Video content piracy: capturing a multibillion-dollar opportunity

MUSO | KEARNEY

Since the dawn of commercial video, some viewers have sought to avoid paying for it. Content piracy is a decades-old problem dating back to the days of illegal VHS dubbing and covert cinema recordings using videocams.

Over time, video content piracy has become increasingly digitalized. The explosion of high-speed connectivity and high-quality video content makes piracy more prevalent than ever. In today's highly connected world, the technology might have changed, but the fundamental issue remains the same.

While regulatory deterrence and legal enforcement remain a must, service providers have an opportunity to change the game through innovations in pricing, content access, and viewer experience. By applying analytics and artificial intelligence (AI) to viewer behavior data—from their own customer base as well as the treasure trove of data on pirate consumption—service providers can capture a multibillion-dollar opportunity.
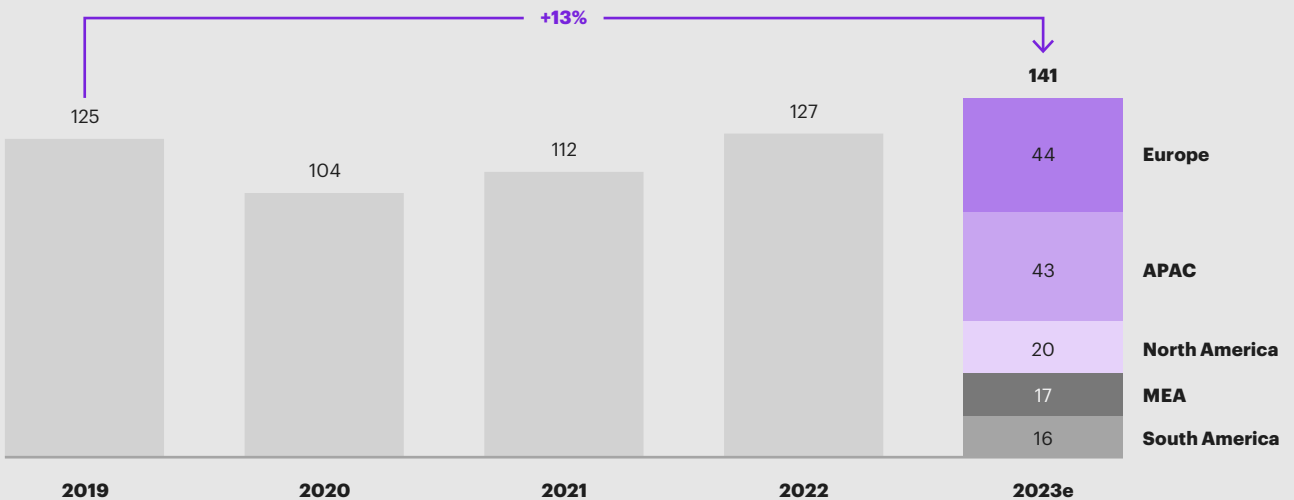
A $75 billion game of cat and mouse played out online

Today, online video content piracy is estimated to be a $75 billion per year revenue leakage problem for the global media sector. This figure is projected to reach $125 billion by 2028, representing an annual growth rate of nearly 11 percent.

After a dip in 2020 driven by a reduction in new content production during the pandemic, piracy site visits have surpassed pre-pandemic levels and are projected to be 13 percent higher in 2023 than in 2019, thanks in part to a plethora of popular and in-demand content being released. This year is set to be the highest year since MUSO started tracking video piracy data in 2017 (see figure 1).

The problem of piracy obviously impacts those who own and license content through the commercial value of rights. However, the issue is not limited to multibillion-dollar media corporations. At the lower end of the spectrum, innovation is stifled as small producers and distribution platforms are inhibited from monetization.

