

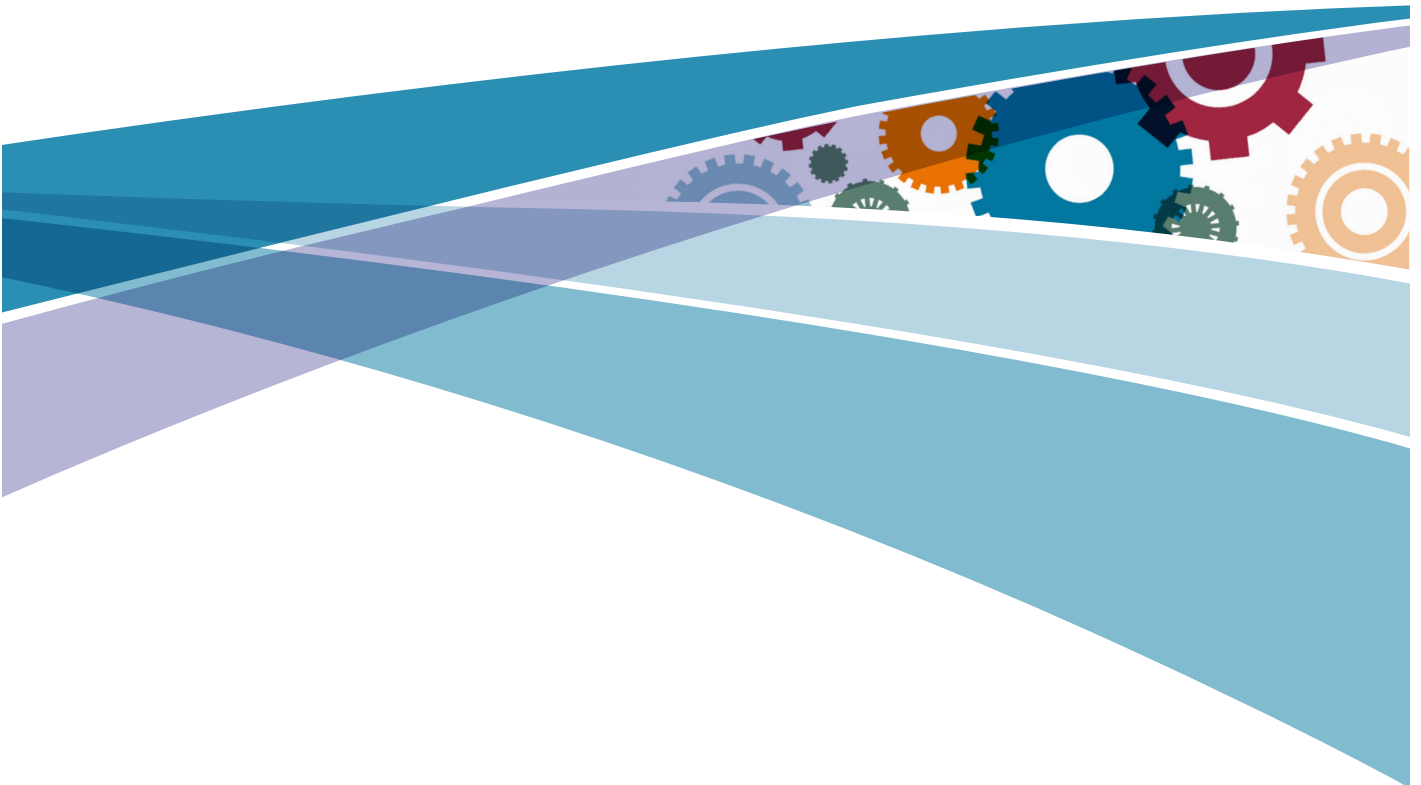


Intellectual  
Property  
Office

# Online Copyright Infringement Tracker

## Latest wave of research Mar 16 - May 16

### Overview and key findings



Research commissioned by the Intellectual Property Office and carried out by: Kantar Media.

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Submitted version: 20<sup>th</sup> June 2016

This is an independent report commissioned by the Intellectual Property Office (IPO).

## About Kantar Media

Kantar Media is a well-established brand of trusted media analysts and advisors. We help the world's advertisers, media owners, advertising/media/PR agencies, and publishers together with government, NGO, and trade organisations to measure their media reputation and impact.

Kantar Media has a strong track record in researching and understanding about the copyright infringement area, having conducted the Illegal file sharing pilot for Ofcom in 2010 and three subsequent waves of the OCI tracker.

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# 1. Introduction

This report details the main findings of the sixth wave of a large-scale consumer tracking study into the extent of online copyright infringement, as well as wider digital behaviours and attitudes, among people aged 12+ in the UK. The study was commissioned and financially supported by the UK Intellectual Property Office (IPO). It is the sixth in a series of research waves intended to generate benchmarks and time series relevant to the access and use of copyright material online. It also outlines the background to the research and a detailed description of the methodology employed.

Researching copyright infringement and digital behaviours is complex. The ways in which consumers access and share copyright material online change regularly, and infringement levels, in particular, are notoriously difficult to measure. We have gone to extensive lengths to find the best way of securing meaningful and accurate results for this survey, including commissioning a methodological study and an independent peer review. These reports can be found at:

<http://stakeholders.ofcom.org.uk/binaries/research/telecoms-research/filessharing/kantar.pdf>

<http://stakeholders.ofcom.org.uk/binaries/research/telecoms-research/filessharing/peer.pdf>

Rather than focusing on one industry, the study looks at six main types of online content – music, film, TV programmes, books, video games and computer software – and for each of these assesses levels of infringement. These are then assessed within wider patterns of consumer behaviour and content consumption.

For this sixth research wave respondents were surveyed during the period of March to May 2016 and asked about their behaviour during “the past three months”. Reference to the figures from the previous wave (2015, covering the period March to May 2015<sup>1</sup>) are made where statistically significant changes have occurred. In some cases references are also made to the previous waves.

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<sup>1</sup> Full details and results of previous waves can be found at [http://stakeholders.ofcom.org.uk/market-data-research/other/telecoms-research/copyright-infringement-tracker/\(W1\)](http://stakeholders.ofcom.org.uk/market-data-research/other/telecoms-research/copyright-infringement-tracker/(W1)) and [http://stakeholders.ofcom.org.uk/market-data-research/other/telecoms-research/copyright-infringement-tracker2/\(W2\)](http://stakeholders.ofcom.org.uk/market-data-research/other/telecoms-research/copyright-infringement-tracker2/(W2)) [http://stakeholders.ofcom.org.uk/market-data-research/other/telecoms-research/copyright-infringement-trackerw3/\(W3\)](http://stakeholders.ofcom.org.uk/market-data-research/other/telecoms-research/copyright-infringement-trackerw3/(W3)). [http://stakeholders.ofcom.org.uk/market-data-research/other/telecoms-research/oci-wave4/\(W4\)](http://stakeholders.ofcom.org.uk/market-data-research/other/telecoms-research/oci-wave4/(W4)). <https://www.gov.uk/government/publications/online-copyright-infringement-tracker-survey-5th-wave> (W5).

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## 2. Key findings

This report presents the main findings of the sixth wave (W6) of our consumer tracking study into online copyright infringement. The key findings are as follows:

### General digital content consumption

- Fifty-nine per cent of UK internet users aged 12+ consumed at least one item of online content<sup>2</sup> (legally or illegally) over the three-month period March-May 2016. Thirty-nine per cent had downloaded content, and 52% had streamed or accessed content. The streaming activity has grown significantly from previous waves. This is the highest level of streaming or accessing content online we have seen to date.
- Consumption varied across content types; music (37%) and TV programmes (35%) had the highest levels either downloaded or streamed online in the past three months, followed by films (25%), books (12%), video games (12%) and computer software (11%). The overall consumption level has risen from the previous wave, with streaming behaviour and use of subscriptions services appearing to be main drivers of this.

### Payment

- Over half (57%) of those who consumed any type of content during the past three months, paid for at least some of it. This remains stable, with no change in paid and free consumption of content from the past two waves (W4 2013 and W5 2015).
- Just over a quarter (26%) of 12+ UK internet users accessed content entirely for free, this again has remained stable over the previous two waves (W4 2013 – 25% & W5 2015 – 27%).
- Across all content types, and among all internet users aged 12+, the ‘mix of paid and free’ group remained stable and to the same levels as seen in W2 (23%). Year on year we have also seen stability in the proportion consuming content for free (W5 2015 – 51% to W6 2016 – 52%).

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2 ‘Online content’ refers to any of six types – music, films, TV programmes, computer software, books and video games.

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## Levels of infringement

- We estimate that 15%, (equating to approximately 6.7 million) of UK internet users aged 12+ consumed at least one item of online content illegally over the three-month period March-May 2016. And 5% of the 12+ UK internet users have exclusively consumed illegal content. There have been no significant changes in this proportion since W5 2015. However we have seen a longer term significant drop from 17% to 15% since 2013.
- Levels of infringement varied significantly by content type with the highest levels of infringement for music, TV programmes and film categories at 8% of all internet users, 7% and 6% respectively.
- If instead of looking at 'all internet users aged 12+' we use a base of 'all internet users who consumed content online over the three-month period', we found that 25% consumed at least one item illegally. Furthermore, 24% of those who consumed film, and 20% for both music and TV programmes, while the lowest incidence of illegal consumption was among online book consumers (11%).
- The proportion of all internet users aged 12+ who consumed content exclusively legally has increased significantly to 44% since wave 5 2015 ( 41%).

## Demographics

- Across all content types, those who downloaded or streamed illegally were skewed towards those aged under 35 (63%) and ABC1 (58%). Non-infringers were more likely to be ABC1 (73%) but there was little difference in terms of gender or age as digital behaviours like streaming become increasingly mainstream. We also looked at the penetration levels among demographic groups and this wave found similar levels of infringement between SEC C2DE (12%) compared to SEC ABC1 (13%).

