actually use only legal sources, about a third is not so sure in their declarations. This indicates an ongoing problem with distinguishing between legal and illegal sources.

Figure 23 Reasons for using legal sites



Source: Deloitte's analysis based on user's survey conducted for the report

Indeed, willingness to use only legal sources of entertainment is present among the respondents. Half of the respondents said they would be prepared to abandon a site if they found out it offered illegal content. The percentage is higher among those using only legal sources. Those who watch video on demand and live streaming on pirate sites are less likely to switch sources if they found out that a site offers illegal content.

Figure 24 Declarations of using only legal sources

I use only legal sources on the internet

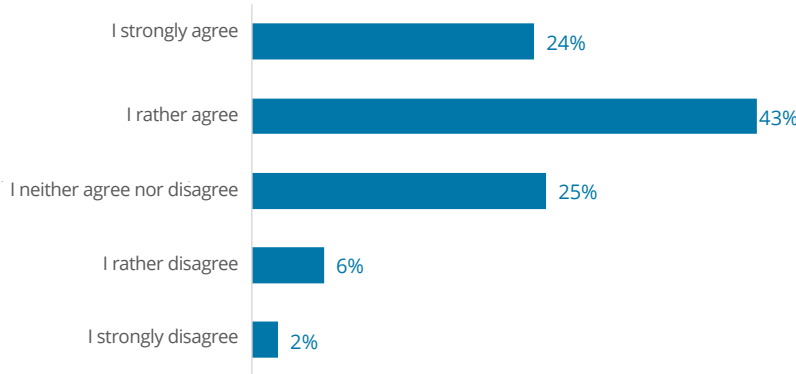


Figure 25 Declarations vs. actual use of illegal sources - Live Streaming

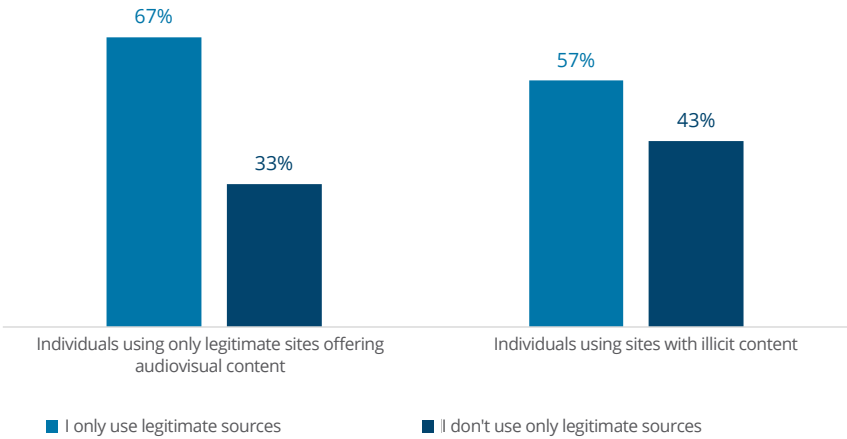
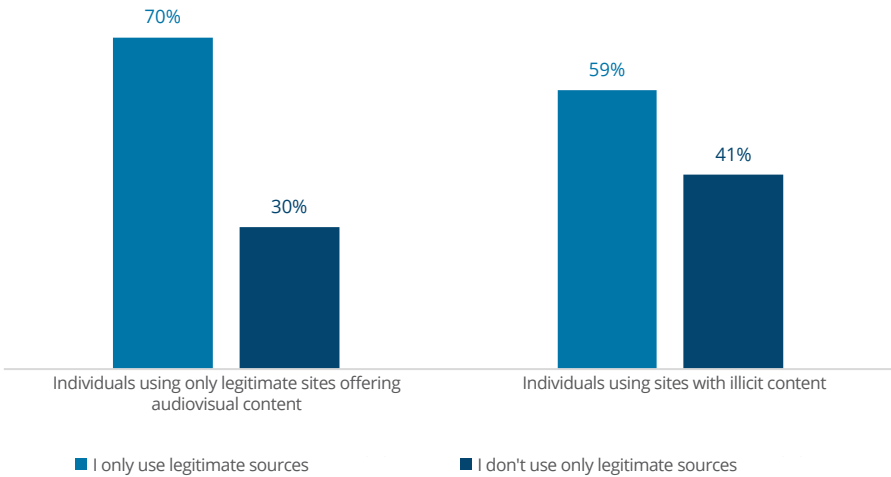
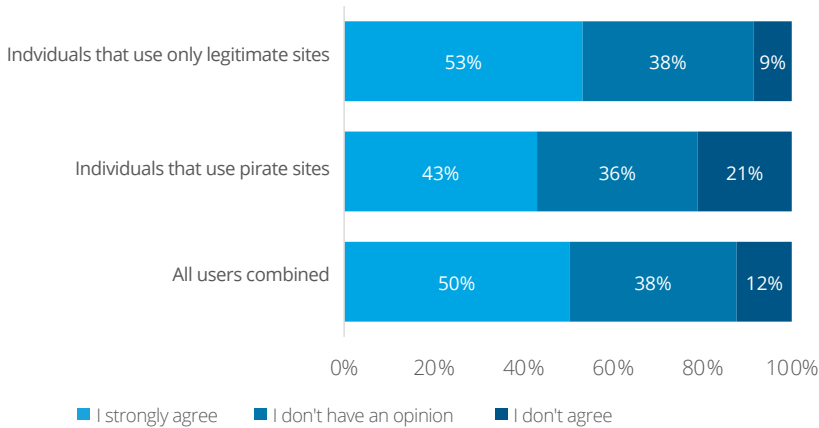


Figure 26 Declarations vs. actual use of illegal sources - Video on demand



Source: Deloitte's analysis based on user's survey conducted for the report

Figure 27 If I found out that the service I use offers illegal content I would stop using it



Source: Deloitte's analysis based on user's survey conducted for the report

Figure 28 What do you think about hosting and torrent sites? - results for the whole sample

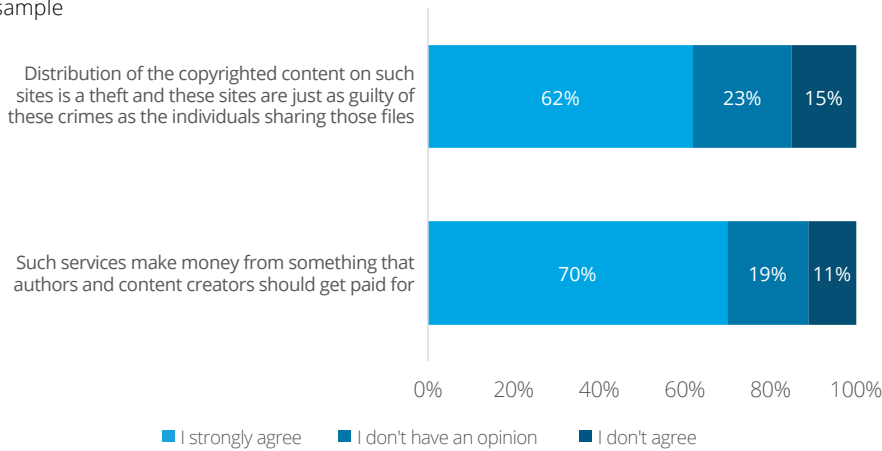
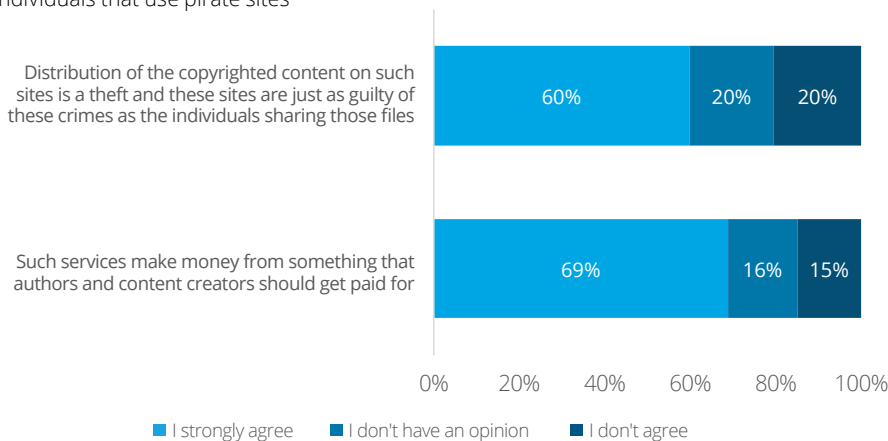


Figure 29 What do you think about hosting and torrent sites? - results among individuals that use pirate sites

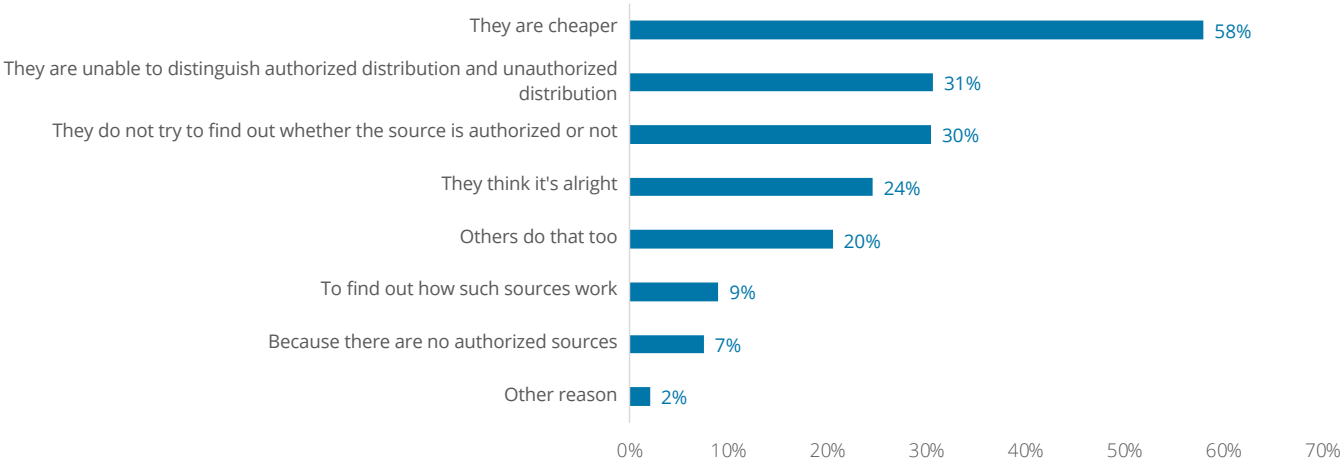


Source: Deloitte's analysis based on user's survey conducted for the report

The respondents know that pirate activities are harmful. Almost three quarters agree that the activities of hosting platforms and torrent sites make money for criminals instead of content creators, and almost two thirds (62%) agree that distributing content on such sites constitutes a theft of intellectual property. According to them, these sites, even though they theoretically have no control over content appearing there, should bear the same liability as the people distributing files. Moreover, those who use pirate sites also agree with the statement, although one in five disagree that the distribution of copyrighted content is a theft.