Figure 1
The level of video piracy will reach an all-time high in 2023

Global piracy visits (billions)

+13%

2019	2020	2021	2022	2023e
125	104	112	127	141

2023e breakdown:
- 44 Europe
- 43 APAC
- 20 North America
- 17 MEA
- 16 South America

A visit is defined as a visitor accessing one or more pages within a piracy site.

Sources: MUSO; Kearney analysis

Furthermore, piracy has a broader socioeconomic impact on job creation. The Motion Picture Association of America reports that the United States has more than 122,000 businesses in the media and entertainment sector, 92 percent of which employ fewer than 10 people. Finally, the distribution of pirated content is not a hobby for disenchanted youths sitting in basements; it is a core activity of international criminal organizations that engage in a wider range of illegal activities.

Piracy also deters foreign direct investment and negatively impacts the business climate, reflecting badly on the government's ability to tackle IP infringement. Countries that successfully address piracy, meanwhile, enjoy higher rankings on IP-/copyright-related indices such as the Special 301 Report issued by the US Trade Representative in 2022.

Turning a problem into an opportunity

As with any problem, the flip side of the piracy coin offers an opportunity. Even if a quarter of the revenue leakage was recovered, eliminating piracy could boost the global broadcast and xVOD subscription market value by 6 percent.

The video market is characterized by rising fragmentation and complexity, with more players in the ecosystem, more types of content, and more business models (SVOD, TVOD, AVOD, BVOD, FAST). In this environment, a blunt one-size-fits-all approach must give way to a strategy that places piracy-related data and analytics at the heart of strategic decision-making.

This shift to a new mindset involves three key elements:

— A shift from a blanket approach to piracy to a nuanced approach to content across genres, platforms, and geographies

— A shift from seeing all illegal users as the same to addressing the segmented psychology of pirate viewers

— A shift from seeing piracy as a demand-side curse to a supply-side opportunity to make piracy redundant

Effective use of data and technology is the common thread underpinning these three themes.

1. Taking a nuanced approach to content

In a digital landscape where creativity and commerce collide, the vast and intricate web of digital piracy data presents a unique opportunity to unlock audience demand insights and proactively navigate rapidly evolving market dynamic demands.

By analyzing piracy demand patterns, content creators and rights holders can gain valuable new insights into audience preferences, empowering them to adapt and thrive in an increasingly competitive landscape.

MUSO measures both unlicensed downloading and streaming consumption of more than 730,000 film and TV titles globally. Lifting the lid on pirate content consumption using MUSO data, there are significant variations by geography, genre, and platform.

Geography

Regionally, Europe and APAC dominate the piracy landscape in terms of absolute volume, with visits per head of total population highest in Europe. Key piracy drivers are multiple and complex, but major factors include high Internet penetration and disparate, misaligned content release windows with local licensing restrictions (see figure 2 on page 3).

Significant country nuances require customized approaches (see figure 3 on page 3):

— The **US** ranks first in visits to piracy sites. High penetration of superfast broadband; widespread access to computers, smartphones, and tablets; a large population culturally focused on Hollywood; and less effective enforcement legislation all continue to fuel demand.

— **India** stands out with significant year-on-year growth in film piracy, a particularly concerning trend given the country's large population and the potential economic impact on the $3 billion domestic film industry. Factors such as rising Internet accessibility and affordability and a lack of stringent anti-piracy measures contribute to this increase. India's 2022 VPN law providing government access to VPN usage data may push users to overseas VPN services online.