## Volumes of infringement

- Overall the digital format continues to grow with consumption contributing three quarters of the overall volume (613m) of content both legal and illegal. These digital volumes have increased by 5.5% percentage points since 2015.
  - Music was by far the most-consumed content type, both digitally (355 million tracks) and physically (88 million tracks) over the three-month period. Further, we estimate that 78 million music tracks were accessed illegally online in the last 3 months. The music category has the highest volume and proportion of infringement compared to the other categories, although we do see those levels of infringement in decline having estimated infringement at 96 million this time last year.
  - Films also showed an increase in volumes of just over 5 million and a more notable shift was seen for TV programmes of a 16 million increase over the last year. These categories also both showed increases in the digital volumes of infringement with films now estimated at 24 million and TV programmes 27 million pieces of content.
-

## Services used for consuming online content

- Half of those who consumed or shared any content online in the past three months used YouTube (49%), followed by the BBC iPlayer and Amazon services. BBC iPlayer service usage has declined from 44% in 2013 to 37% 2015 to 35% in 2016, but remains an important source, particularly for the non-infringers.
- Spotify has shown a significant increase in the proportion who use the service since 2015 rising from 16% to 19%.
- Use of Peer2Peer (P2P) continues to drop from 12% to 10% at the total level and 26% to 23% among infringers.
- Last wave we picked out uTorrent as the highest penetration individual peer-to-peer service used, uTorrent at 17% in 2015 and although still leading we have seen a significant drop to 12% in 2016.
- We also see a significant drop in the use of YouTube<sup>3</sup> by infringers since last wave from 63% to 58% in 2016.

## Spend

- The proportion of 12+ individuals in the UK who spent money on at least one of the categories we analysed ranged from 11% for software to 45% for films. Average quarterly spend ranged from £4.66 for software to £22.06 for music.
- For both music and films, spend on 'other' (which included cinema/concerts and merchandise) was substantially higher than spend on physical and digital content.
- Music had the highest overall quarterly estimated spend across the content types, at an estimated £1,183m. Spend on music in physical format during this period (£280m) was more than that generated from digital music (approximately £265m for individual purchases and online subscriptions combined). Online subscriptions accounted for spend of £169m in the latest wave of research compared to £101m in the previous wave, driving an increase in quarterly sales.
- Among those that are 100% legal we have seen an increase in spend for all categories except TV programmes which has stayed stable and gaming which has declined by c.£3 since 2015. The biggest increase in spending was for films which increased from £21.14 to £41.84 over the last year. Among those that infringe we have seen a decline in spending across all categories since last year.

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<sup>3</sup> Note that unlawful activities are possible on some services (such YouTube, iTunes, Google Play, etc).

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## Reasons for infringing

- The most commonly cited reasons for infringing were because it is free (49%), convenient (45%) and quick (42%).
- Speed and convenience have both shown increases in 2016.

## What would make infringers stop?

- The top factors that infringers said would encourage them to stop included making legal services cheaper (24%), if everything they wanted was available legally (20%), and if it was clearer what is legal and what is not (19%).
- All factors were mentioned by a higher proportion of those who consumed a mix of legal and illegal content than by those who consumed content exclusively illegally.
- Only 14% of those who consumed illegal content exclusively stated that nothing would encourage them to stop. This has remained consistent with the level recorded in 2015.
- 11% of infringers indicated that they would be put off 'if my ISP sent me a letter saying they would suspend my internet access', 10% for 'if my ISP sent me a letter informing me my account had been used to infringe', and 9% for 'if my ISP sent me a letter saying they would restrict my internet speed'.
- Responses to the threat of ISP letters suspending their accounts or restrict their internet speed have decreased again in 2016; the suspension of internet service in particular has fallen by a small proportions wave-on-wave (from 22% in the first wave, to 15% in 2015 and the current level of 11%).

## Levels of consumer awareness in legal services and confidence about what is and is not legal online

- Lack of confidence about what is and is not legal online appeared more prevalent among females (47% v 33% of male) and C2DEs (46% v 38% of ABC1), i.e. those less likely to participate in all forms of online activity (legal and illegal).
  - A lack of confidence generally increased with age beyond 34:58% of those aged over 55 said they weren't confident in knowing what was legal online.
  - The proportion of people claiming to be 'not at all confident' in what is and is not legal online has remained stable in 2016 at 16%.
-

## 3. Research overview

### 3.1 Background and objectives

The Digital Economy Act (DEA) 2010<sup>4</sup> extended IPO's remit to include new duties related to online copyright infringement. The DEA requires IPO to establish a code setting out the rules for a scheme, whereby internet service providers (ISPs) must notify their subscribers of allegations made by copyright owners that their account has been used to infringe copyright. Once the scheme is operational Ofcom must report to the Secretary of State, on progress in reducing levels of infringement.

In May 2011, the Hargreaves Review of Intellectual Property and Growth recommended that Ofcom should not wait until the DEA scheme was up and running to begin gathering data and establishing benchmarks on online copyright infringement<sup>5</sup>. The Government adopted this recommendation and, as a result, the Intellectual Property Office agreed to fund Ofcom to conduct research into online copyright infringement, in order to gather initial evidence and trends that could be used to assist policy making.

In 2012, Ofcom commissioned Kantar Media to conduct a tracking study covering behaviour and attitudes towards both lawful and unlawful online use of copyright material across several content types. This study was funded by the IPO. In 2015 and 2016, the IPO commissioned and managed this project with Kantar Media.

The table below sets out the wider overall aims of the research, along with the specific research objectives and associated metrics:

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4 <http://www.legislation.gov.uk/ukpga/2010/24/contents>

5 <http://www.ipso.gov.uk/ipreview.htm>

<http://www.ipso.gov.uk/ipresponse-full.pdf>

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OVERALL AIM	RESEARCH OBJECTIVE	METRICS
Establish the current level of subscribers' use of internet access services to infringe copyright.	<ul style="list-style-type: none"> <li>• Measure online copyright infringement levels (alongside lawful activity) among UK consumers, and monitor changes on a quarterly basis.</li> </ul>	<ul style="list-style-type: none"> <li>• Whether accessed/ downloaded/ shared files (ever, past three months) by content type.</li> <li>• Frequency per content type.</li> <li>• Volume per content type.</li> <li>• Proportion of type paid for and free.</li> <li>• Proportion of files believed to have been legally accessed (from which a figure for illegal files can be derived).</li> </ul>
Describe and assess the steps taken by copyright owners "to inform, and change the attitude of, members of the public in relation to the infringement of copyright" and "to enable subscribers to obtain lawful access to copyright works."	<ul style="list-style-type: none"> <li>• Gain deeper understanding of attitudes towards copyright infringement.</li> <li>• Monitor awareness and effectiveness of educational campaigns.</li> <li>• Assess awareness and attitudes towards availability of lawful alternatives.</li> </ul>	<ul style="list-style-type: none"> <li>• General attitudes.</li> <li>• Key drivers of behaviour.</li> <li>• Why people do /don't infringe.</li> <li>• What would make them stop?</li> <li>• Awareness/use of lawful services.</li> <li>• Reasons why do/don't use lawful services.</li> <li>• Understanding of what is legal.</li> </ul>
Better understand the role that pricing plays in the lawful and unlawful access of online content.	<ul style="list-style-type: none"> <li>• Measure spend on recorded and digital media to analyse potential impact of unlawful file-sharing on purchase of related content (positive and negative).</li> <li>• Explore willingness to pay and optimum pricing for different content types.</li> </ul>	<ul style="list-style-type: none"> <li>• Current spend on relevant material.</li> <li>• Willingness-to-pay modelling</li> </ul>

## 3.2 Research notes

### Content types and activities assessed

Within this study we sought to provide measurements for six core content types of interest:



The questions we asked were primarily focused around the following online activities, explained to each respondent as follows:

- **Streamed or accessed:** By this we mean that you viewed, listened to or played content directly through the internet without downloading a copy. For example, watching TV programmes on BBC iPlayer or listening to music through services such as Spotify.
- **Downloaded:** By this we mean that you transferred a copy of the file to your device. For example, downloading a music track to your computer through iTunes or Amazon.
- **Shared:** By this we mean that you made the file publicly available, or sent or uploaded it online for someone else to download or stream/access. For example, sharing files on your computer through an online service. This does not include sharing links online.

These categories all relate to what we term 'digital' content/files. However, certain metrics in this report also incorporate consumer spend attributable to 'physical' formats (e.g. CDs, DVDs, physical books, games and cartridges) to help locate the consumption of digital content in its wider context.

For most of the content types there are several elements that had the potential to cause confusion and thereby distort the figures if misinterpreted by the respondent. For example, there is a fine line between music tracks and music videos, and there is a distinct difference (in terms of number of digital files) between singles and albums. Similarly, for computer software and video games people may consider updates and patches as products in themselves. Therefore, we attempted to be as clear to respondents as possible in terms of what they should include in the definition.

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These are as follows:

Category	Definition for respondent
<b>Music</b>	Music tracks or albums (excluding online radio stations) <sup>6</sup>
<b>Films</b>	Films (full length)
<b>TV programmes</b>	TV programmes
<b>Computer software</b>	Computer software (excluding mobile phone apps, and patches/upgrades to software already owned)
<b>Books</b>	e-books
<b>Video games</b>	Video games (excluding patches and upgrades)

There were a number of changes to the questionnaire in 2016:

- A few questions on magazines were added to help understand the numbers of people that stream or download this type of content.
- A new question was added on paying to have access to digital subscription services.
- New stream ripping codes were added.