However, the negative attitude of respondents towards piracy does not make piracy to disappear. When asked why other people use sites offering illegal access to content, the respondents primarily cited price (58%). They believe that sites offering video on demand and live streaming illegally are cheaper than legal sources, which contributes to their greater appeal. The respondents also point to a lack of knowledge about authorised sources. 31% of respondents believe that those who use illegal sources do so unknowingly, as they are unable to distinguish between authorised and unauthorised distribution. Slightly fewer indicate ignorance - people use illegal sources because they do not try to find out if a source is authorised (30%).

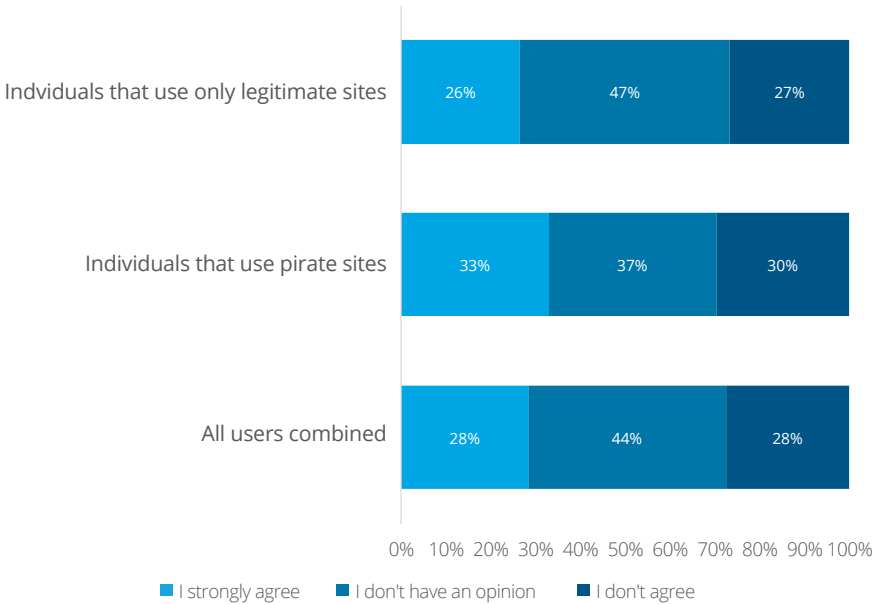
Figure 30 When people obtain content from unauthorized/illegal sources, why do you think they do it?



Source: Deloitte’s analysis based on user’s survey conducted for the report

An argument claiming lack of knowledge about the legality of the source is confirmed by the respondents' answers regarding payments. 28% of respondents believe that only sites offering legal access to content charge fees, which is not true. Furthermore, almost one in two respondents (44%) has no opinion on the subject, which may indicate lack of knowledge. A third of those who use pirate sites agree that only legal sites charge, but at the same time almost as many disagree with this statement. This shows that people who use and pay for pirate sites are either unaware of this or realise that they are paying for illegal access. There is a high level of tolerance among the internet users for the existence of pirate offers, such as hosting platforms and torrent sites. For many internet users, the mere existence of a site can prove that it is legal (47%). It is a fairly common belief among the respondents to consider torrent sites and hosting as services equivalent to public libraries (52% in the entire sample and 61% for those using pirated content), which justifies the use of these sources. The respondents also believe that there is nothing inappropriate in downloading video content from illegal sources if it cannot be obtained by other means (52% and 63% respectively). According to half of the respondents, there is also nothing inappropriate in sharing films and videos

Figure 31 Subjective reasons of content piracy - Only services offering legal content charge access fees



Source: Deloitte’s analysis based on user’s survey conducted for the report

because they are cultural goods (52% and 61% respectively). Furthermore, there is a belief that the activities of piracy platforms should not be curbed, as this restricts personal freedom (54% and 63% respectively). This tolerance is even higher in the group that actually uses pirate sources. More than half of them believe

that there is no reason to pay for content when it is available for free.

Figure 32 What do you think about hosting and torrent sites? - results in the whole sample

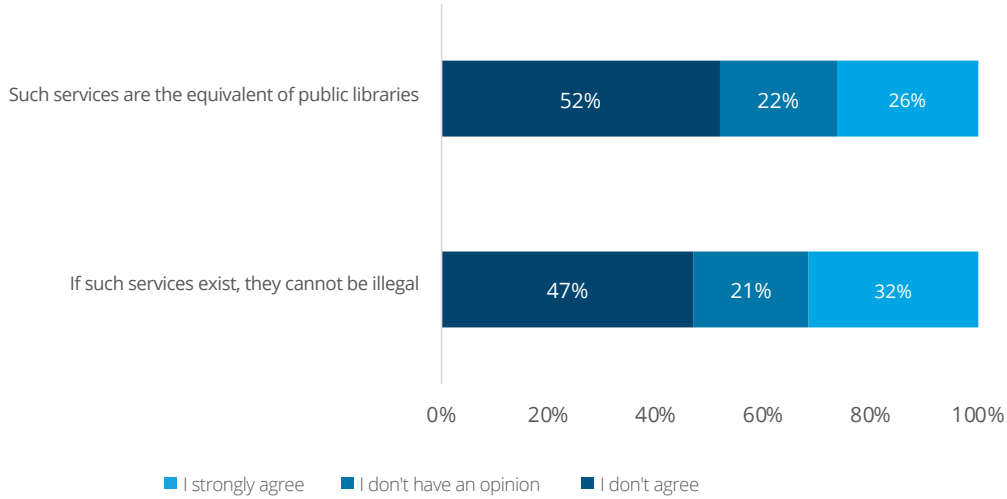


Figure 33 What do you think about hosting and torrent sites? - results among individuals that use pirate sites

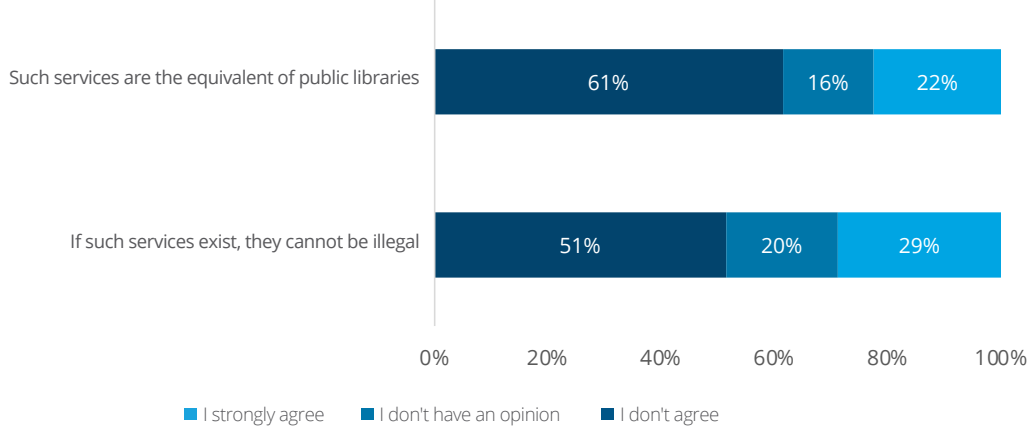
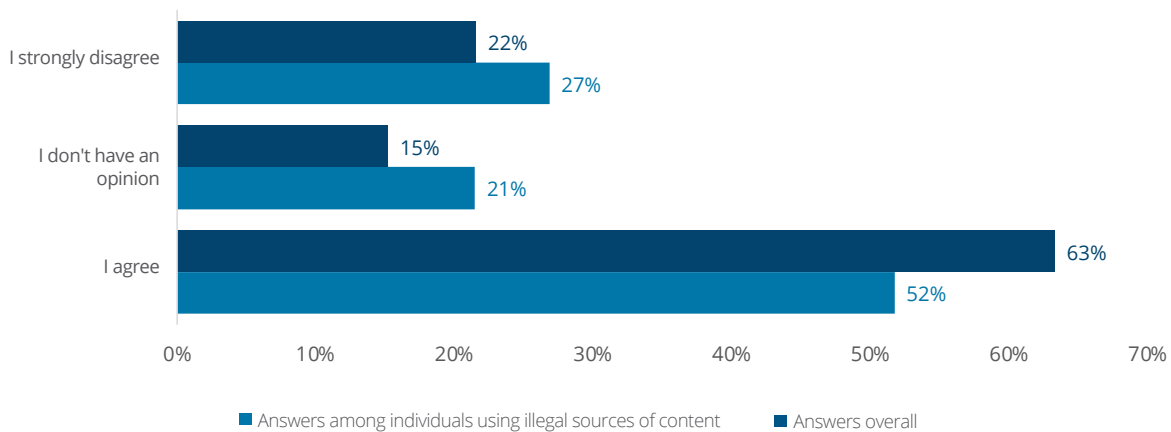


Figure 34 What do you think about hosting and torrent sites?- Individuals using pirate sources



Source: Deloitte's analysis based on user's survey conducted for the report

Figure 35 What do you think about hosting and torrent sites? - results on the whole sample