Figure 2
The top 3 countries represent almost 30% of video piracy demand
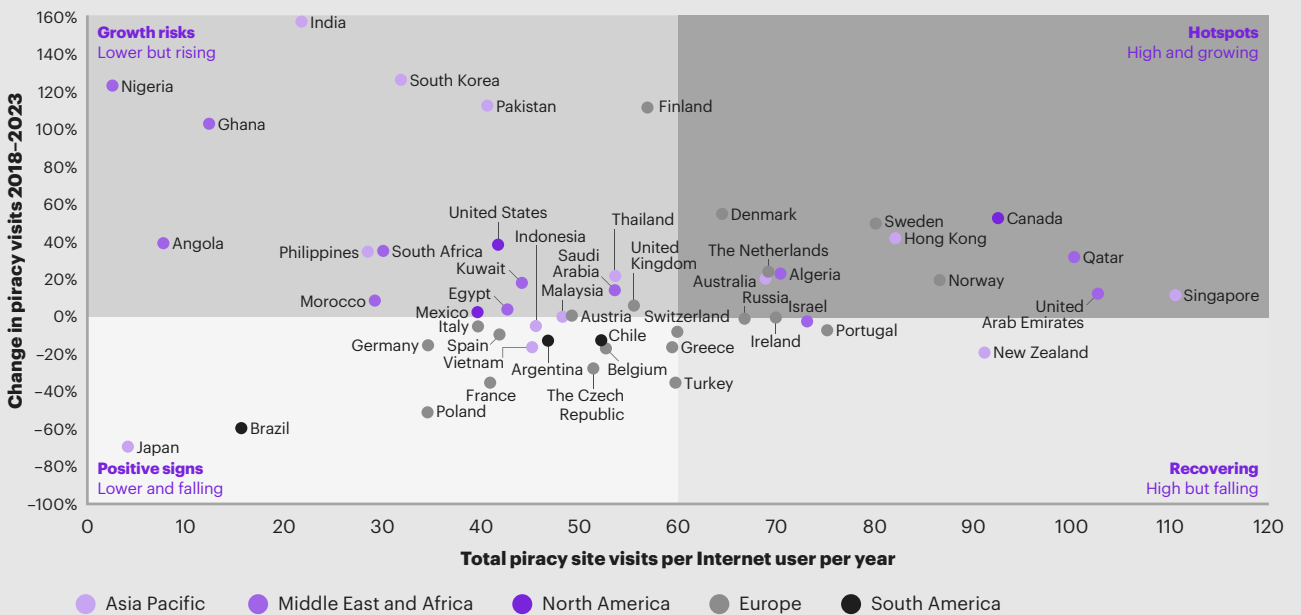
Country share of global pirate site visits

			2018	2023 H1	Change	
1	US		9%	11%	**+2%**	↑
2	India		4%	11%	**+7%**	↑
3	Russia		7%	6%	**-1%**	↓
4	UK		3%	3%	**=**	
5	Canada		2%	3%	**+1%**	↑
6	Ukraine		3%	3%	**=**	
7	Turkey		4%	3%	**-1%**	↓
8	China		3%	2%	**-1%**	↓
9	Germany		3%	2%	**-1%**	↓
10	Indonesia		3%	2%	**-1%**	↓

Sources: MUSO; Kearney analysis

Figure 3
Varying trends by country require a customized approach

Country analysis: volume of piracy vs. growth rate

Sources: MUSO; Kearney analysis

— **Kuwait's** increase in film piracy serves as a reminder that—in a country split across Kuwaiti, Arab, and South Asian communities—segmenting content demand with diverse pricing offers for each segment can indicate where underserved local demand can be met. Effective strategies must consider both economic factors and cultural attitudes toward piracy.

— The **Netherlands**, despite its robust legal framework and strong anti-piracy efforts, saw a notable increase in film piracy. This highlights the ongoing challenges posed by piracy, even in developed nations with higher spending power.

— **China** ranked eighth by visits to piracy sites during H1 2023, but likely ranks even higher because the Great Firewall makes tracking web and Internet data—and traffic to Chinese piracy sites—more difficult. The Firewall also reduces access to piracy sites outside of China, creating a unique situation that impacts traffic measurement in the market.

Content genres

On-demand movies and TV shows represent 92 percent of all piracy visits, with live sports making up most of the rest (see figure 4).