## Key Metrics

With respect to assessing levels of copyright infringement for each content category, the approach is consistent throughout the survey; we filter down from general online behaviour towards the sensitive topic of infringement. Within each category, we outline key metrics at two levels:

- 1) **Respondent level:** For example, the total number and proportion of the UK population who undertook an activity such as downloading music.
- 2) **Volume level:** For example, the number of music tracks downloaded in the past three months, or the number of music tracks legally obtained.

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<sup>6</sup> 'Music videos' and 'short video clips' were asked separately for the 'ever done' and 'done in past three months' questions to aid with the distinctions.

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The key metrics throughout this report are summarised in the following table:

Topic	Respondent Level	Volume Level
<b>Assessing levels of copyright infringement</b>		
General behaviour	1. Ever done 2. Done in the past three months <sup>7</sup> 3. Frequency 4. Median volumes (past three months) among those who have done activity	
Payment	Proportion of the population who fit into the following derived groups in terms of volume of content consumed in the past three months: 1. 100% paid 2. Mix of paid and free 3. 100% free 4. Any free (combination of 2 + 3) 5. 100% already owned in physical format 6. Any already owned in physical format 7. None already owned in physical format 8. 100% previously downloaded for free (% of paid acquisitions across formats) 9. Any previously downloaded for free 10. None previously downloaded for free  As well as the proportions of those who have done the activity in the past three months, metrics 1 to 4 are also reported among the total 12+ UK internet population, and include median volumes. Metrics 5 to 10 include mean volumes	Paid and free proportions of total volume (incorporating physical format where relevant)
Legality	Proportion of the population who fit into the following derived groups in terms of volume of content consumed in the past three months: 1. 100% legal 2. Mix of legal and illegal 3. 100% illegal 4. Any illegal (combination of 2 + 3)  As well as the proportions of those who have done the activity in the past three months, the above metrics 1 to 4 are also reported among the total 12+ UK internet population and include median volumes <sup>8</sup> .	Legal and illegal proportions of total volume (incorporating physical format where relevant)

<sup>7</sup> The past three months was decided upon as the primary time-based metric for this study. Although this might have repercussions regarding respondents' ability to recollect past behaviour accurately, it was chosen for two reasons - 1) it ties in with the future quarterly DEA reporting requirement, and 2) it is intended to avoid bias in the data caused by seasonality (especially regarding the Christmas period).

<sup>8</sup> See THE LIMITATIONS OF CLAIMED BEHAVIOUR AND DATA RECONCILIATION on page 9.

Assessing consumer spend on categories and price sensitivity		
Spend	Proportion of population who have spent anything (and average spend in the past three months) on digital subscriptions, individual digital downloads, physical formats and other related areas such as gigs or cinema.	Total volumes and proportions of overall spend
Price sensitivity	Willingness to pay (music, films and e-books only) - For consuming individual files via a download service - For a subscription service (monthly charge)	

## Subgroup analysis

For each category the report details the main findings, followed by significant differences of interest (at the 95% level<sup>9</sup>, unless indicated otherwise) compared to 2015 results, among the following groups:

Category	Subgroups
Gender	Male, Female
Age	12-15, 16-24, 25-35, 35-44, 45-54, 55+
Socio-economic group (16+ only)	ABC1, C2DE
Presence of children in the household	Yes (including under 15-year-old respondents), No

## Trends

Throughout the report reference to the figures from the previous waves are made where significant changes have occurred in the results. Again this is assessed at the 95% level (unless otherwise stated) and is highlighted in the tables or charts where possible. Where significant changes have occurred, an attempt is made to explain why they may have occurred; in some cases this might be partly attributed to changes in the survey design (such as question wording).

<sup>9</sup> In statistics, a number that expresses the probability that the result of a given experiment or study could have occurred purely by chance. This number can be a margin of error ("The results of this public opinion poll are accurate to five per cent"), or it can indicate a confidence level ("If this experiment were repeated, there is a probability of ninety-five per cent that our conclusions would be substantiated"). Source: Dictionary of Cultural Literacy.

## The limitations of claimed behaviour and data reconciliation

Consumer research provides one source of insight into the extent and patterns of online content consumption. Other potential sources include analysis of ISP internet traffic, industry sales and revenue data, internet audience analysis and direct measurement of online activity (for example, by monitoring activity on file-sharing networks). On their own, none of these sources presents a complete picture of the market, and each has strengths and limitations. Data in this report (particularly consumption volumes and consumer spend) are not directly comparable to published industry sales data. Wide variations in notionally similar figures should be expected for many reasons, including:

- Differences in methodological approach
- Extent of market coverage
- Seasonality and timing of research
- Inclusion or otherwise of VAT
- Differences between consumer spend and sales receipts
- Inclusion of sales of second-hand material

It is also particularly important to note that figures in this report are based on the 'claimed' numbers collected from a random sample of people in this survey. These data were then grossed up to reflect the UK 12+ population. There was a wide variance in the numbers and this reflects the behaviour indicated by a subsection of the UK population 12+ within the time periods asked about.

Furthermore, questions on unlawful behaviour have a particular reliance on honesty, which is also likely to affect accuracy to some degree i.e. result in under-claim for unlawful behaviour. We have gone to significant lengths to ensure that honesty was encouraged (to ensure that the data collected were as accurate as possible) by using indirect lines of questioning when calculating unlawful activity. These measures are discussed in more detail in the technical appendix (Section 6) of this report.



## Reporting averages and the issue of outliers

When reporting on average volumes consumed (or shared) certain metrics are reported differently for this study. The two types of averages used are:

- The **median** - the middle value in a sample sorted into ascending order.
- The **mean** - the grand total divided by the number of data points.

For core metrics covering average volumes of files downloaded/streamed, paid for/obtained free, and obtained legally/illegally in the past three months, we report only on medians. The reason for this is that due to the nature of online behaviours, and the continuous scale for responses to these questions, the resultant mean scores are highly influenced by a few respondents with high levels of activity. As a result the mean volumes are noticeably volatile from one wave to the next for all content types covered, reducing the confidence with which we can infer trends for these figures. Alternatively, if we were to exclude outliers from the mean calculations this would ignore valid data from possible enthusiasts and hence cause a different issue. The median (middle number), on the other hand, has proved to be much more stable for these metrics.

For the two metrics covering physical ownership of digital content consumed, and the previous free consumption of paid-for content, we revert to the standard mean. The reason for this is that, in contrast to the above, the mean has remained stable from one wave to the next for these metrics. Furthermore, the median is zero in all cases, as the majority of those who consumed content online in the past three months didn't already own any in physical format, or previously consume paid-for content for free. Therefore, there is little value in reporting on the median here.

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# 4. Cross-category overview
































## 4.1 Digital content consumption



This section provides a summary of the key metrics and findings from the current wave of research (as described in Section 3.2).

### 4.1.1 Digital behaviour among internet users aged 12+ across all content types

The following table outlines the proportion of internet users aged 12+ who downloaded, streamed/accessed, or shared content for each of the six content types. The 'any' column is an aggregation across all of the content types (for example, if someone downloaded and streamed both music and films they would be counted only once within the overall proportion):

**Table 4.1.1a: Digital behaviour among internet users aged 12+ – all content types**








		 Music	 Films	 Programmes	 Computer Software	 Books	 Video Games	 Any
Base: all internet users 12+		4670	4670	4670	4670	4670	4670	4670
Download	Ever done	33%	16% 	15%	15%	15%	13%	51%
	Past 3 months	22% 	10%	10%	8%	10%	8%	39%
Stream or access	Ever done	40% 	29% 	41%	11%	11% 	12%	60% 
	Past 3 months	31% 	22% 	33%	6%	7%	8%	52% 
Share	Ever done	8%	3%	3%	3% 	2% 	3%	12%
	Past 3 months	6%	2%	1% 	2% 	1%	2%	9%
Download or Stream/ access i.e. Consumed	Ever done	48%	33% 	44%	20%	19%	19% 	67% 
	Past 3 months	37% 	25% 	35%	11%	12%	12%	59% 
Download, Stream/ access, or Share	Ever done	48%	33%	44%	20%	20% 	19%	67% 
	Past 3 months	37% 	25% 	35%	12%	13%	12%	59% 

 Sig. increase (from 2015)  
 Sig. decrease (from 2015)

- There was a significant increase in online activity to 67% consuming content in 2016 from 64% in 2015.
- Sharing of content has remained stable since 2015 with little change by individual content types and music still the most likely type of content to be shared.
- Music also continues to be the most downloaded content type of the six we explored; 33% of internet users had ever downloaded music. Music has shown a significant decline in downloading in a 3 month period since 2015. However it is in films where we see the biggest change with a significant increase in the amount of downloads to ever done from 14% in 2015 to 16 in 2016.
- Streaming was the consumption type where we saw the greatest change with significant increases at both the last 3 months and ever done levels. Both music and films showed significant increases here and this may well be tied to increases in the use of subscription services.
- The online consumption level of smaller content categories such as computer software, e-books and video games has remained broadly stable.

The following table outlines the **median** volumes of files downloaded, streamed/accessed or shared in the past three months (among those who had done each activity). The ‘any’ column shows aggregations across all three activities:

**Table 4.1.1b: Median number of files among 12+ internet users who consumed content (past three months)**

	 Music	 Films	 Programmes	 Computer Software	 Books	 Video Games	 Any
Base*	1216	506	537	417	527	439	2074
Downloaded	8	3	4	2	4	2	7
Base*	1605	1148	1672	343	332	469	2705
Streamed/ accessed	20	5	8	2	3	3	15
Base*	359	125	90**	96**	54**	124	531
Shared	3	2	3	2	2	3	3
Base*	1925	1271	1775	582	631	675	3040
Downloaded or Streamed/ accessed i.e. Consumed	20	5	10	2	4	3	20

\*All bases are among those who had done each activity in the past three months

\*\* Caution: bases lower than 100.