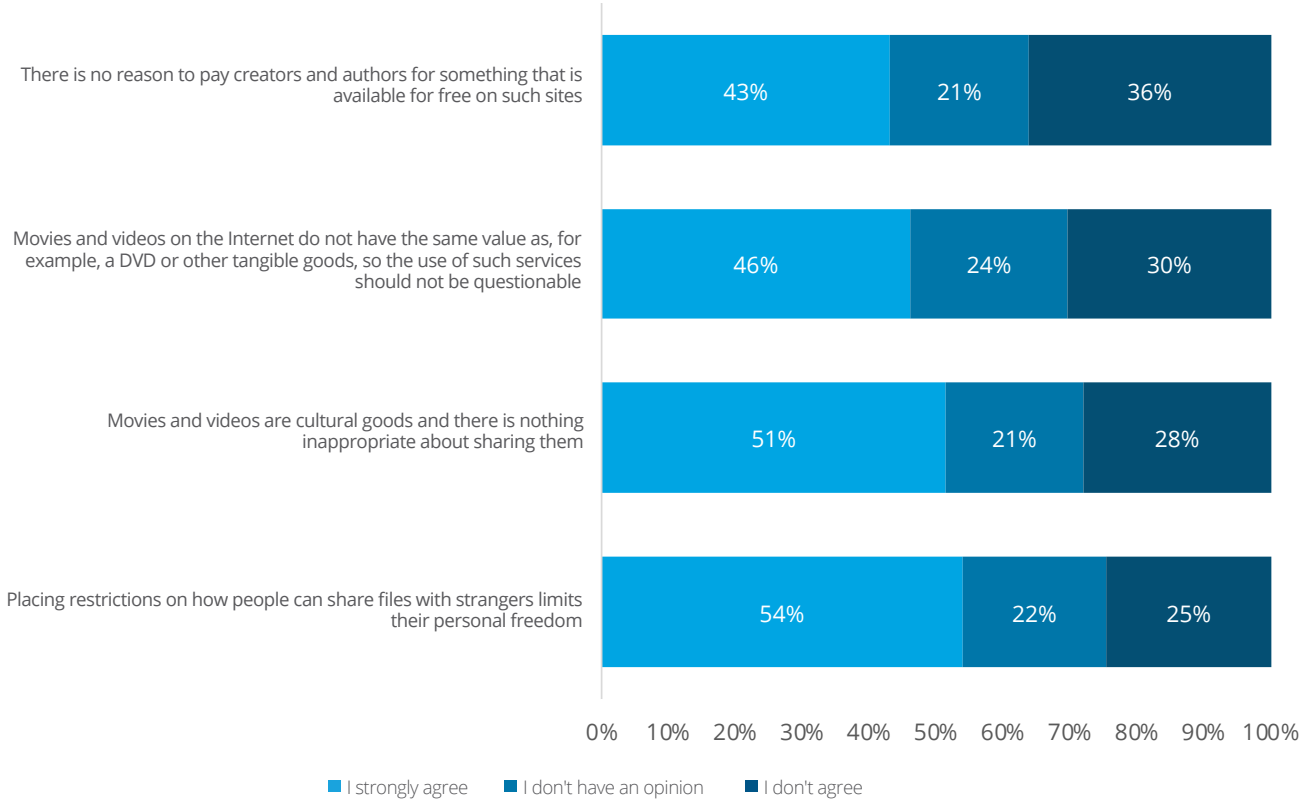
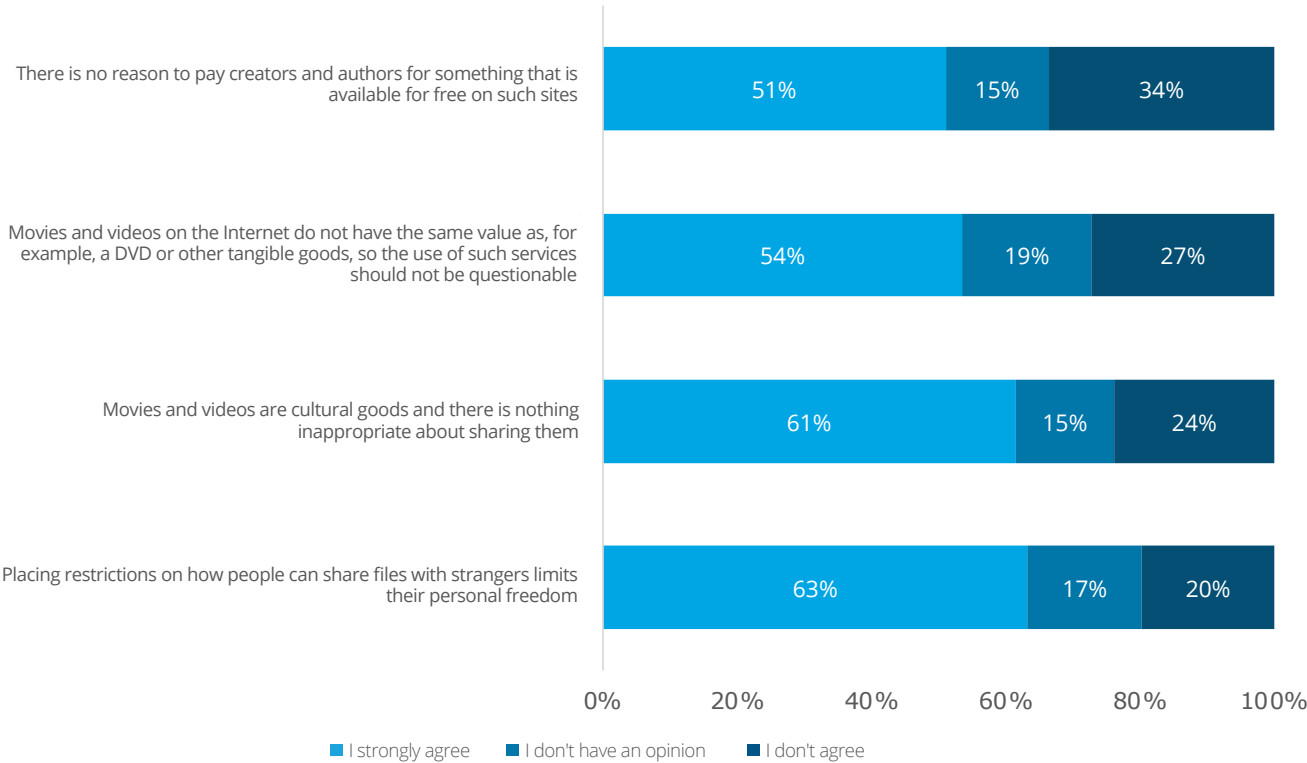
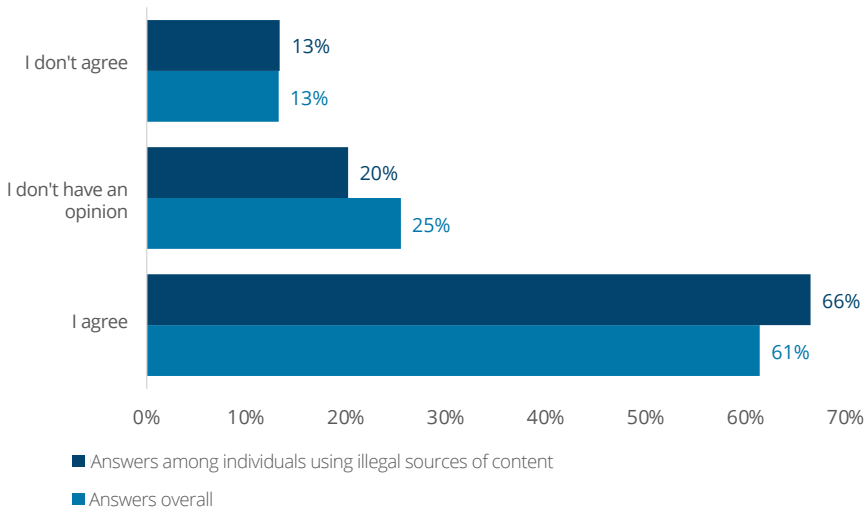


Figure 36 What do you think about hosting and torrent sites? - results among individuals who use pirate sites



Source: Deloitte’s analysis based on user’s survey conducted for the report

Figure 37 Unclear or inadequate legislation, such as on files sharing, can be ignored by such sites



Source: Deloitte's analysis based on user's survey conducted for the report

Figure 38 What do you think about hosting and torrent sites? - results in the whole sample

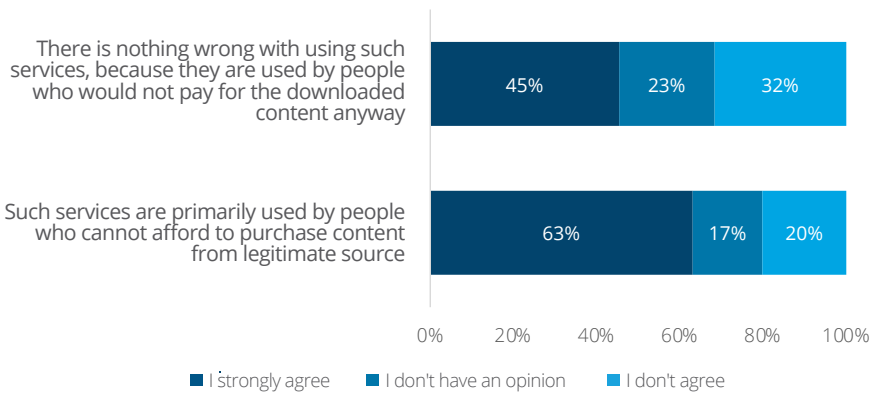
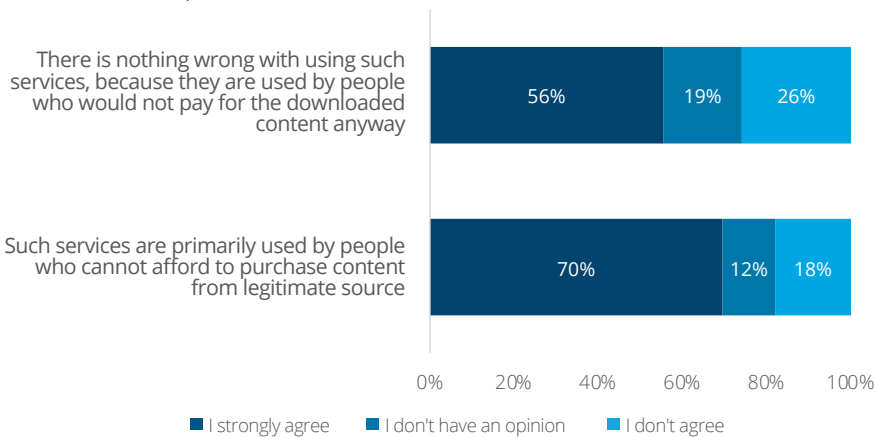


Figure 39 What do you think about hosting and torrent sites? - results among individuals who use pirate sites



Source: Deloitte's analysis based on user's survey conducted for the report

The current intellectual property law in Poland, which is not adjusted to the digital reality, contributes to the acceptance of piracy by society. 61% of respondents believe that unclear or inadequate laws, such as those on file sharing, can be ignored by pirate sources such as hosting platforms and torrent sites. Two-thirds of those using illegal sites agree with the above statement. Moreover, only a dozen percentage of the respondents disagree with the statement. This suggests that the current unclear state of law contributes to greater acceptance of piracy in Poland.