However, material differences by genre exist by market. For instance, the United States and APAC have a similar profile on piracy consumption of TV shows, both at between 59 and 62 percent of total visits. However, live sports only accounts for 5 percent of piracy site visits in APAC, but 11 percent in the US. Live sports and anime have seen the fastest growth rates since 2018 and now stand at 7 percent of all unlicensed video content and 10 percent of TV content, respectively.

Figure 4
Movies and TV shows capture 92% of video piracy demand

Unlicensed demand by genres (1H 2023)
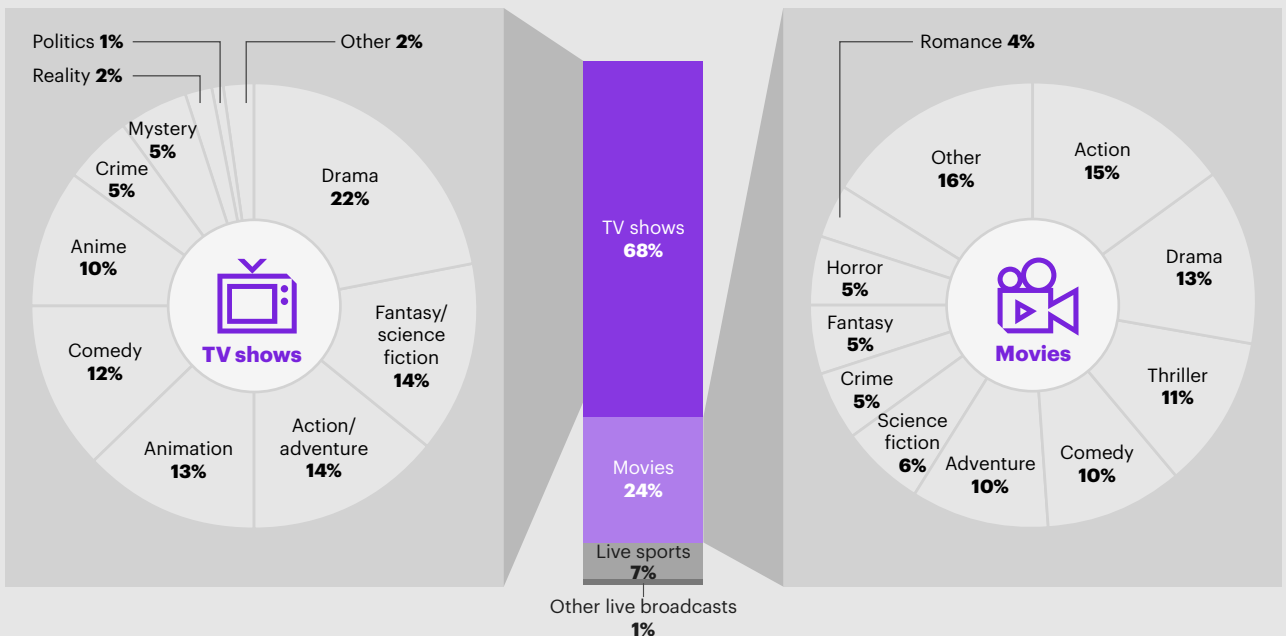
Sources: MUSO; Kearney analysis

The most in-demand entertainment genres are naturally heavily influenced by release schedules. The movie industry's distribution structure means that popular releases often have a longer shelf life than TV series, as availability on PPV and SVOD services several months after theatrical release relaunches interest in the title. Indeed, as of June 2023 the year's most requested movie globally was originally released in mid-December 2022. The biggest worldwide box office success as of June 2023, meanwhile, was only the sixth most demanded title in H1 2023, with two other productions from 2022 ahead of it.