- Generally, the median figures have remained relatively stable across the content types since W5 - 2015. There appears to be a slight decrease in downloading (W5 2015 – 9 to W6 2016 7). However when combined with sharing which has remained stable the volume of files overall has remained consistent at 20 year on year.

### 4.1.2 Payment groups








We categorised people according to the proportion of digital content that they claimed to have paid for; we refer to these categories as ‘payment groups’.

The following table shows the incidences for each payment group in terms of content accessed in the past three months, across two different bases:

- Base 1 - all who downloaded or streamed/accessed each content type in the past three months.
- Base 2 - all internet users aged 12+.

We have included this second base because the proportion of people active in each category varies between content types; looking at payment categories across the 12+ internet universe allows us to make comparisons between them.

**Table 4.1.2: Payment groups – proportion who paid to consume content or did so for free (past three months)**

	 Music	 Films	 Programmes	 Computer Software	 Books	 Video Games	 Any
Base 1 - all who consumed	1925	1271	1775	582	631	675	3040
100% Paid	27%	33%	16%	25%	40%↓	42%↑	13%
Mix of Paid and Free	21%	21%↑	13%	19%	22%	25%	44%
100% Free	52%	46%	71%↓	56%	38%↑	33%↓	43%
ANY PAID	48%	54%	29%↑	44%	62%	67%↑	57%
ANY FREE	73%	67%	84%↓	75%	60%	58%↓	87%
Base 2 - 12+ internet users	4670	4670	4670	4670	4670	4670	4670
100% Paid	10%	8%	6%↑	3%	5%↓	5%↑	8%
Mix of Paid and Free	8%	5%↑	5%↑	2%	3%	3%	26%
100% Free	19%↑	11%	25%	6%	5%↑	4%↓	26%
ANY PAID	18%	13%	10%↑	5%	8%	8%	34%↑
ANY FREE	27%↑	17%↑	29%	9%	8%	7%	52%











Base 1: All who have downloaded or streamed/accessed types of content in the past three months  
 Base 2: All internet users (aged 12+)

- Since wave 5 in 2015 we have seen an increase in the proportion of internet users consuming paid content to just over a third (34%). This appears to be driven by the TV programme and gaming categories which have both seen significant shifts amongst consumers.
- Across all content types, and among all internet users aged 12+, the ‘mix of paid and free’ group remained stable and to the same levels as seen in W2 (23%). Year on year we have also seen stability in the proportion consuming content for free (W5 2015 – 51% to W6 2016 – 52%).
- Of those who downloaded or accessed music content of any type during the past three months, the great majority (73%) consumed at least some of it for free<sup>10</sup> and this is consistent with last year.
- With the increase in those doing any payment for video games and TV programmes we have seen a reciprocal decrease in the proportion consuming them for free.

### 4.1.3 Existing ownership, and free access to digital content before purchasing

The following table displays a summary of key metrics about prior ownership in physical format of content consumed online in the past three months.

**Table 4.1.3a: – Prior physical ownership of content consumed in the past three months**

	 Music	 Films	 Programmes	 Computer Software	 Books	 Video Games	 Any
Base*	1925	1271	1775	582	631	675	3040
100% owned in physical format	5%	3%	2%	10% 	3%	8%	2%
Any owned in physical format	30% 	18%	11%	16%	17%	21%	32%
None owned in physical format	65% 	79%	87%	74%	80%	71%	66%
Mean number*	14	1	3	2	1	2	11

\*All bases are among those who had done each activity in the past three months










\*Mean number is the average number of items physically owned prior to purchasing content online in the past three months (including zeros).

<sup>10</sup> Note that ‘free’ does not necessarily mean that the content was consumed ‘illegally’.

- Physical ownership of content consumed online in the past three months has significantly changed only in the Music category since W5 2015 with an increase of 5% points of those saying they owned in a physical format to 35%.
- 100% ownership in the physical format has changed significantly for computer software up to 10% making it now the outright highest ranked category, last wave it was equal to video games at 6%.
- Two-thirds of consumers do not own content in any physical format before consuming it online.

The following table shows the proportion of people who claimed to have previously consumed content online for free which they went on to pay for (in either digital or physical format).

**Table 2.1.3b: Consuming online content for free before purchasing in the past three months**

	 Music	 Films	 Programmes	 Computer Software	 Books	 Video Games	 Any
Base*	1640	1659	1206	770	2154	1082	5310
100% previously consumed for free	14%	11%	19%	25%	6%	15%	3%
Any previously consumed for free	37%	23% 	34%	43%	15%	31%	17%
None previously consumed for free	63%	77% 	66%	57%	85%	69%	82%
*Mean number	21	1	3	3	1	2	8

 Sig. increase (from 2015)

 Sig. decrease (from 2015)

\*All bases are among those who had paid for types of content (physical or digital) in the past three months (the base for 'any' is all aged 12+ in the UK).

\*Mean number is the average number of items consumed online for free before purchasing in the past three months (including zeros).


















- The percentage of those who had previously consumed paid-for content for free has remained stable across all the categories with no significant changes since previous wave.
- Across the content types, the majority (82%) of the content that is paid for online was not consumed for free previously.
- We have seen a significant increase in those saying they previously consumed any content for free in the film category to 23% (wave 5 2015 – 20%).

## 4.2 Levels of copyright infringement

### 4.2.1 Legality groups

As with the payment group metrics outlined in Section 2.1.2, we can create ‘legality’ groups by assessing the proportion of online content they each consumed legally<sup>11</sup>:

**Table 4.2.1a: Legality groups – proportion who consumed content legally/ illegally (past three months)**

	 Music	 Films	 Programmes	 Computer Software	 Books	 Video Games	 Any
Base 1 - all who consumed	1925	1271	1775	582	631	675	3040
100% legal	80% 	76%	80%	81%	88%	82%	75%
Mix of legal and illegal	7% 	8%	8%	5%	5%	7%	16%
100% illegal	13%	15%	12%	14%	7%	10%	9%
ANY ILLEGAL	20% 	24%	20%	19%	12%	18%	25%
Base 2 - 12+ internet users	4670	4670	4670	4670	4670	4670	4670
100% legal	29%	19% 	28%	9%	11%	10%	44% 
Mix of legal and illegal	3%	2%	3% 	1%	1%	1%	10%
100% illegal	5%	4%	4% 	2%	1%	1%	5% 
ANY ILLEGAL	8%	6% 	7%	2%	2% 	2%	15%

Base 1: All who have downloaded or streamed/accessed types of content in the past three months.

Base 2: All internet users (aged 12+)

- There has been no change in the proportion of 12+ content consumers who have infringed for any of the categories: 25% of consumers of these categories online have consumed some illegal content, 9% exclusively illegal content.
- The highest levels of infringement are for the music, TV programmes and film categories at 8% of all internet users, 7% and 6% respectively.
- Looking at that another way, 24% of people aged 12% who have consumed films online have done so illegally, and 20% for both music and TV programmes.
- The lowest levels of infringement are within the books category at 11% of all those aged 12+ who have downloaded or streamed/accessed books in the past 3 months.

<sup>11</sup> We derived figures for illegal files by looking at differences between claimed total number of files with claimed number of files obtained ‘legally’ in the past three months. Illegal streaming activity is defined as content that has not been accessed or streamed from legal sources. For music, films and the ‘any’ net, we have included paid illegal.

- The proportion of people accessing music content online that have done so exclusively via legal means has significantly increased to 80%, with a drop in the proportion who have consumed a mix of legal and illegal content (now 7%) This now means that proportionally music is no longer the most infringed content type with films now the most infringed and has also led to a drop in illegal content use at the total level.

Table 4.2.1b shows the demographic profile of ‘any illegal’ (infringers) versus ‘100% legal’ (non-infringers):

**Table 4.2.1b: Demographic profiles of infringers versus non-infringers**

		All content consumers	Any illegal (Infringers)	100% legal (non-infringers)
<b>Base</b>		<b>3040</b>	<b>756</b>	<b>2284</b>
Gender	Male	51%	52%	50%
	Female	49%	48%	50%
Age	12-15	9%	10%	8%
	16-34	45%	53%	42%
	35-54	32%	28%	33%
	55+	14%	10%	16%
Socio-economic group <sup>12</sup>	ABC1	67%	58%	71%
	C2DE	33%	42%	29%

Base: All who have downloaded or streamed/accessed any content type in the past three months (3040)








- Across all content types, those who downloaded or streamed illegally were skewed towards those aged under 35 (63%) and ABC1 (58%).
- Non-infringers were more likely to be ABC1 (73%) but there was little difference in terms of gender or age.
- We also looked at the penetration levels among demographic groups and this wave found similar levels of infringement between SEC C2DE (12%) compared to SEC ABC1 (13%).

12 Socio-economic group is not included for 12-15 year olds, so this profile is among 16+ year olds.



The following table shows the median number of items downloaded or streamed illegally, split out by the legality groups:

**Table 4.2.1c: Legality groups – median content items consumed illegally in the past three months**

	 Music	 Films	 Programmes	 Computer Software	 Books	 Video Games	 Any
Base:	391	301	361	116	81*	119	757
100% illegal	10	3	4	2*	**	2*	4
Any illegal (Infringers)	10	4	5	2	3*	2	9

Base: All who have downloaded or streamed types of content illegally in the past three months

\*Caution low base (under 100). \*\*Bases too small to analyse further (under 50)

- Across all content types the median number of files downloaded or streamed illegally among those who had done so was nine.
- Median volumes were highest for music (10 tracks), while computer software and video games were lowest.

The following table shows the incidence of services used in the past three months to consume or share any type of content. It compares infringers ('any illegal') with non-infringers ('100% legal').