63% of respondents (70% for those using pirate sites) believe that such sources are primarily used by people who would not be able to afford to buy content legally. However, agreement with the statement saying that there is nothing wrong with using such sites because they are only used by people who would not pay for content they download is lower and stands at 46%. The percentage is higher among those who access illegal content. Among them, 56% of individuals agree with the statement.

Profile of a consumer of pirated content on the internet

The above analysis presents a picture of an individual who uses illegal sources to access content.

It is not possible to describe a group of internet pirates by their social and demographic profile. Although they are more likely to be young - half of customers of internet pirates are under 40 - there is no relation of piracy with gender, size of place they reside or education. Moreover, although one of the main reasons given for using illegal sources for content is price, income is not actually correlated with the inclination to use pirate sites. The median income among the surveyed group of internet pirates is even higher than among those using only legal sources of content. What primarily distinguishes those who use illegal access to content are their beliefs. They have more defined views and beliefs about piracy compared to the

group using only legal sources. They are also more likely to agree with statements that justify the use of content from illegal sources. A high percentage of agreement with statements, which attempt to justify a theft of intellectual property indicates the awareness of actions taken.

Factors influencing the piracy phenomenon globally

The phenomenon of digital piracy and its causes are being constantly analysed by experts from the world of science. Based on a meta-analysis, which synthesises the results of 177 empirical studies conducted in 36 countries, the following main groups of factors influencing the scale of piracy were identified:

GROUP OF FACTORS	DESCRIPTION
Psychographic factors	A person's lifestyle and personality reflecting individual differences in the way they think, feel, and behave, such as a propensity for risk, ethical consistency, or price sensitivity.
Moral factors	Ideology, beliefs, and moral attitudes of an individual person.
Experiences and possibilities	Personal experience with the use and sourcing of pirated and legal content.
Product factors	Product features, attachment to product originality, price and quality aspects of pirated and legal content.
Perceived effects	Ability to justify sourcing pirated content, subjective gains and losses from piracy, personal assessment of risks and losses to society due to piracy.
Piracy background	Influence of social consent and social norms, as well as existing legal environment on a decision to source pirated content.

7. Impact of piracy on the economy and the audiovisual industry

Sourcing content from illegal sites has a number of detrimental effects on the VoD and live streaming market, which indirectly affects the entire economy. In order to quantify the losses of the audiovisual content sector, the consumption of video on demand and live streaming from pirate sources was analysed.

Relationship between piracy activity and the audiovisual content market and the economy

The activities of pirate sites constitute unfair competition and a threat to legitimate providers of audiovisual content. Pirate operators offer a much wider library of films and TV series or live streaming services, which are available for free or for a significantly lower price than sites offering this content legally, while not incurring any expense involved in obtaining the rights or producing the content. This contributes to choosing illegal sites by some consumers, which reduces the potential for using legal sites. Such market behaviour results in reducing subscription revenue, as well as advertising revenue, which further contributes to the loss of potential revenue by legitimate content providers. Revenues are also reduced by financial outlays spent

on combating piracy. Currently, the entire burden of responsibility in this area lies with the rightsholders. In order to protect their intellectual property, they are forced to invest in anti-piracy activities internally or with external technologies. This places a financial and organisational burden on the companies providing legal video-on-demand and live-streaming services, to which the burden of protecting owned or licensed content is shifted.

Reduced revenue opportunities and higher operating costs resulting from piracy activities translate into lower income, which in turn leads to lower tax proceeds for the state budget and lower contributions paid to institutions such as the National Film Institute, which are calculated on the amount of revenue generated by companies offering streaming platforms.

The operation of piracy sites adversely affects creative activity. Piracy has the effect of undermining creativity and stunting the development of talent, skills, and knowledge in terms of quality and quantity. Decline in revenues of creators associated with illegal distribution of their content results in lower tax proceeds for the state budget and adversely affects the works created. Artists and entrepreneurs facing declining revenues devote less time and resources to the creation, dissemination and promotion and marketing of their works. This is reflected in a lower number of works created and reducing their quality, diversity and originality.

Piracy of audiovisual content in Poland make this sector less attractive for investing. A company considering entering the Polish market or an existing content provider making business decisions must take online piracy into account as a risk and factor reducing the potential return on investment. As a result, offering of the legitimate VOD and live streaming market is poorer, and prices are relatively higher than in countries where piracy is relatively less of a problem. There are increasing examples of international media companies pulling



out of investments in selected markets precisely because of inadequate content protection, public acceptance of theft and the high costs of anti-piracy activities.

Methodology for calculating losses of the sector resulting from the operation of pirate sites

Range estimating was used to estimate losses sustained by the audiovisual content market due to the existence of piracy. It enables the calculation of the scale with a high probability of capturing the real value of the impact of piracy activity on revenues of legitimate content providers.

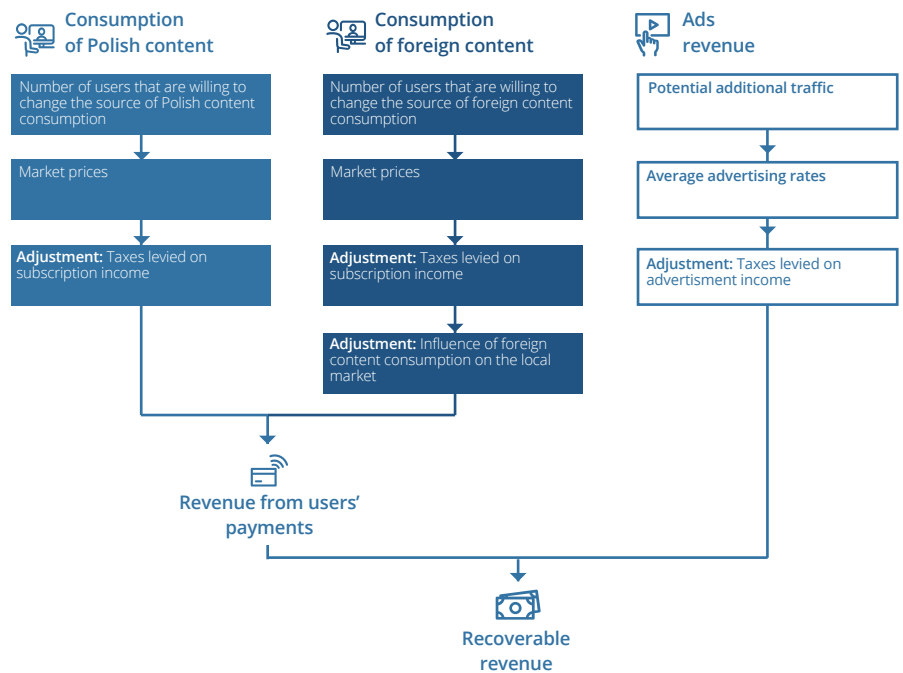
The estimates are based on the losses of the Polish audiovisual content sector resulting from consumption of Polish content on pirate sites and consumption of foreign content on sites directed to and received predominantly by persons residing in Poland.

The model includes four values:

1. Revenue of pirate sites.
2. Lost revenue possibly recoverable by the legitimate industry,
 - a. taking into account only those paying for pirated content and declaring a willingness to switch to a legal source (bottom limit).
 - b. taking into account all people using legal sites and declaring willingness to switch to a legal source (upper limit).
3. Potential added value for the legitimate market if the total spending on illegal consumption was transferred to legal consumption (total value of the illegal part of the audiovisual market). Stages of calculation of individual values:

1 Piracy sites' revenue – calculation methodology is presented in Chapter 55.

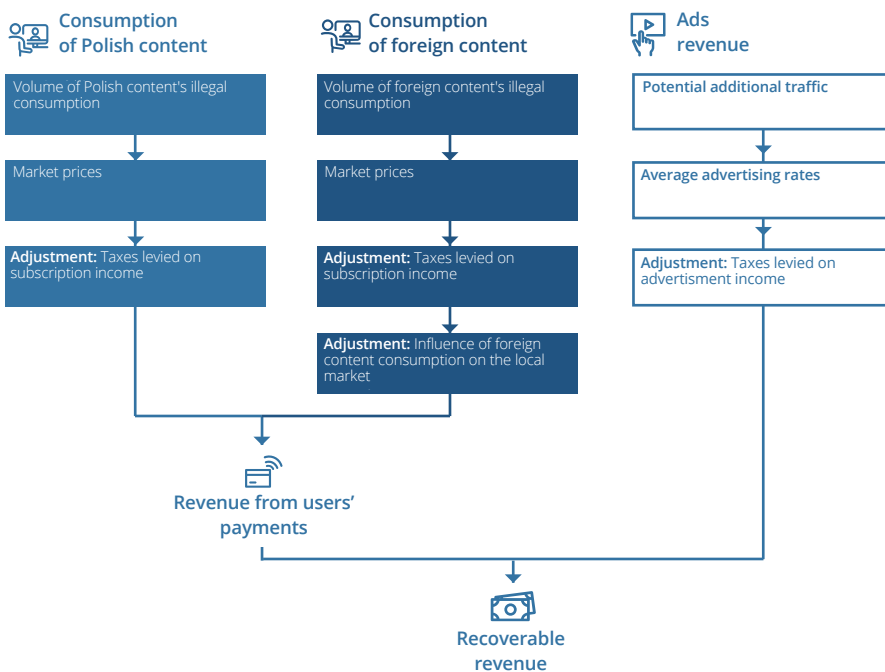
2 Recoverable revenue



DESCRIPTION OF INDIVIDUAL STEPS

1. Estimating the number of individuals in the population who pay for access to pirate sites (lower limit) and persons in the population who use illegal sources of access to content (upper limit) based on users' declarations concerning payments and use of pirate sites.
2. Estimating the number of users willing to change the source of consumption of Polish and foreign content based on users' declarations concerning the share of Polish productions in total consumption and their willingness to change the way they consume content when it is not available on a pirate site.
3. Multiplying the figures by the average market rates corresponding to legal content consumption.
4. Subtracting the value of taxes from the total amount of payments made by users.
5. Reducing the revenue from foreign content consumption by the outflow of consumption to foreign sources.
6. Adding together two amounts to obtain the recoverable revenue of the audiovisual content sector from user payments.
7. Estimating the average monthly traffic on pirate sites.
8. Identifying real average rates of advertising revenue and by combining it with data on the number of visits to the sites estimating the total advertising revenue.
9. Adding together the recoverable revenues from payments and additional advertising revenues from increased traffic on legitimate sites to arrive at recoverable revenues of video and streaming markets.