A closer look at the specific genres of anime and reality TV highlights the unique dynamics of the market:

Anime. Demand for unlicensed anime content has seen a huge surge, with data from H1 2020 to H1 2023 showing a 15 percent increase in unlicensed demand market share. The volume of anime titles within the top 1,000 TV titles increased by 39 percent during the same period, highlighting the growing global appeal of this genre. An evolving landscape of viewer preferences and market dynamics is driving significant demand far beyond the bounds of official licensing agreements. Between September 2022 and September 2023, anime constituted six of the 10 most in-demand titles globally.

Reality TV. Despite its maturity as a genre and prevalence on licensed broadcast and streaming services—and lower overall demand for reality TV as a genre—there continues to be persistent high demand for specific reality shows by unlicensed audiences. Notably, according to MUSO data, 2021's most popular reality show in the UK received 2.3 million consumption visits, despite being available on free-to-air and as an AVOD offering. This viewership level is equivalent to that of major international dramas and highlights the need to assess both the commercial and user experience offering to understand why viewers are not using legal services.

Platforms
File-sharing sites and streaming platforms are the most widely used channels for accessing illegal content, due to their ease of access and extensive libraries of unauthorized material.

However, the mix of delivery methods for TV and film content has steadily changed over the past decade. Torrents—once the main source of online piracy— have given way to unlicensed streaming, in much the same way as legal consumption has shifted to video on demand. The most prevalent illegal streaming sites even have a UX that mirrors legal sites, facilitating ease of access.

Live sports and anime have seen the fastest growth rates since 2018.

2. Customer segmentation and profiling

As with any consumer market, segmentation is key. The piracy market has three segments:

1. **Unashamed:** people who knowingly consume pirated content that is also available legally, generally due to financial or "anti-establishment" reasons, or ignorance of the negative impact of piracy

2. **Unaware:** people who consume pirated content but do not know that they are using an illegal service

3. **Unwilling:** people who knowingly consume pirated content, either because it is not available legally in their market or because the legal service has technical or commercial limitations

Content rights owners have typically focused on the *unashamed* segment, initially with lawsuits—which made headlines but little economic sense—and, later, somewhat more successfully through communicating the negative impact of piracy and its links to organized crime. This led to greater social stigma, self-consciousness, and peer pressure for pirate users. Continued efforts to build awareness of the repercussions of accessing pirate content is needed.

The *unaware* segment presents a different problem. Some pirate services are designed to look like legal ones, and viewers do not necessarily know who holds the local rights.

Broadcasters are starting to do more to address this, but innovation by corporations, governments, and partnerships such as the Alliance for Creativity and Entertainment (ACE) is needed to avoid inadvertently promoting illegal providers. For example, OSN, the largest DTH pay TV broadcaster in the Middle East, has taken a grassroots approach that starts with informing schoolchildren of the wrongs of piracy and increasing awareness of legal providers and how content rights are bought and sold. The initiative includes hands-on video production experiences to boost appreciation of the resources needed for quality content creation. In the UK, Sky has brought together a group of media organizations to develop accredited materials (that include using content creators popular with the targeted age group of 11- to 14-year-olds) to be used as part of the curriculum to explain the impact of piracy and its relevance to young people.

The *unwilling* segment remains relatively overlooked but offers the biggest opportunity. Archaic content windowing and inefficiencies in rights distribution are at odds with the technological and commercial implications of an increasingly global and IP-first market. All too often, a viewer is willing to pay and has cash in hand, but no one to give it to. In other cases, the technical quality of the legal OTT service is inferior to an illegal alternative.

Account sharing cuts across all segments. Some share accounts unashamedly because they can without fear of repercussions. Others are unaware that sharing is prohibited. Some share accounts unwillingly, as a last resort—due to a lack of affordable pricing options, or to help a friend or relative who lacks technical knowledge or financial levers avoid the complication of setting up and managing an account.

Since the segmentation will vary by geography and genre, targeting based on customer insight will be most effective.

3. Shaping commercial models and a viewer experience that makes piracy redundant

Targeting the *unwilling* segment requires a deep, data-driven understanding of behavior as well as a targeted commercial strategy.