**Table 4.2.1d: Use of services for consuming or sharing content in the past three months**

<span style="color: green;">↑</span> Sig. increase (from W4) <span style="color: red;">↓</span> Sig. decrease (from W4)	All who consumed or shared content in past 3 months	Any illegal (infringers)	100% legal (non-infringers)
<b>Base</b>	<b>3040</b>	<b>756</b>	<b>2284</b>
YouTube	49%	58% <span style="color: red;">↓</span>	46%
BBC iPlayer	35%	29%	37%
Amazon (NET)	29%	25%	30%
Netflix	26%	24%	27%
iTunes / Apple Music (NET)	24%	18%	26%
Spotify	19% <span style="color: green;">↑</span>	16%	19%
iTunes / App Store / iBookstore / Apple Store	17% <span style="color: red;">↓</span>	13% <span style="color: red;">↓</span>	19%
Facebook	17% <span style="color: red;">↓</span>	22% <span style="color: red;">↓</span>	15%
4OD	16%	15%	17%
Amazon / Amazon mp3 / Kindle	16%	15% <span style="color: red;">↓</span>	16%
ITV Player	16% <span style="color: red;">↓</span>	15%	16%
Google (search engine)	15% <span style="color: red;">↓</span>	20% <span style="color: red;">↓</span>	13%
Amazon Prime	14%	12%	15%
Email	10% <span style="color: red;">↓</span>	14% <span style="color: red;">↓</span>	8%
Sky Go	10%	8%	10%
Apple Music	9%	6%	10%
Demand 5	9% <span style="color: green;">↑</span>	8%	9%
Google Play / Android Marketplace	8%	7%	8%
youtube-mp3.org	7%	11%	6%
Amazon Music	7%	6%	7%
Microsoft	6%	6%	6%
Now TV	6%	6%	6%
uTorrent	6%	12% <span style="color: red;">↓</span>	3%
Steam	5%	6%	5%
Xbox Live	5%	5%	5%
Pirate Bay	4%	11%	2%
TV Catchup	4%	5%	3%
<b>Peer-to-peer<sup>13</sup> (NET)</b>	10% <span style="color: red;">↓</span>	23%	6%
<b>Cyberlockers<sup>14</sup> (NET)</b>	4%	6% <span style="color: red;">↓</span>	3%
<b>Mean number of services used</b>	3.8	4.2	3.7

Base: All who have downloaded, streamed/accessed or shared any of the six content types in the past three months (3040)

13 Peer-to-peer (net) comprises Bittorrent software, uTorrent, Pirate Bay, Isohunt, Limewire, eDonkey/eMule, Gnutella, KickAssTorrents, Torrentz, and Sopcast.

14 Cyberlockers comprises Rapidshare, MediaFire and YouSendit.

- Half of those who consumed or shared any content online in the past three months used YouTube (49%), followed by the BBC iPlayer and Amazon services. BBC iPlayer service usage has declined from 44% in 2013 to 37% 2015 to 35% in 2016, but remains an important source, particularly for the non-infringers.
- Spotify has shown a significant increase in the proportion who use the service since 2015 rising from 16% to 19%.
- Use of Peer2Peer (P2P) continues to drop from 12% to 10% at the total level and 26% to 23% among infringers. We have also seen a significant drop in the use of YouTube among infringers.
- Those who infringed used 4.2 (down from 5.6 in 2015) services on average, compared to 3.7 (up from 3.4 in 2015) for those who consumed 100% legally.

#### 4.2.2 Content consumption volumes

Whilst metrics outlined so far have focused on results at an individual respondent level, the following table outlines total consumption volume estimates for each of the content types (in the past three months, rounded to the nearest million in each case<sup>15</sup>).







The volumes are calculated using the median scores as per the rationale set out previously in the research notes section.

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15 Due to rounding (to the nearest million), not all figures e.g. paid + free will add up to the total exactly.







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**Table 4.2.2: Volume of content consumed**

Volumes are in millions		Total	Physical format	Digital format
 Music	<b>Volume</b>	444m	88m	355m
	<b>% of total</b>	54%	20%	80%
 Films	<b>Volume</b>	86m	23m	63m
	<b>% of total</b>	11%	27%	73%
 Programmes	<b>Volume</b>	153m	17m	136m
	<b>% of total</b>	19%	11%	89%
 Computer Software	<b>Volume</b>	18m	5m	13m
	<b>% of total</b>	2%	28%	72%
 Books	<b>Volume</b>	83m	55m	28m
	<b>% of total</b>	10%	67%	33%
 Video Games	<b>Volume</b>	32m	15m	18m
	<b>% of total</b>	4%	45%	55%
	<b>Total</b>	<b>816m</b>	<b>203m</b>	<b>613m</b>







- Digital format consumption contributes three quarters of the overall volume (613m). The digital volumes have increased by 5.5% percentage points since 2015.
- The majority of content is consumed in digital format across all categories, except for e-books where physical content still outweighs digital.
- Music was by far the most-consumed content type, both digitally (355 million tracks) and physically (88 million tracks) over the three-month period. This was largely driven by the fact that we assessed individual tracks, not albums. There was a shift of nearly 10 million in digital volumes for Music since W5 2015.
- Films also showed an increase in volumes of just over 5 million and a more notable shift was seen for TV programmes of a 16 million increase over the last year.

**Table 4.2.2a: Paid vs. free content in Digital formats**

Volumes are in millions		Digital format	
		Paid content	Free content
 Music	Volume	87m	268m
	% of total	25%	75%
 Films	Volume	24m	39m
	% of total	38%	62%
 Programmes	Volume	23m	113m
	% of total	17%	87%
 Computer Software	Volume	4m	9m
	% of total	34%	66%
 Books	Volume	14m	14m
	% of total	51%	49%
 Video Games	Volume	7m	10m
	% of total	41%	59%

- Unsurprisingly there are big differences in paid and free content for the music, TV programmes and film, with free content volumes being much higher than paid content volumes. For computer software we saw around two-thirds was free content. This wave books were close to a 50:50 split (51% paid and 49% free). For video games we actually see volumes of paid content are higher than free at 59%.
- In terms of volumes, free digital music content stands out with 268 million tracks consumed online for free.
- When compared to wave 5 the biggest change in free consumption was for TV programmes rising from 90m in 2015 to 115m in 2016.

Table 4.2.2b: Legal vs. Illegal content in Digital formats

Volumes are in millions		Digital format	
		Legal content	Illegal content
 Music	Volume	278m	78m
	% of total	78%	22%
 Films	Volume	40m	24m
	% of total	63%	37%
 Programmes	Volume	109m	27m
	% of total	80%	20%
 Computer Software	Volume	10m	3m
	% of total	79%	21%
 Books	Volume	23m	5m
	% of total	82%	18%
 Video Games	Volume	13m	4m
	% of total	76%	24%

- We estimate that 78 million music tracks were accessed illegally online in the last 3 months. The music category has the highest volume and proportion of infringement compared to the other categories.
- The level of infringement has declined in the music category from those seen in 2015. In the previous wave we found an estimate of 96 million tracks being accessed illegally in the music category which has now reduced to 78 million.
- Both Film and TV programme categories so increases in the levels of illegal content consumed while other categories remained more stable.







## 4.3 Consumer spend

This section outlines the main findings for consumer spend across the six content types.

### 4.3.1 Quarterly consumer spend among 12+ year olds

The table below shows, at a respondent level, the average spend by content types in the past three months across a number of different means of expenditure. It also shows the proportion of the entire UK population (i.e. not just internet users) aged 12+ who claim to have spent any money on these items:

**Table 4.3.1a: Average consumer quarterly spend among 12+ year olds – all content types**

	 Music		 Films		 Programmes		 Computer Software		 Books		 Video Games	
	Mean	%	Mean	%	Mean	%	Mean	%	Mean	%	Mean	%
Purchases/rentals in physical format	£5.23	21% ↑	£4.43	20%	£3.32	14%	£3.36	9%	£8.07	34%	£5.64	14%
Individual digital purchases	£1.79	11%	£0.74	5% ↑	£0.93	5% ↑	£1.30	3%	£0.87	6% ↑	£1.95	5%
Online Subscriptions	£3.17	8% ↑	£1.37	7% ↑			-	-	-	-	-	-
Other	£11.90	17%	£9.27	36% ↑	£1.73	8% ↑	-	-	£1.52	7%	£1.48	7% ↑
<b>TOTAL<sup>16</sup></b>	<b>£22.06</b>	<b>32% ↑</b>	<b>£17.07</b>	<b>45%</b>	<b>£5.98</b>	<b>18%</b>	<b>£4.66</b>	<b>11%</b>	<b>£10.46</b>	<b>37%</b>	<b>£9.08</b>	<b>17%</b>

**Mean** is the average spend among all 12+ year olds in the UK  
**%** is the proportion of 12+ year olds in the UK who spent anything on the content type  
 Base: All 12+ year olds in the UK (5310)







- Across the six content types, music still has the highest average spend per person in the UK aged 12+, at £22.06, which in itself is a significant increase over the £20.28 average spend in 2015.
- The film category has the next highest average spend at £17.07, in line with what was seen in 2015.
- A higher proportion of people claimed to have spent money in the past three months, on films (45%) and books (37%) than on other content types. This was also the case in 2015.
- 21% of those aged 12+ in the UK claimed to spend money on physical music (on CD, vinyl or tape) during the period, compared to 11% for digital music (downloaded or streamed) and 8% for online music subscriptions. The percentages for physical music and online subscriptions have both increased significantly compared to 2015.

<sup>16</sup> Note that the total percentages add to less than the individual percentages added together due to duplication i.e. if someone purchased in physical format and online they only count once.

- As was the case for previous years, average spend on physical products was substantially higher than on digital for all content types.
- For both music and film, average spend on 'other' (including cinema/concerts and merchandise) was substantially higher than spend on physical and digital content.
- TV programmes (£5.98) and computer software (£4.66) had the lowest average spend across the six content types. The latter also had the lowest proportion of the population spending anything in the three-month period (11%).
- There have been small changes in the average spend per category with only Music showing a significant change to £22.06 from £20.28 in 2015. An increase in spend on subscription services from £1.90 in 2015 to £3.17 in 2016 accounts for a large proportion of this increase for Music.