3 Value of illegal consumption



This is a theoretical value, showing the value of audiovisual content sourced illegally. The industry's losses are lower because the calculated amount does not take into account the willingness of consumers to switch from illegal consumption to legal one when content is not available from pirate sources.

DESCRIPTION OF INDIVIDUAL STEPS

1. Estimating the volume of consumption of Polish and foreign content in illegal distribution based on users' declarations concerning consumption on pirate sites,
2. Multiplying the volumes by average market rates corresponding to legal content consumption.
3. Deducting the value of taxes from the total amount of payments made by users
4. Reducing the value of illegal consumption of foreign content by the outflow of consumption to foreign sources.
5. Adding together two amounts to obtain the value of consumption of audiovisual content in pirate sources.
6. Estimating the average monthly traffic on pirate sites.
7. Identifying the real average rates of advertising revenue and combining it with data on the number of visits to the sites, estimating the total advertising revenue.
8. Summing up the value of consumption and the advertising revenue that could be generated from increased traffic on legal platforms, arriving at the total value of illegal consumption.

Impact of pirate sites on the video on demand and live streaming market

Estimates carried out in accordance with the methodology described above indicate several values that can be used to describe the financial scale of piracy in Poland:

- 1 Estimated revenue of pirate sites: :
about PLN 355 million
- 2 Lost and recoverable revenue of rightsholders:
 - Not less than **PLN 340 million**
(based on spending by individuals using pirate sources)
 - Maximum of **PLN 2.85 billion**
(based on declarations of individuals using pirate sources but willing to pay for legal ones)
- 3 Total value of consumption of audiovisual works from illegal sources:
about **PLN 7.36 billion**

Losses of audiovisual content market resulting from IPTV and card sharing

The above calculations take into account only the losses of the sector from online streaming, hosting and torrent sites.

However, this is not a complete picture

of the losses incurred by the video on demand and live streaming market as a result of piracy activity. The losses of the sector resulting from IPTV and card sharing are important part not included in the estimates.

The annual losses of the audiovisual content sector in Poland resulting from IPTV stand at slightly over PLN 110 million. The amount relates only to the subscription revenues of the sites offering the service - so this is the minimum value of losses incurred by the video on demand and live streaming market due to illegal distribution of their content via IPTV

According to estimates of satellite operators and cable networks operating in Poland, the total losses resulting from card sharing are valued at about PLN 7.5 million. It should be borne in mind that the above amounts are only an estimate supported by a small amount of data. However, the total impact on losses may be much higher, as these estimates are based only on identified incidents of theft and sharing of TV signals, without taking into account sites against which operators have not yet taken legal action. There is a lack of certainty in the sector as to the share of the detected cases in the total scale of the practice.

The quoted information reveals that an amount equal to or greater than about PLN 110 million (IPTV) + PLN 7.5 million (cardsharing) should be added to these estimates, generating losses to the sector of between PLN 455 million and PLN 3 billion.



8. Projection for economic impact of piracy 2023-2030

A projection for the scale of piracy and its impact on the economy between 2023 and 2030 has been prepared based on:

- 1 macroeconomic and structural factors,
- 2 industry factors and consumption patterns, and
- 3 microeconomic factors at the level of the video on demand and live streaming markets.

Methodology of calculation of projected losses

GDP dynamics

The current 2023 has seen economic slowdown in Poland and worldwide. Central banks are reducing demand in the economy by raising interest rates to bring it in line with supply and thus combat inflation. A rebound in gross domestic product is prognosticated already for 2024. The market analysts polled by the National Bank of Poland after Q1, forecast GDP growth at 0.8% in 2023, with a rebound to 2.9% in 2024 and 3.3% in 2025. However, there is much uncertainty in the economy related to persistence of inflation, also due to the election year, as well as risks in the global banking sector, energy markets,

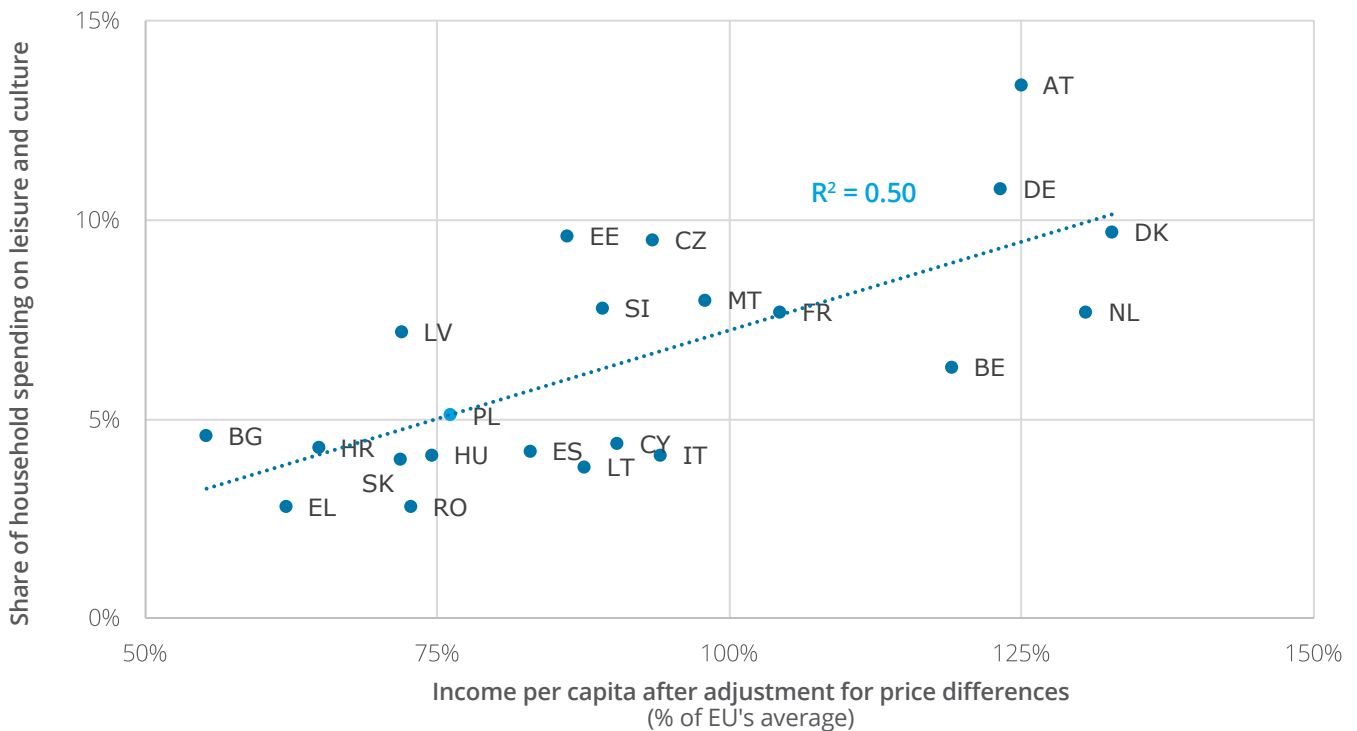
the Chinese economy, as well as geopolitical stability in the region and the Far East. Although the International Monetary Fund's forecast issued in October claims that Poland would manage to maintain 3% economic growth still in 2028, in the status quo scenario this will gradually slow down as the population ages and the economy approaches the global technological threshold. The extent to which immigration can reduce labour shortages and the rising costs of caring for the retirement-age population in the long term remains an open question.

Consumer spending

Galloping inflation outpaced wage growth in the second quarter of 2022. This decline in real wages translated into decelerating household consumption in the second half of 2022. Household consumption declined in real terms in the fourth quarter of 2022 compared with the same quarter of the previous year. The level of spending on culture and entertainment is clearly linked to household wealth and is likely to continue to increase in line with Poland's economic growth. At the level of the European Union Member States, the level of income per capita explained as much

as half of the differences in the share of household spending on leisure and culture in 2020. Poland still belongs to the poorer part of the EU Member States, which on the one hand translates into lower household spending on culture today, but on the other hand into greater potential for its growth in the future - as Poland grows faster as it is catching up with the Western Europe's standard of living.

Figure 35 Income per capita and household spending on leisure and culture in the EU in 2020 (Eurostat data)



Internet usage

According to data from the Polish Statistical Office (GUS) and Eurostat, the level of Internet access in Polish households in 2022 exceeded the EU average and amounted to 93.3% (vs. 92.5%). It is expected that the current level of internet access will remain unchanged or increase minimally in the next few years. Eurostat data shows that 86% of the Polish population use the internet at least once a week, while the EU average is 89%. The share of regular internet users in Polish

society is thus coming close to the EU level. This is a much higher percentage than predicted during the 2017 survey. The spread of the internet use in Poland was undoubtedly influenced by the coronavirus pandemic, which forced a faster transition to digital forms.

56% of Poles use the internet regularly to consume video content, compared to 61% in the EU countries. It is slightly lower than the European average but given the lower technological maturity of the population

and a less saturated market, it is relatively high. It is prognosticated to increase steadily and reach up to 65% in 2030.

Potential economic impact of piracy

Given the assumptions made with regard to technological, social and market trends, it can be expected that in the years 2023-2030 the average growth rate of piracy will amount to slightly over 1%. Although the dynamic is small, according to estimates, in 2030 the value of consumption of audiovisual works from illegal sources will increase by more than half a billion PLN compared to the current year.

It is projected that the total revenue of pirate sites in 2023-2030, assuming no additional measures are taken to reduce piracy of audiovisual content, will amount to PLN 2.9 billion. However, this amount only takes into account revenues from payments and advertising. The total hypothetical value of consumption of

audiovisual works from illegal sources for the years 2023-2030 with the assumed growth rate of piracy may reach over PLN 61 billion.

According to the assumptions, the rightsholders may be able to recover between PLN 2.8 billion and PLN 23.8 billion of revenue between 2023 and 2030. The discrepancy results from the fact that the actual scale of recoverable revenue depends on factors such as consumers' willingness to change their consumption patterns, actions taken by the industry to reduce piracy of audiovisual content, and changes in the legislation concerning infringement of intellectual property rights.

Projections of annual losses of the sector due to pirate websites (PLN million)

	2023	2024	2025	2026	2027	2028	2029	2030
Revenues of pirate sites	355	363	367	370	373	375	378	380
Lost but recoverable revenue of right holders	-	-	-	-	-	-	-	-
Lower limit	340	347	351	354	357	359	362	364
Upper limit	2,849	2,909	2,944	2,968	2,990	3,009	3,030	3,050
Value of consumption of audiovisual works from illegal sources	7,361	7,516	7,608	7,669	7,726	7,775	7,828	7,881

The projected dynamics of pirate consumption in the analysed markets is the product of projected dynamics of legal consumption and assumptions about the development of key economic, social, technological, and regulatory trends that may have a particularly strong impact on the demand for goods from illegal sources.