Multiple factors contribute to unwilling piracy: cost (content requires a subscription/purchase beyond what the consumer can reasonably afford, often due to bundling), availability (not available in the local country, not available in a convenient format), and viewer experience (excessive ad breaks; platform/hardware access). All these factors can drive a viewer to a pirate site.

Beyond pricing, deflecting users from pirate alternatives involves:

— **Commercials and UX:** local rights holders ensuring that the quality of their platform is the best available in the market by providing the required supporting delivery infrastructure and enough flexibility in product design and pricing to meet all potential needs. By treating pirates like competitors to be "out-innovated," broadcasters can offer a free advertising-supported option or selectively break the bundle and offer content on an à-la-carte or tailored basis, such as, for example, NBA TV, which allows fans to follow only their team's games for a reduced price.

— **Windowing and distribution:** original rights owners avoiding blackouts in local windowing, or even moving away from legacy local distribution models based on windowing. We are already seeing a move in this direction through shortening theatrical windows. For example, in the United States in 2019 it took 70 to 75 days on average for a theater release to be available as PPV. Today, we are closer to 35 (some movies even see dual release, in theater and online on the same day).

— **Viewer understanding and sensing:** all rights owners and licensees responding to real-time consumer demand. AI-based analytics enable a more proactive and receptive approach to emerging content trends that can challenge existing content and monetization strategies, grow audiences, and increase content competitiveness. Original and local rights holders need to align their approaches along the distribution value chain to remove friction, enable innovation, and ultimately benefit the consumer.

With consumers expecting to access any content at any time on any device, ignoring these "carrots" and over-focusing on "sticks" to combat piracy limits TV broadcasters' ability to credibly campaign against piracy. Rights owners and service providers must aspire to give viewers absolutely no incentive to use a pirate service (see figure 5 on page 8).

Targeting the *unwilling* segment requires a deep, data-driven understanding of behavior as well as a targeted commercial strategy.

Figure 5
Piracy data and analytics enable powerful levers to combat revenue leakage

Primary data and analytics levers for revenue leakage, by genre

Premium scripted movies/originals

Linear broadcast/FAST

Live sports

	Commercial models and UX Create commercial models and UX that maximize reach across consumer segments	Windowing and distribution Optimize access windows and platforms by geography	Viewer understanding and sensing Enhance user experience supported by insights and technology
1. Geo-targeting		🎥 🖥	
2. Predictive economics	🎥 🖥	🎥 🖥 ⚽	
3. Content diagnosis and analysis	🎥 🖥 ⚽	🎥 🖥 ⚽	
4. Customer profiling and sensing	🎥 🖥 ⚽	🎥 🖥 ⚽	🎥 🖥 ⚽
5. Gaming/e-sports cross-format analysis			🎥 🖥 ⚽
6. Hyper-personalization			🎥 🖥 ⚽
7. Affinity analysis			🎥 🖥 ⚽

Sources: MUSO; Kearney analysis

Data, analytics, and AI as an enabler

While technology has triggered growth in content piracy, it is also at the heart of the solutions—in terms of diagnosing unlicensed content, drawing insights from customer profiling, and developing superior alternatives to the commercial models and viewer experience of pirate offerings. For each type of content, various data-enabled levers can be activated to increase revenue potential (see sidebar: Sizing the opportunity on page 9 to understand the real impact these can have).

Sample use cases include:

— **Predictive economics.** MUSO piracy consumption data shows a strong Spearman rank correlation of 0.85 with film box office revenue data. Film companies can use this to measure a movie's revenue projection and adapt their marketing strategy accordingly. This approach applies to different content windows and sectors and supports user-level predictions around complex questions such as, "How do we predict content consumption?" or "Will this show attract new subscribers to our platform?"

— **Content diagnosis and analysis.** Piracy data can provide a live pulse check on consumer interests and inform decisions on production, rights investment, develop-or-evolve release strategies, and how to address pain points in delivery. Benefits include business efficiency and reduced risk and cost.