The following table shows the average spend for each content type (see previous charts for details of spend coverage) among the legality groups.

**Table 4.3.1b: Average consumer quarterly spend among legality groups – all content types**

	 Music	 Films	 Programmes	 Computer Software	 Books	 Video Games
100% legal	£53.19 (1534)	£41.84 (970)	£11.27 (1414)	£29.17 (466)	£28.61 (550)	£50.65 (556)
Mix of legal and illegal	£61.40 (148)	£60.04 (114)	£20.84 (143)	£12.46 (116**)	£26.65 (81**)	£78.84 (62*)
100% illegal	£18.74 (243)	£13.11 (187)	£2.55 (218)			£16.47 (57*)

Bases for individual groups are included in brackets.

\*Caution: base under 100

\*\*Base too low to analyse individual legality groups (figures shown for 'any illegal')



- Among those that are 100% legal we have seen an increase in spend for all categories except TV programmes which has stayed stable and gaming which has declined by c.£3 since 2015. The biggest increase in spending was for films which increased from £21.14 to £41.84 over the last year.
- Among those that infringe we have seen a decline in spending across all categories since last year.

**Table 4.3.2: Total quarterly spend estimates – all content types**

	Music		Films		Programmes		Computer Software		Books		Video Games	
	Spend	%	Spend	%	Spend	%	Spend	%	Spend	%	Spend	%
Purchases/rentals in physical format	£280m	24%	£237m	28%↓	£178m	56%↑	£180m	72%↓	£433m	77%	£302m	62%↓
Individual digital purchases	£96m	8%	£39m	5%	£50m	16%↑	£69m	28%↑	£46m	8%↓	£104m	21%↑
Online Subscriptions	£101m	9%	£61m	8%↑			-	-	-	-	-	-
Other	£637m	54%↓	£496m	59%	£93m	29%↓	-	-	£81m	15%	£79m	16%
<b>TOTAL<sup>8</sup></b>	<b>£1,183m</b>		<b>£847m</b>		<b>£320m</b>		<b>£250m</b>		<b>£560m</b>		<b>£486m</b>	

↑ Sig. increase (from 2015)  
↓ Sig. decrease (from 2015)

**Spend** is the total amount spent across all 12+ year-olds in the UK  
% is the proportion of the total spend attributed to the specific category  
Base: All 12+ year olds in the UK (5310)

- Music had the highest overall quarterly spend across the content types, at an estimated £1,183m, followed by films (£847m). Spend on music in physical format during this period (£280m) was more than that generated from digital music (approximately £265m for individual purchases and online subscriptions combined). Online subscriptions accounted for spend of £169m in the latest wave of research compared to £101m in the previous wave.
- In absolute terms, the £265m spent on digital music was by far the highest digital spend across the six categories evaluated, compared to films (£112m), computer software (£69m), and video games (£104m). Digital spend was lowest on books, at £46m (down from £56m) followed by £50m for TV programmes. Digital spend on computer software has risen from £51m to £69m.

17 \* Other includes: Music = Concerts/gigs (£547m 46%) Merchandise (£90m, 8%) Films = Cinema (£429m, 51%) Merchandise (£67m, 8%), Pay-TV purchases (£68m, 8%) TV programmes = Merchandise (£93m, 29%).

- Spend on physical content was highest for books (£433m), followed by video games (£302m). In line with previous findings, TV programme had the lowest spend at £178m (down from £189m).
  - The overall spend in the video game category has dropped from the previous wave (£549m down to £486m) mainly driven by the decline in physical formats (down £68m). This had seen significant growth in the previous wave.
  - Spend is also down for the TV programmes category – down £38m to £320m. This decline in spend is mainly driven by the 'other' (merchandise) which had seen an increase in the previous wave of this research.
-

# 5. Attitudes towards digital activities and copyright infringement

## 5.1 Motivations for general online activities

The survey included several questions around consumer attitudes with a view to uncovering primary motivations for participating (and also not taking part, in the case of downloading) in the activities covered in the survey i.e. downloading, streaming/accessing, and sharing content.

The following tables show the ranked prompted responses amongst those claiming to have participated in these activities in the past three months. We have included only those answers that gained a response rate of 4% or more.

Although not displayed in the following tables, it is worth noting that motivations for general online behaviour were similar, both for those who had consumed any illegal content, and for the general internet population, since these questions focused on the general acts of downloading, streaming and sharing (without any reference to legality). The sub-section following this one focuses on motivations for lawful and unlawful activity.

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**Table 5.1a. Motivations for downloading (or not) content online**

DOWNLOADING CONTENT ONLINE	
<b>You indicated you have downloaded [CONTENT TYPES] in the past three months. Generally, what would you say are your personal reasons for downloading these types of files rather than buying a physical version such as a CD, DVD, Blu-ray, paper, etc.?</b>	
Base: All who had downloaded any of the six content types of interest in the past three months (2074)	
It's easier/more convenient	59% ↓
It's quicker	52%
It's cheaper	41%
I can access them more easily on the devices I have	34%
I can get them for free	31%
I can access them on the go	19%
The quality isn't noticeably different	16%
It's more up to date	14%
No physical version available	11%
<b>What are the reasons that you have not downloaded any files in the past three months?</b>	
Base: All with internet access who'd not downloaded any of the six content types of interest in the past three months (3032)	
I'm not interested	67%
I prefer to have a physical copy	17% ↑
I'm not sure how to do it	12%
I don't own a computer / device capable of downloading	10%
I fear they may have viruses/ malware/ spyware	8%
They are too expensive	8%
I fear that they could be illegal	6%
I prefer to stream/access (without downloading) files	6%

↑ Sig. increase (from 2015)

↓ Sig. decrease (from 2015)

**Table 5.1b. Motivations for streaming or accessing content online**

STREAMING / ACCESSING CONTENT ONLINE	
You indicated you have accessed or streamed [CONTENT TYPES] in the past three months. What are your personal reasons for doing this?	
Base: All who had streamed or accessed any of the six content types of interest in the past three months (2705)	
It's easy/convenient	58%
It's quick	47%
It's free	43%
It's easy to do	39%
For entertainment	30%
It's quicker than downloading	21%
It means I don't have to download them	21%
To watch TV programmes I have missed	21%
It's cheaper than downloading	13%
It means I can try something before I buy it	13%

**Table 3.1c. Motivations for sharing content online**

SHARING CONTENT ONLINE	
You indicated you have shared [CONTENT TYPES] in the past three months. What are your personal reasons for doing this?	
Base: All who had shared any of the six content types of interest in the past three months (531)	
It's easy to do	46%
It's what everyone does	35% ↑
It's only fair	27%
My friends / family can't access the files themselves	16%
It gives me status	14%
I should be able to share my content with whomever I choose	14%

- Since the last wave in 2013, there has been little change in the motivations for general online content activities.
  - “Ease/convenience” remains the prime motivator both for downloading (59%) although there has been a decline since 2015 in the proportion of people citing it as their reason for downloading.
  - It is also quoted as the main motivation for streaming/accessing (58%) content.
  - Speed (i.e. “it’s quick”) was also highly cited – by 52% among downloaders and 47% among streamers. These responses have been at similar levels across all four waves conducted so far.
  - The ability to access content for free is still more important to streamers (43%) than to downloaders (31%).
  - The majority (67%) of those who said they didn’t download were simply not interested, but apart from this, the preference for owning a physical copy was also a major reason (15%).
  - The preference for owning a physical copy has increased significantly (to 17%) from 2015, although this was a measure that had declined in that wave of research (previously 23%).
  - Amongst those who have shared files, the ease of sharing (“easy to do”) was the main reason given (46%). Claiming that “It’s what everyone does” as a rationale increased significantly in the latest wave of research to 35%
-

## 5.2 Attitudes towards online content

Respondents were asked the following, in relation to their consumption of digital media.

*To what extent do you agree or disagree with each of the following statements?*

1: Strongly agree

2: Slightly agree

3: Neither agree nor disagree

4: Slightly disagree

5: Strongly disagree

The table below outlines the proportions who agree (strongly or slightly) amongst all those with internet access (aged 12+), and then amongst the three legality groups (aggregated across all six content types):

**Table 5.2: Proportion of legality groups who agree with statements**

Q.4 To what extent do you agree or disagree with each of the following statements?	All aged 12+ with internet access	100% legal	Mix of legal and illegal	100% illegal
Base	4670	2280	511	245
Content that you download or access online should be cheaper than the equivalent purchased in a physical format (e.g. a CD, DVD, Blu-ray, VHS, books or magazines)	59%	73%	65% ↓	56%
It is wrong to access content online without the creator/artist's permission	52%	62% ↓	41%	39%
The rules governing what you can and can't do with content you purchase should be the same for both physical and online formats	47%	54% ↓	49%	38%
If you had paid for a digital file you should then be able to share it with others	39%	44%	52%	24% ↓
It is easy to find content on the internet for free that would usually be paid for	37%	42%	60%	49% ↑
I think you should be able to download or access the content you want for free from the internet	33%	34%	49%	28% ↓
The price you pay to download or access content online is generally about right	30% ↑	39%	33%	26%
I find it difficult to find legal content online	18%	19%	30%	15% ↓

There were some significant changes in the levels of agreement with the above statements between 2015 and 2016.