The table below presents the estimates of lost public levies due to the decrease of authorized entities' revenue and acquiring it by digital pirates. The figure was calculated based on the most possible range of

sector's losses that are possible to recover (from PLN 628 million to PLN 653 million) and with respect to the overall value of illicit audiovisual content consumption (PLN 7.36 billion).

	Potential losses of public levies - possible to recover		Maximal value of public levies' losses
	Amount of losses of audiovisual sector in Poland due to digital piracy		Value of illicit content in piracy sites consumption
	PLN 628 million	PLN 653 million	PLN 7.36 billion
CIT	PLN 108.1 million	↔ PLN 112.4 million	PLN 1.27 billion
VAT	PLN 50.2 million	↔ PLN 52.2 million	PLN 589 million
Total state's treasury	PLN 158.4 million	↔ PLN 164.7 million	PLN 1.86 billion
PFI	PLN 8.7 million	↔ PLN 9 million	PLN 101.5 million
Total losses of public tributes	PLN 167 million	↔ PLN 173.7 million	PLN 1.96 billion



Key trends

- 01. Ageing of the population** - this will increase the amount of leisure time that can be spent consuming video on demand and live streaming, both legal and illegal
- 02. Expansion of legal VoD and streaming markets** - rapid growth in legal VoD and live streaming platforms, makes legal content increasingly competitive compared to illegal content.
Rising household incomes increases spending on legal and illegal sources of video and streaming entertainment
- 03. Proliferation of mobile internet and falling prices for data transfers** increases consumption of video content (legal and illegal) outside home, increasing time spent on video on demand and live streaming platforms
- 04. Potential introduction of the notice and stay down policies proposed in the Copyright Directive** - it will make harder for pirates to operate as it will not be possible to upload illegal content to another URL
- 05. Development of digital literacy among the public** will result in increased awareness of risks related to piracy and a drop in consumption of content from unauthorised sources
- 06. Spread across Europe and the world of advanced methods of protecting copyrighted content**, including procedures for blocking pirate sites and illegal transmissions even within dozens of minutes at most



9. Combating piracy in Poland

The following chapter presents the state of law in Poland concerning piracy of audiovisual content, together with practical aspects from the perspective of individual market participants, both the affected parties and the operators of pirated sites.

9.1 Legal background

Recent years have brought rapid technological progress, which the legislation has not always been able to keep up with. There are legal regulations which aim to protect content and copyright holders on the internet. However, it should be emphasised that, to a large extent, these are EU regulations, with which Polish regulations are not fully compliant.

The fundamental acts of the European Union law which are relevant for the protection of intellectual property are as follows:

1. Directive 2000/31/EC of the European Parliament and of the Council of 8 June 2000 on certain legal aspects of information society services, in particular electronic commerce, in the Internal Market (Directive on electronic commerce).
2. Directive 2001/29/EC of the European Parliament and of the Council of 22 May 2001 on the harmonisation of certain aspects of copyright and related rights in the information society (InfoSoc Directive).
3. Directive 2004/48/EC of the European Parliament and of the Council of 29 April 2004 on the enforcement of intellectual property rights.
4. Directive 2019/790 of the European Parliament and of the Council of 17 April 2019 on copyright and related rights in the digital single market and amending Directives 96/9/EC and 2001/29/EC (Copyright Directive).

EU legislation is still not fully adjusted to the dynamically changing reality of the Internet, nonetheless over the years procedures have been introduced which increase the level of protection of rightsholders. Unfortunately, as a result of incomplete or sometimes flawed implementation of some of these procedures into the Polish legal order, at present both law enforcement agencies and rightsholders do not have sufficient tools to effectively act against parties undertaking or facilitating actions infringing copyright or related rights. First of all, Article 8.3 of Directive 2001/29/EC, which allows for blocking domains at the level of an Internet provider, has not been sufficiently implemented into

the Polish legal order. This is an effective mechanism, widely used to combat piracy in other countries, but not available under Polish law (there is still no relevant provision allowing for issuing blocking injunctions). Poland has also not fully implemented Articles 12, 14 and 15 of Directive 2000/31/EC, which would allow for holding the internet service providers legally liable for internet piracy. Since the law on providing services by electronic means (*ustawa o świadczeniu usług drogą elektroniczną - UŚUDE*) had entered into force, it has been widely commented that it modifies the conditions of liability of a hosting provider in a more favourable manner for a provider than allowed by Article 14 of e-Commerce Directive. The most recent of the discussed EU law, the Copyright Directive, is still awaiting implementation, even though the deadline for adoption of the relevant provision passed on 7 June 2021. Work on the draft of implementation is ongoing. Despite the indicated deficiencies in access to tools and legal solutions for rightsholders in Poland, the current legal environment has allowed for the



implementation of a notice and take down mechanism for removal of illegal content. This means that an entity notified that illegal content appeared on a website is obliged to remove the infringing content available under the reported link (internet address) subject to liability equal to that of a perpetrator. However, this procedure is not fully effective - the pirated film or TV series may reappear under a different URL. For this reason, pirate sites require constant monitoring by rightsholders in order to report content that infringes their rights. For obvious reasons, however, this is a very time-consuming, costly and sometimes ineffective. The problem has also been recognised by the EU legislator and the latest regulations also emphasise the prevention of such infringements in the future.

First of all, the notice and stay down mechanism has been proposed in the Copyright Directive (a new InfoSoc Directive) to address the above discussed problem. In short, once a harmed party reports pirated material, a site is obliged to stop the infringing content reappearing. The mechanism proposed in Article 17 of the Directive could effectively prevent the appearance of illegal material on the internet and, therefore, together with the explicit presumption that a service provider makes the work posted by its user available to the public, appears to be a key - from the perspective of rightsholders - change.

Despite the favourable to rightsholders changes in legislation of the European Union, the interests of individual market participants are still not fully balanced. Further and primarily faster development of legal regulations seems necessary. Thus, in October 2022, 112 organisations arranged a campaign called End Live Piracy Now calling the European Commission to take action to curb illegal streaming by legislative means. The European Commission committed to prepare a recommendation and a toolbox to propose instruments to combat piracy of event streaming. The document was promulgated a few months after the publication of the appeal, in May 2023.

9.2 Responses of internet pirates to legal circumstances

Internet pirates involve in circumventing actions and conscious non-compliance that impede the work of law enforcement agencies and the justice system. According to law on providing services by electronic means (*ustawa o świadczeniu usług drogą elektroniczną - UŚUDE*), every site should have contact details of administrators visible and available on the website. However, pirate sites notoriously fail to comply with these provisions - transparency of data of the internet pirates is low. Moreover, they take actions that make it difficult to identify them, for example by using sites that hide the IP address of an actual content host. It is also very common for sites to respond in theory to reports from legitimate users, but in practice pirated content reappears after a while. Also, the pirates often move their activities between companies so that it is more difficult to discover their identity. If detected, they move the activities between jurisdictions, which also allows them to avoid legal liability. In addition, the pirates locate their sites on servers in remote jurisdictions, such as Belize or the Marshall Islands to make proceedings more difficult.

Hence the popularity of .tv domain, the country domain of Tuvalu, or .to, the domain of the Tonga islands, among the pirate streaming platforms. However, pirate sites also regularly use servers located in nearby jurisdictions such as Russia, Ukraine, Latvia, but also in the Netherlands, France, Romania or Bulgaria. When detected, irrespective of the foreign location, law enforcement agencies find it difficult to cooperate with cross-border operators, which results in cases being either dropped or lasting for years, and during this time the pirate sites operate uninterrupted.

Nevertheless, in the event of detection by law enforcement, some internet pirates choose to cooperate with the justice system. This facilitates proceedings for the justice system and, on the other hand, may also benefit the accused, but does not mean that pirates escape punishment as a

result. However, penalty of imprisonment without suspension remains rare in piracy cases. Although, there are cases where the indicted founders of a site go to prison or receive a suspended sentence and the site itself is removed from the internet. It is also worth pointing out that it is becoming more and more common for the judicial authorities to award high amounts of damages to the wronged parties (the record amount is 47 million so far, awarded by sentence III K 65/20 District Court in Białystok, II AKa 18/21 Court of Appeal in Białystok).

A frequent scheme following the closure of a piracy site is to establish a new site in place of the closed one set up by the same or another person. In many cases, these are people who have been involved in piracy for a long time and who draw experience from previous failures. Owing to this, the degree of concealment and avoidance of liability for infringement is slowly increasing, and sites and their operators are becoming more difficult to prosecute.

9.3 Effectiveness of law enforcement agencies

The legal framework in Poland in theory provide law enforcement agencies with sufficient tools to combat the internet piracy. The problem of proceedings is their protractedness, which results, among others, from the described mechanisms implemented by infringing parties, such as moving their activity between jurisdictions or conducting it in a non-European country. Requesting data from foreign parties is a time-consuming process that prolongs proceedings.

In addition, the knowledge of how to deal with intellectual property infringement cases is not sufficient in all police and prosecution bodies. Also their nature mean that these cases have often lower priority for law enforcement agencies than, for example, theft from ATMs, card fraud, fraud on auction portals or cases against life or health. There are cases where people with the appropriate skills to handle these types of cases are not available in smaller police stations at lower ranks. When a case is reported to a provincial police station, there is a higher chance of success. Therefore, it is important to train law enforcement officers on prosecuting the internet piracy. A step which enables the knowledge to be passed down to lower-ranking units are projects such as an e-learning platform for police officers training in this area.

9.4 Follow the money

In order not only to combat, but also to prevent internet piracy, measures are being implemented on the initiative of the affected parties to make infringing activities more difficult and less attractive for business. According to the video and streaming community, they are needed because of the too lax Polish legal environment. As the main purpose of piracy activities is financial, measures are being taken to cut off piracy sites from sources of income. Methods of counteracting the internet piracy in the spirit of the follow the money concept involves blocking financial flows from advertising and blocking the possibility of paying for content on pirate sites. This is the most effective practice to accompany all other actions, both in the short and

long term. Central to the effectiveness of the measures is the willingness of the intermediaries to cooperate with those affected.