— **Geo-targeting.** Using data to gauge global and local demand can help marketers direct budgets toward countries and regions where interest in specific content is measurably higher. This targeted approach drives more effective campaigns and a higher return on investment, as resources are allocated to areas with the most receptive audiences.

— **Customer profiling and sensing with predictive triggers.** Predictive AI technology can anticipate and pre-empt piracy. For example, Kearney's Sense & Pivot toolkit combines dynamic data inputs from the legal service provider together with external sources to predict and pre-empt unlicensed demand behavior.

— **Hyper-personalization.** Using GenAI algorithms to deliver actual and perceived personalization on content recommendation as well as the viewing experience can improve the offering versus pirate alternatives. By combining this with affinity analysis, MUSO data can also suggest relevant movies and TV shows to the recommendation engine. This can improve personalization and create a more dynamic and engaging consumer experience.

— **Gaming and e-sports cross-format analysis.** As the lines between gaming, e-sports, and video content become increasingly blurred, data sources can identify crossover trends for TV, film, and gaming. This is particularly helpful when breaking out of the confines of traditional, segmented market research by understanding demand relationships between complementary formats that are becoming a mainstream media choice, especially for younger audiences. Analytics can also guide how gaming IP can supercharge the next generation of storytelling in film and TV.

— **Affinity analysis.** Unique data enables the exploration of audience crossover within a wide range of films and TV shows and can highlight deeper consumer preferences and behaviors in new ways. These insights provide a powerful source for driving tailored, optimized recommendations, strategic partnerships, and informed content creation.

One fundamental prerequisite is to make piracy data widely available across different business units. While the general counsel and legal teams require access for enforcement of content rights, piracy data needs to be analyzed from a variety of perspectives to yield optimal benefit.

Sizing the opportunity

Based on MUSO data, even moderate success in monetizing users of pirated content can have a substantial impact on industry revenue. For a mid-sized movie (about $50 million budget) grossing around $50 million from its global theatrical release with a long theater release window, the incremental revenue opportunity using our assumptions on theatrical and post-theatrical pricing and conversion levels is shown in figure A on page 10.

Applying a higher degree of measurement granularity highlights how even moderate success in monetizing non-paying consumers can positively impact revenue streams for each phase of the release window (see figure B on page 10). For example, when considering market expansion to increase the conversion rate to legitimate sources, companies can pursue innovative marketing and distribution approaches in markets to focus on where the potential is highest.
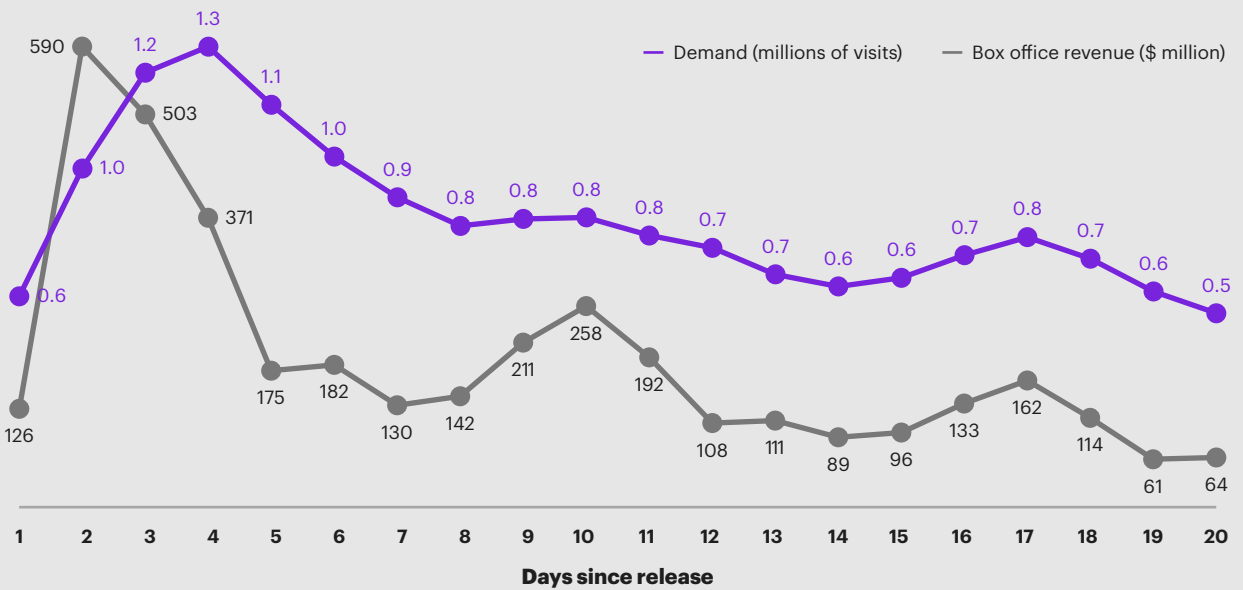
Figure A
Even a small decrease in piracy conversion rates can have a positive impact on revenue