- The majority of those aged 12+ with internet access, agreed that online content should be cheaper than the equivalent purchased in a physical format (59%). However, the figure was much lower among those who consumed all their content illegally (56%) than among those who consumed legal content (73%).
  - There has been a significant increase in the proportion (to 30%) of those aged 12+ with internet access agreeing to the statement that *“the price you pay for downloaded or accessed content online is about right.”*
  - The level of agreement *“the price you pay for downloaded or accessed content online is about right”* remained lower among those who consumed only illegal content (26%) than among the other two groups (33%-39%).
  - The ‘mix of legal and illegal’ group was the most likely to agree that *“you should be able to share digital files if you have paid for them”* (52%). Agreement with this statement was lowest (24%) amongst those who consumed only illegal content and had declined in the latest period.
  - Sixty per cent of ‘mix of legal and illegal’ group also agreed that *“it is easy to find content on the internet (that you usually pay for) for free.”*
  - Both infringing groups were less likely to think *“it is wrong to access content online without the creator’s/artist’s permission”* – 41% and 39% respectively compared to 62% among those who consumed all their content legally – the latter figure had declined significantly in the latest period.
  - There has been a significant decline in the proportion of people who consumed all their content legally saying that *“It is wrong to access content online without the creator/artist’s permission”*. The 62% who said so is still much higher than the 41% and 39% of the two infringers groups who agreed with that statement.
-



## 5.3 Motivations for lawful and unlawful behaviour

Further questions on attitudes were asked in order to assess the primary motivations for lawful and unlawful behaviour, in an attempt to uncover factors that might encourage those who currently infringe to stop.

Respondents who paid for any content were asked:

*You indicated you have paid to download or stream/access [CONTENT TYPES] in the past three months. What were your personal reasons for doing this rather than using services where you could have got them for free?*

It is important to take into account that when we ask about the use of paid services over free ones we are not necessarily implying that the latter are illegal – as we have seen for many of the content types, free services such as YouTube, BBC iPlayer and Facebook are particularly popular when it comes to consuming and sharing content.

However, as well as assessing responses among those who simply paid for any content, it is also possible to compare the responses of those who consumed content both legally and illegally with those who consumed content only legally. Table 3.3a displays the main reasons given for paying for online content:

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**Table 5.3a. Motivations for using paid services**

	Any paid	100% legal	Mix of legal and illegal
Base	1724	1407	315
It's easier/more convenient	50%	51%	45%
It's quicker	42%	42%	43%
I don't want to use illegal sites	32% ↓	35% ↓	19%
I want to support creators/industry	24%	23%	29%
I think it's morally wrong to use illegal sites	22%	25%	11%
I fear they may have viruses/ malware/ spyware	22%	24%	16%
They are better quality	21%	22%	15%
I don't think it is right to get them for free	17%	19%	10% ↓
I prefer to pay	16%	17%	12%
I can afford to pay	16%	18%	7%
I fear I might be caught	9%	7%	14%
I'm unaware of the free services available	7% ↓	8%	6%
I don't know how to use the free services	5%	5%	5% ↑
<b>Average number of reasons cited</b>	<b>2.9</b>	<b>3.0</b>	<b>2.3</b>

- The reasons given for using paid services are very similar to those seen in the previous wave of research.
- Convenience was the most commonly-cited reason both amongst those who accessed all of their content legally and among those whose consumption was partly illegal (50% v 45%).
- However, there were marked differences among the two legality groups across the other motivations. Those who consumed content entirely legally were much more likely (35%) than those who infringed (19%) to say that they did not want to use illegal sites. The 35% represents a decrease from last year however:
- 25% of those use only used paid service said that they thought it is morally wrong to use illegal sites, compared to 11% of people who consumed some illegal content. Unsurprisingly, 7% of those using paid and illegal services said that they “don't think it is right to get content for free”, compared to 18% of those only using legal sources.
- Users who access only paid services were just as likely as those using some illegal services to say that they used paid services because they are quicker (42% v 43%).
- Those who use illegal and paid services are more likely to use paid services because they are better quality (29% v 23% of those who only use legal services).

Respondents who indicated that they had infringed in the past 3 months were asked:

*You indicated you have downloaded or streamed the following types of files in the past three months which you think may have been done so illegally [CONTENT TYPES]. What are your personal reasons for doing this?*

The main reasons given for unlawful consumption of content were as follows:

**Table 5.3b. Motivations for unlawful consumption of content online**

	Any illegal	100% illegal	Mix of legal and illegal
Base	756	243	513
It's free	49%	44%	52%
It's easy/convenient	45%	35%	50%
It's quick	42%↑	36%	45%
It means I can try something before I buy it	17%	7%	23%
Because I can	16%	10%	19%
I can't afford to pay	14%	8%	18%
I think legal content is too expensive	11%	4%↓	15%
It's what my friends or family do	7%	6%	8%
I already owned the content in another format	7%	3%	10%
I don't want to wait for content to become available on legal services	7%	3%	9%
The files I want are not available on legal services	6%	2%	8%
I've already spent enough on content	6%	6%	7%
I've already paid to see it/them at the cinema/in concert etc.	5%	2%	6%↓
I don't think I should have to pay for files online	5%	5%	5%
The industry makes too much money	5%↑	2%↓	7%
<b>Average number of aspects cited</b>	<b>2.6</b>	<b>2.0</b>	<b>3.1</b>

- In 2015 we reported a decrease in the average number of reasons given for consuming illegal content since W4 in 2013. In 2016 we have seen those numbers come back up slightly for all legality groups but still below the levels we saw in 2013 (average for all: 2013 – 3.1, 2015 – 2.5 and 2016 – 2.6).
- Overall, the free aspect (49%) is the main motivation for illegal consumption, and this has been the case in all six waves of the research.
- Convenient (45%) and quick (47%) were also cited as motivations with significant increases for both in 2016.
- Generally, responses were higher for those in the ‘mix of legal and illegal’ group than for the ‘100% illegal’ group, and this is reflected in the average number of reasons cited by each group (3.1 v 2.0 respectively). This is particularly noticeable for the statement “*It means I can try something before I buy it*” cited by 23% of the ‘mix of legal and illegal’ group compared to 7% of the ‘100% illegal’ group.

Infringers were also asked:

*And which, if any, of the following do you think would make you stop downloading or streaming files illegally?*

**Table 5.3c. Aspects that would encourage stopping accessing content illegally online**

	Any illegal	100% illegal	Mix of legal and illegal
Base	756	243	513
If legal services were cheaper	24%	21% ↑	26% ↓
If everything I wanted was available legally	20%	13%	24%
If it was clearer what is and isn't legal	19%	16%	21%
If I thought I might be sued	16%	14% ↑	17%
If I thought I might be caught	15%	9%	18%
If legal services were more convenient / flexible	14%	6%	18% ↑
If everything I wanted was available legally online as soon as it was released elsewhere	14%	7%	18%
Nothing would make me stop	11%	14%	10%
If legal services were better	11%	6%	14%
If my ISP sent me a letter saying they would suspend my internet access	11% ↓	5% ↓	14%
If my ISP sent me a letter saying my account had been used to infringe	10%	10%	9% ↓
If I knew where to go to see if something was illegal or not	10%	7%	12%
If my friends or family were caught	10%	5%	12%
If a subscription service I was interested in became available	9%	5% ↓	11% ↓
If everyone else stopped doing it	9%	6%	11%
If my ISP sent me a letter saying they would restrict my internet speed	9% ↓	5%	12%
If there were articles in the media about people being caught	7%	5%	9%
<b>Average number of aspects cited</b>	<b>2.6</b>	<b>1.9</b>	<b>2.9</b>