Blocking financial flows from advertising

The issue that the advertisers face is that they have limited knowledge of where their campaigns are placed and what the activities of individual publishers are. Therefore, in order to block advertising funding, it is important to make media houses, among others, aware far-reaching consequences of displaying their clients' advertisements on pirate sites and, if possible, to block cooperation with these illegal operators. A tool to control where advertising content is displayed is the table of reported infringements (so-called blacklist) coordinated by the "Signal" Association and provided to the Association's partners. By implementing ad blocking on blacklisted sites, pirate sites derive less financial revenue from advertising. Currently, a limited number of entities benefit from the possibility of displaying advertisements on pirate sites. Over several years, the number of ad impressions on these sites has fallen by about 20%, whereas legal market's scale has increased by 30%. Because of the limited pool of advertising available to pirate sites, they have limited revenue from advertising activity.

Blocking payments on pirate sites

Payment service providers are often unaware that the entity for which they provide services is engaged in illicit activities. Therefore, wronged entities enter into partnerships with banks, online payment operators and payment card providers. As a result, online pirates are forced to look for new payment options on the sites they operate. Current payment methods on illegal sites (e.g. cryptocurrencies) are becoming increasingly onerous for consumers. This makes it more likely that a customer will opt for a legitimate source that offers a convenient and secure payment system. Moreover, Polish internet users are distrustful of cryptocurrencies, which can lead to the user abandoning a source when they are not sure the site's legitimacy and did not intend to use pirate sites.

9.5 Actions taken by the affected entities

The entities harmed by the internet piracy take additional measures when their content is detected in unauthorised sources. The anti-piracy actions of the wronged parties include automatic activities, e.g. on sites with a formalised set of anti-piracy procedures, and manual programmes, such as monitoring sites to detect their live streaming or video on demand content on unauthorised sources. In the case of the latter, the first step is to report the content in question to the site's administrators. Under the notice and take down procedure, they are obliged to remove the infringing material available under the address in question. What's more, authorised content providers can also reach a settlement and cooperate with the platforms themselves that distribute pirated content. Such a solution was applied by the High League, a federation organising freak fights, which, probably with the agreement of the streaming platform Kick.com, efficiently removed illegal streaming of galas.

In the event of repeated appearance of content on a particular site or a lack of response from administrators, warning letters are sent by the harmed parties requesting the pirate site in question to cease operations. During this time, anti-piracy teams also engage in white intelligence to establish the identity of a perpetrator. This helps in the event of a legal action, as there is less chance of discontinuing proceedings due to failure to identify the perpetrator.

9.6 Activities of "Sygnał" Association

The mission of the "Signal" Association is to act in favour of intellectual property rights of broadcasters, distributors, licensors, recipients of TV programmes and other multimedia content. The Association was established in 2001.

The Association undertakes mainly educational activities, including the organisation of workshops and training courses on the protection of intellectual property and counteracting infringements of copyright for members of law enforcement agencies, i.e. the police or the prosecutor's office, for example. So far, the Association has organised around 300 such training courses for 25,000 people, e.g. police officers from Departments for Combating Economic Crime, prosecutors and police schools, as well as representatives of member companies. The Association also initiates educational campaigns and prepares reports and analyses, as well as participates in the process of implementing legal mechanisms related to its activities.

The Association has also initiated a campaign for advertisers and media houses focused on the follow the money strategy described above. The Association has collected infringements reported by member companies and also monitors display advertising on selected infringing sites. This provides a view of the scale of the problem over time.



10. Combating digital piracy in other countries

The approach applied to combat piracy of audiovisual content in other countries is an important inspiration in identifying effective solutions to combat digital piracy that can be implemented in Poland.

10.1 Blocking injunctions

The digital audiovisual market has been evolving rapidly for several years, and its pace accelerated in 2020 due to technological changes and also changes in consumer habits brought about by the global pandemic. The piracy market followed the legal audiovisual market in terms of changes in the forms of video on demand and live streaming access, payment models, patterns of cooperation with intermediaries and, to some extent, users' perceptions of piracy. And finally, these changes have been followed by those combating online piracy, both legitimate parties (individually or within industry institutions) and law enforcement agencies.

The application of regulations concerning protection of intellectual property rights in various countries and their enforcement in practice have shown in recent years that the most effective mechanism for combating digital piracy are the so-called blocking injunctions, now widely used both in EU countries and in many non-EU ones (the UK, Australia, Argentina, Brazil, Denmark, India, Indonesia, Singapore, Malaysia, Mexico, South Korea, Portugal, Turkey). Unfortunately, Poland remains among the countries where this tool hasn't been introduced, which in practice makes it impossible to fight piracy in many challenging cases.

Blocking injunctions are a tool, which is adapted to the specificity of illicit distribution of digital copyrighted content, where the internet intermediaries play an important role. By enabling the rapid and effective blocking of sites illegally providing digital content, they simultaneously provide mechanisms to protect against their use to censor online content.

A blocking injunction is a court decision requiring an internet intermediary to implement technical measures to prevent access to specific content or a specific website. This approach is characterised by the following features which make it highly effective:

- **No requirement to identify an infringer of copyright** – this is particularly important when there are very effective mechanisms to conceal the identity of online infringers and content is made available using intermediaries outside the European Union.
- **No requirement to adjudicate on the guilt of intermediaries** – issuing an injunction is independent of proving the guilt of an online intermediary, so for example a hosting site or a payment intermediary.

Based on the provisions under the European law, online intermediaries use provisions excluding their liability when their sites are used to share copyrighted content. In some cases, these provisions have been abused to avoid liability for making pirated content available. The decision to issue a blocking injunction is independent of the question of the guilt of an internet intermediary (this is not analysed), but only of the mere fact of sharing copyrighted content. Such an injunction is addressed to an internet provider and the possibility to block content is independent of the actions of an internet intermediary or a pirate making content available.

Three types of blocking injunctions are used in practice: static, dynamic and real-time blocking injunctions against live content.

Static injunctions are used against sites that have been set up to provide on-demand copyrighted content. Most often, in such cases, an offender cannot be identified or does not respond to notifications from rightsholders. In such a

situation, it is possible to block access to disputed content by the internet provider to whom this blocking injunction is addressed.

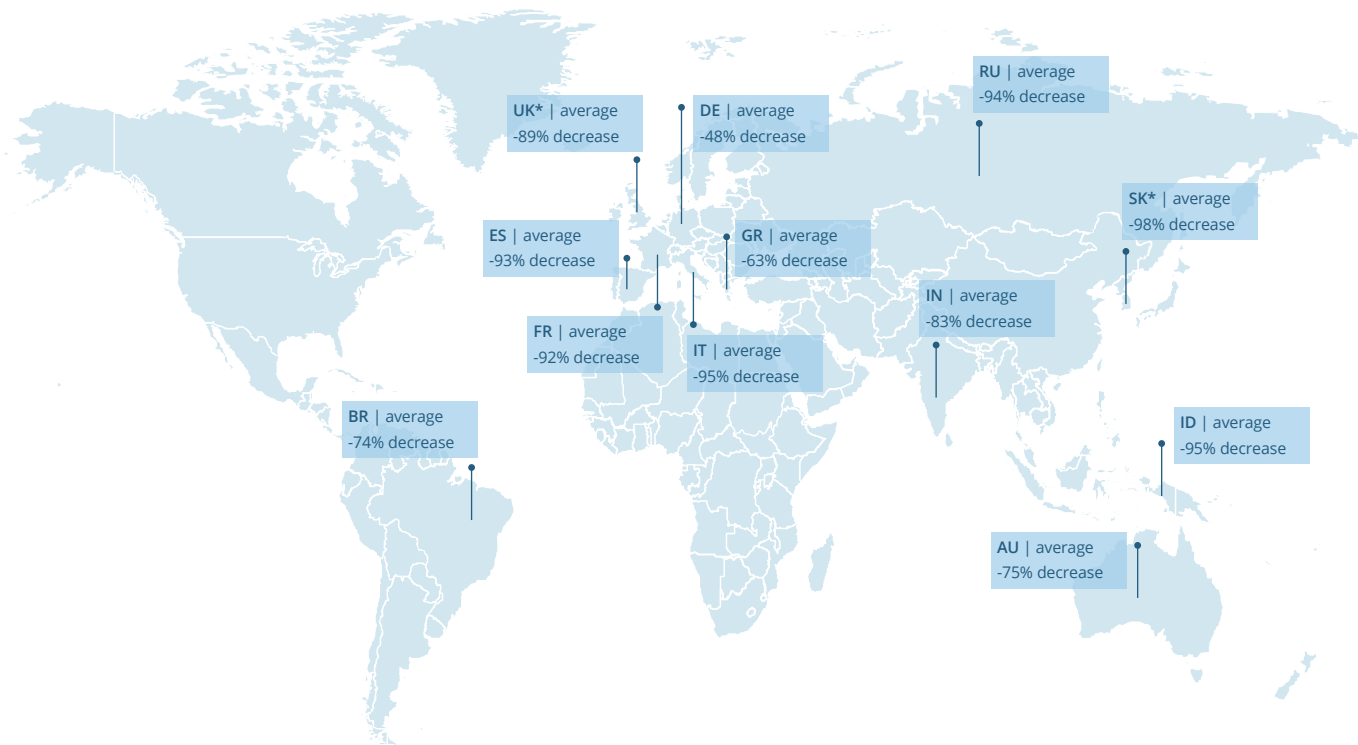
Dynamic injunctions are used in situations where the same content is made available repeatedly under a changed URL (usually using a domain directing to and associated with a previously closed website). Based on this type of injunction, rightsholders can, within a time limit set by the court, provide internet providers with a list of sites that should be blocked as a result of the injunction, without having to initiate new proceedings.

Real-time blocking injunctions applied to live content make it possible to block live streaming. This enables to block sites used for pirating of live streaming very quickly (mainly live streaming of sports events) for a strictly limited period of time, of which the rightsholder is obliged to inform the internet provider in advance.

The methods of combating internet piracy described above are based on cooperation between the rightsholders

and internet providers, reliant on a decision to block access to a given site or specific copyrighted content. This is therefore not dependent on the ability to contact, identify or cooperate with illegal providers of content or their intermediaries, i.e. entities that often cannot be identified or it is very costly to do so, who operate from territories where copyright protection is does not exist or is illusory, or who respond with a considerable delay, which is particularly relevant in the case of live streaming.

Data on attempts to access blocked sites in countries where blocking injunctions are used show high effectiveness of this tool. As the result of the implemented changes, there was an average decrease in traffic measured by the number of attempts by users to access sites blocked following a blocking injunction issued by a court, ranging from 48% in Germany to as much as 98% in South Korea.