Piracy conversion level	Incremental revenue ($ million)	Share of global theatrical revenue
1%	2.5	6%
3%	7.6	17%
5%	12.7	29%
10%	25.3	58%

Sources: MUSO; Kearney analysis

Figure B
Piracy demand strongly correlates to box office revenue

MUSO data correlated to box office revenue (across 98 film titles of varying budget size and box office success first 30 days of theatrical release)

— Demand (millions of visits)   — Box office revenue ($ million)

Demand (millions of visits): 0.6, 1.0, 1.2, 1.3, 1.1, 1.0, 0.9, 0.8, 0.8, 0.8, 0.8, 0.7, 0.7, 0.6, 0.6, 0.7, 0.8, 0.7, 0.6, 0.5

Box office revenue ($ million): 126, 590, 503, 371, 175, 182, 130, 142, 211, 258, 192, 108, 111, 89, 96, 133, 162, 114, 61, 64

Days since release: 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20

Sources: MUSO, Comscore; Kearney analysis

Time for a shift

Media and entertainment companies prepared to pivot to a new approach and mindset to unlock the latent value sitting behind content piracy can enjoy a substantial revenue upside.

Three immediate steps:

— **Shift the mindset.** Move beyond a black-and-white approach to piracy to understand the nuanced psychology behind pirate users and use this as a catalyst for positive commercial and operational change.

— **Shift to an expansive approach to data.** Focus on harnessing data from external and internal sources into a single, de-siloed engine that is available across the organization.

— **Shift to a think-build-scale approach.** Anchor anti-piracy strategies on value-driven use cases that build capability and scale the supporting people, tools, and processes.

Media and entertainment companies prepared to pivot to a new approach and mindset can enjoy a substantial revenue upside.

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About MUSO

MUSO is a data company that provides the most complete and trusted view of global piracy and unlicensed media consumption.

MUSO measures global piracy, monitoring all major forms of piracy activity, including streaming, web downloads, public and private torrents, and stream rippers. MUSO's data drives content protection, audience measurement, and monetization solutions for rights holders globally.

Headquartered in London, the company was founded in 2009 with a mission to protect clients' IP and unlock the value of global audiences for unlicensed content. Since then the company has experienced explosive growth in the entertainment sector, serving some of the largest global brands in film, TV, music, gaming, and live sports, and currently has 50 staff across London, LA, and Eastern Europe.

muso.com

About Kearney

Kearney is a leading global management consulting firm. For nearly 100 years, we have been a trusted advisor to C-suites, government bodies, and nonprofit organizations. Our people make us who we are. Driven to be the difference between a big idea and making it happen, we work alongside our clients to regenerate their businesses to create a future that works for everyone.

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