Source: Deloitte's analysis based on the Sygnal Association's data

Legal basis for blocking injunctions

Law which made possible to issue blocking injunctions was introduced in Directive 2001/29/EC of the European Parliament and of the Council of 22 May 2001 on the harmonisation of certain aspects of copyright and related rights in the information society adopted in 2001.

“Member States shall ensure that right holders are in a position to apply for an injunction against intermediaries whose services are used by a third party to infringe a copyright or related right.”

10.2 Use cases and success stories

The fight against piracy varies greatly from country to country not only in terms of legal environment itself, but also its enforcement. The countries that have gone furthest in combating piracy are those that blocked pirate domains. These countries include the UK, Australia, Denmark and, more recently, Portugal, Brazil, and Uruguay.

Italy is another country most likely to join this group, where new legal mechanisms to combat the illicit distribution of copyrighted content are in the final stages of the legislative process. This mechanism will involve the Communications Authority (AGCOM), the National Cyber Security Agency, and the internet service providers themselves to combat piracy. The Communication Authority is to set up an automated platform to block web traffic to disable illegal sites. The platform is to respond very quickly - the blocking of a pirate site after positive verification is to take place within 30 minutes of such a case

being reported to the system, which will be possible through the use of technological solutions implemented for this purpose. To enable the system to be set up and maintained, stakeholders will have to pay a fee to AGCOM. The background to the introduction of the project was an IPSOS survey commissioned by the Federation for the Protection of the Audiovisual and Multimedia Industries (FAPAV), according to which during a three-year period from 2019 to 2021, piracy losses for Serie A alone (Italian equivalent of Ekstraklasa – Polish football league) amounted to one billion euros and the Italian government lost 319 million euros in tax revenue during this period.

Germany

German legislation imposing liability for contributing to infringement - Störerhaftung - has allowed ISPs to issue site-blocking injunctions.

Denmark

The code of conduct signed by the Danish ISPs for the implementation of blocking injunctions provides for:

- 1 Voluntary enforcement: an injunction against one ISP applies to all ISPs that are signatories to the agreement.
- 2 Judgments are enforced within 7 days.
- 3 No opposition to blocking injunction.

The Netherlands

The agreement between creators and ISPs on the implementation of blocking injunctions provides for:

- 1 Voluntary enforcement: an injunction against one ISP applies to all ISPs that are signatories to the agreement.
- 2 Judgments are enforced within 7 days.
- 3 The process takes approximately 1 year.

Sweden

In Sweden, rightsholders and ISPs operate under what is known as a non-opposition agreement:

- 1 Rightsholders file a motion for blocking and forward the draft motion to the ISPs, if it is clear, the ISPs do not object to the motion.
- 2 Legal proceedings take approximately 1 year.
- 3 Blocking of specific websites, blocking of new domain names within days.

11. Suggested solutions to the piracy problem

Piracy on the internet is multidimensional and its origins are complex. It may be curbed by both action in the business field and action relating to regulatory and legislative issues.

Suggested market solutions

Continued and widespread use of follow the money approach

Follow the money actions are the most effective method of combating internet piracy available in the Polish legal system. Cutting the internet pirates off from sources of revenue limits their activity on the internet, as they cannot fulfil their main objective, which is financial motivation. Therefore, it is desirable to continue the activities undertaken by legal providers and to expand the application of activities by:

- **Establishing further cooperation with advertisers and payment intermediaries** in order to expand the spectrum of actors cooperating with the legitimate market and further reduce the possibility of financing piracy of audiovisual content
- **Expanding the blacklist** coordinated by the "Signal" Association to include further copyright infringing sites.

Addressing consumer needs by legitimate broadcasters

Consumers of legitimate sites appreciate their high quality and the availability of a Polish language version, as well as the overall user experience. On the other hand, users of pirate sites use them because of the speed of access to interesting content and no fees. The legitimate market should follow the preferences of customers to create incentives for using their sites. The following actions are suggested:

- 1 **To continue the development of legal services** - content providers should focus on expanding the offer of available titles, ensuring the Polish language versions of content; in addition, the design of sites offering video on demand and live streaming should be improved so that the use of sites is as simple and intuitive as possible.
- 2 **To develop sites in the AVOD access model for people who cannot afford to pay for service**, this will increase the number of viewers who reach for pirated content when it is free of charge.
- 3 **To enrich the offer of platforms based on the subscription model with cheaper subscription options that include advertising**. Offering access to content in a combined AVOD and SVOD model at a lower price than a basic subscription without advertising will encourage people with smaller budgets to subscribe to a legitimate service.
- 4 **To integrate the offers of different services to increase the attractiveness of the legal offer in the eyes of customers**. Offering several streaming services in a bundle at a lower price than the sum of separate subscriptions will induce customers to use more legitimate sites as they will have a lower total price and wide offering.

Suggested systemic solutions

Improving the effectiveness of law enforcement in intellectual property infringement cases

IP infringement cases are not treated with sufficient gravity by law enforcement agencies, whereas it is a theft causing financial loss just as much as theft of tangible goods. The priority of intellectual property infringement cases needs to be increased, as in the current framework internet pirates have too much time to prepare to respond to law enforcement action. It is important to continue to educate the Police and the Public Prosecutor's Office on intellectual property rights by providing training courses and access to knowledge. This will improve the work of Police, as the procedures for dealing with cases of content piracy will be widely known. Moreover, once the Prosecutor's Office has the knowledge on the specific character of the industry and the phenomenon of piracy of audio-visual content, it will facilitate court proceedings and ensure more adequate judgements as the problem related to theft of digital content will be better understood.

Implementation into Polish law the provisions set forth in European regulations

- 1 Directive 2000/31/EC on electronic commerce.
- 2 Directive 2004/48/EC on the enforcement of intellectual property rights.
- 3 Directive 2019/790 of the European Parliament and of the Council of 17 April 2019 on copyright and related rights in the digital single market and amending Directives 96/9/EC and 2001/29/EC (Copyright Directive), in particular the enforcement of Article 8.3 concerning the implementation of blocking injunctions.

Full implementation of provisions stemming from the listed above directives into the Polish legal order will allow the law enforcement agencies to undertake effective activities against entities conducting or facilitating activities which infringe copyright or related rights. Introduction of relevant provisions will translate into quicker resolution of cases and lower workload required from rightsholders to combat internet piracy. In the long term, this will reduce costs in the audiovisual sector resulting as the tedious and intensive anti-piracy activities will no longer be needed to such an extent as currently.

Enabling the Polish courts to issue injunctions to block sites

Blocking injunctions are the most effective mechanism to combat copyright infringement. It is particularly useful when site owners do not cooperate, infringements are repeated, or audiovisual works are released from jurisdictions where copyright protection is not enforced or is very difficult. The cases of countries that have implemented the mechanism show positive effects of blocking sites, measured by a decrease in traffic on pirate sites.



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Glossary of terms

Act – Copyright Law – Act of 4 February 1994 on copyright and related rights (consolidated text in the Polish Journal of Laws of 2016, item 666, as amended).

Act on the provision of electronic services (UŚUDE) – Act of 18 July 2002 defining, among others, the service provider's obligations relating to the provision of services by electronic means (consolidated text in the Polish Journal of Laws of 2020, item 344).

APP – Anti-Piracy Protection Global, a leading organisation active for over 10 years in the field of intellectual property protection in Poland and globally. It assists creators and organisations cooperating with them in the fight against illegal sharing of copyrighted content. APP GLOBAL

AVoD – a video-on-demand service based on an advertising monetisation model.

BitTorrent – a protocol for exchanging and distributing files over the internet directly among users connected to the BitTorrent network at a given time. Commonly abbreviated as torrent.

Credentials sharing – providing login data for paid services to unauthorised persons in order for them to use the service for free, in breach of the site's terms and conditions.

Cyberlocker – an internet site offering online storage and dissemination of files

by users for remuneration based on the number of downloads of each file.

Directive on electronic commerce – Directive 2000/31/EC of the European Parliament and of the Council of 8 June 2000 on certain legal aspects of information society services, in particular electronic commerce, in the Internal Market (OJ L 178/1 17.07.2000).

File – a structured set of data of finite length for storing digital content, for example programmes, images, sounds, videos, for use on computing devices.

Follow the money – a form of tackling online copyright infringers by hindering or eliminating their sources of revenue.

Heavy user – a user of sites offering audiovisual content whose consumption of content far exceeds that of an average viewer.

Hosting – a service, which involves providing space on a server, rendered by a hosting service provider, for storing all kinds of data managed by a customer.

InfoSoc Directive – Directive 2001/29/EC of the European Parliament and of the Council of 22 May 2001 on the harmonisation of certain aspects of copyright and related rights in the information society (EC Official Journal L 167/10 of 22.06.2001 as amended).

IPTV – an internet TV standard that enables the delivery of audio and video

signals over a closed and operator-separated broadband network. It differs from streaming services in that it requires a set-top box paired with a broadcaster, rather than just a computer, phone or tablet as in Web streaming.

Live streaming market – live streaming of sports and other events, e.g. concerts, real-time re-streaming of TV channels.

Magnet link – URL link used to initiate a torrent content download.

Notice and action – requesting hosting service providers to act when they have credible knowledge or official notification of the unlawful nature of content stored on servers made available to service users.

Notice and stay down – proposed procedure to be followed by hosting service providers to prevent re-appearance of reported content on a server in the event of credible knowledge or official notification of the unlawful nature of content stored on servers made available to users.

Notice and take down – a procedure to be followed by hosting service providers in the event of credible knowledge or official notification of the unlawful nature of content stored on servers provided to users, consisting in the removal of the reported content located at a specific URL.

Paywall – a method of monetising content on the internet by charging for access to resources.

Peer-to-peer, P2P - a model of content exchange between internet users based on the direct transfer of fragments of the exchanged file, controlled by a central server that monitors traffic and availability of content, a so-called tracker.

Piracy on the internet – activity of publishing, distributing, and sharing works over the internet without the consent of rightsholders, in breach of agreed conditions or contrary to generally applicable law.

Smart TV – a device combining the functions of a traditional television set with the possibility of accessing internet resources and running applications.

Streaming – real-time playback of works on an end-user's device from a real-time continuous data stream, without the work being stored in the device's resources.

SVoD – a video-on-demand service based on a subscription model.

UGC Platforms (User-Generated Content) – services that allow users to publish content, without any knowledge of their origin or legal status.

User - internet user aged 15-75.

Video market (audiovisual productions) – films, TV series, TV programmes, other audiovisual productions, e.g. animated films for children, theatre plays.

Work - any manifestation of creative activity of an individual character, established in any form, irrespective of value, purpose and manner of expression, subject to copyright protection. In the report, used with content interchangeably.

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