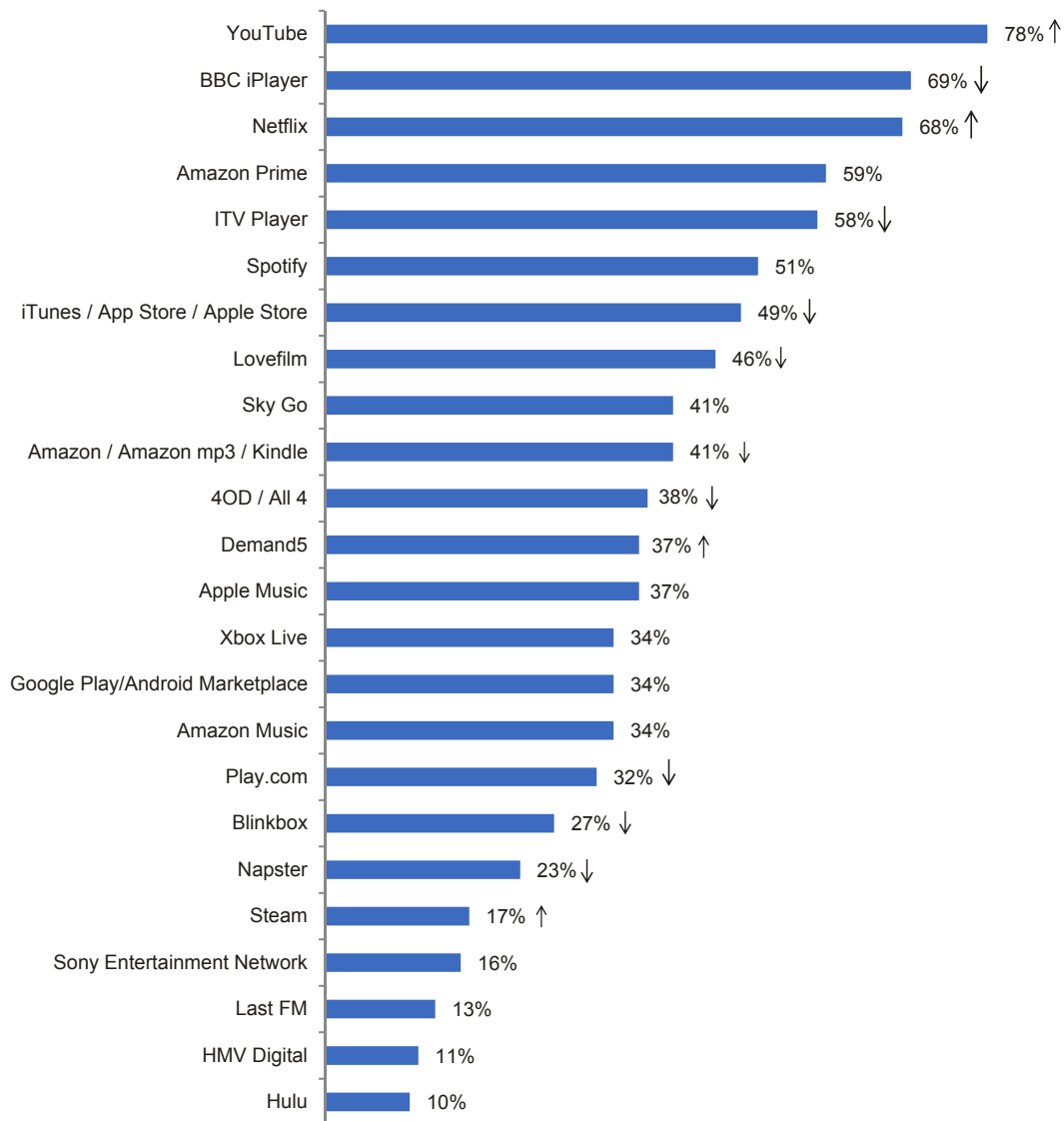
- The top four most commonly-cited factors were all themed around making legal services more attractive, with the top response being “if legal services were cheaper” (24% of infringers). This was higher among those who consumed both legally and illegally (26%) than among the 100% illegal group (21%) but the former exhibited a significant increase in 2016 and the latter group a decrease.
  - The threat of letters from ISPs had comparatively less effect on predicted behaviour;
    - 11% of infringers said that they would be put off “if my ISP sent me a letter saying they would suspend my internet access” although this 11% represents a significant decline vs 2015
    - 10% of infringers “if my ISP sent me a letter informing me my account had been used to infringe”
    - and 9% “if my ISP sent me a letter saying they would restrict my internet speed” – again, a decline compared to the previous year.
    - Each of these responses were significantly lower amongst internet users who consumed content exclusively illegally although there has been a significant increase in those saying that “If legal services were cheaper” and ‘If I thought I might be sued;
  - 11% of infringers said that “nothing would make me stop”. This is 14% of those who exclusively consume illegal content.
  - Similarly to the motivations for using illegal content we have seen a slight increase across legality groups for the reasons why people would stop year on year but still under the levels we saw in 2013, (average for all: 2013 – 2.8, 2015 – 2.3 and 2016 – 2.6).
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## 5.4 Awareness of lawful/licensed services

The following chart shows prompted awareness of lawful / licensed sites<sup>18</sup> offering any of the six content types covered in this survey. Note that Amazon Prime, Amazon music, Apple Music and Hulu were added to the list of sites in 2016.

The figures below include people who also indicated that they had used any of these services in the past three months.

**Chart 5.4a: Proportion of internet users aged 12+ aware of lawful/licensed online services (base size: 4670)**



<sup>18</sup> Note that unlawful activities are possible on some of these services (such YouTube, iTunes, Google Play, etc).

- YouTube, BBC iPlayer retain their position as the top two services that internet users are aware of: YouTube shows a significant increase in awareness, with a decline for BBC iPlayer.
- Amazon Prime was added to the list of sites in 2016 and achieved the fourth highest level of awareness at 59%. The other new additions achieved the following levels of awareness: Apple Music (37%), Amazon Music (34%), and Hulu (10%).
- Netflix has maintained its third position in the ranking with an increased awareness of 68%.
- ITV Player (62%) has seen significant declines from 2015 as has Love Film, Amazon, 4OD, Play.com, Napster, Blinkbox and iTunes. These declines could be attributed to the addition of extra site to the list in 2016 by virtue of the increase in number to choose from.
- Steam has shown a significant increase in awareness in 2017 from 14% to 17%.

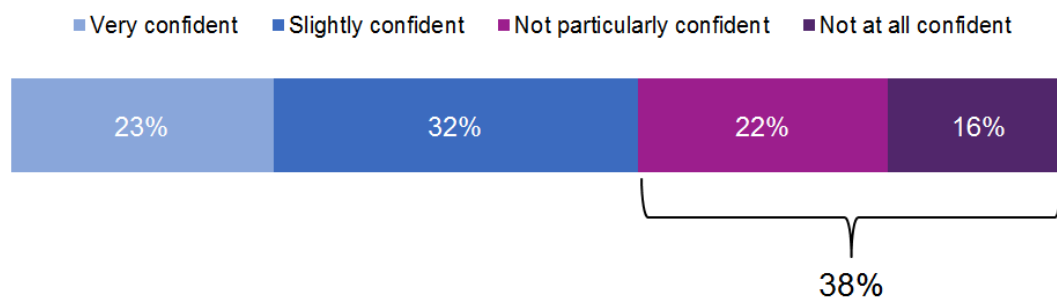
## 5.5 Confidence in knowing what is and isn't legal online

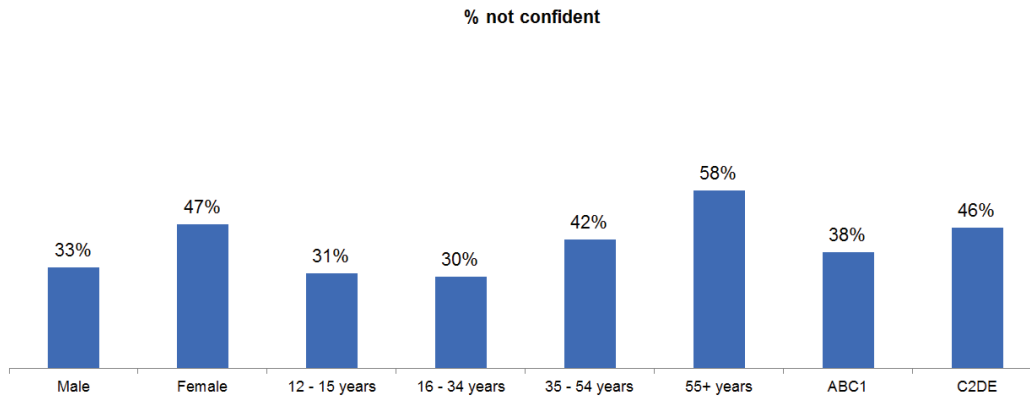
Respondents with internet access were asked the following question:

*How confident are you that you know what is legal and what isn't in terms of downloading, streaming/accessing, and sharing content through the internet?*

The results are shown in the chart below, with the proportion who said they were “*not particularly confident*” or “*not at all confident*” broken down by sex, age and socio-economic group (16+ only).

**Chart 5.5a: Confidence in knowing what is and is not legal online**





Base: internet users aged 12+ (4670)

- Since 2013, there has been no significant change in the level of confidence in knowing what is legal online and what isn't.
- Half of internet users (55%) claimed to be confident in knowing the legal content from the illegal material online.
- 38% of all internet users aged 12+ claimed to be either *"not particularly confident"* or *"not at all confident"* in terms of what is and isn't legal online.
- This lack of confidence appeared more prevalent amongst females (47% v 33% of male) and C2DEs (46% v 38% of ABC1), i.e. those less likely to participate in all forms of online activity (legal and illegal). Whilst lack of confidence generally increases with age beyond 34 years, 12-15 year olds (31%) showed similar levels of confidence to 16-24 year olds (30%).
- Since 2012 we have seen increasing levels of confidence amongst younger age groups 12-15 year olds rising from 58% to 69% and 66% to 73% for 16-24s.



## 6. Technical appendix

### 6.1 Data-collection methodology

The research universe for this study was all aged 12+ in the UK. Although some elements of the survey cover those without internet access, so as to provide a nationally representative frame, the core focus of the study (and thus the majority of questions) was the UK online population aged 12+.

A mixed online and face-to-face methodology was employed for this project, following the guidelines established in response to the *illegal file-sharing pilot study*<sup>19</sup> in 2010. The original design recommended by Kantar Media was subsequently approved via peer review, albeit with several amendments.

For the pilot research the core objective was to establish the most appropriate methodology for measuring behaviour and attitudes in this area. The main drivers that sat front of mind when assessing the most appropriate methodology (for what is clearly a sensitive yet technical subject matter) were representativeness, honesty of responses, and consumer understanding of the issues and terminology. These were all addressed as far as possible, and provided a solid grounding for the ongoing tracker methodology. The benefits of the 'chosen methodology' are as follows:

- It is the most suitable / relevant methodology to the subject matter.
- It appears to be the most likely to generate honesty, due to being entirely self-completion (i.e. removing the interviewer conditioning effects).
- It contains a higher incidence of high frequency internet users; key to qualification for any questions on illegal online behaviour, and hence providing a more robust sample / higher representation with which to profile and cut the data. This sample can be down-weighted in order to provide the true proportion among all adults.

However, despite these benefits, it is clear that an online sample cannot be considered representative *in isolation* as it:

- Reduces coverage of 65+ year olds significantly.
- Provides only a handful of low-frequency internet users, who are less likely to participate in the kind of behaviour covered, but are again necessary for a representative sample.

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19 <http://stakeholders.ofcom.org.uk/binaries/research/telecoms-research/filesharing/kantar.pdf>

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Therefore a single methodology approach to the project is not sufficient, and a mixed one is more likely to generate accurate and representative results. All the missing elements from the CAWI (Computer Aided Web Interviewing) online sample (i.e. over-65s and non/infrequent internet users) can feasibly be supplemented by a CAPI (Computer Aided Personal Interviewing) face-to-face methodology (with a self-completion element for sensitive areas) interviewing just those groups.

### The core online survey

For the core online survey we chose to make use of the Kantar online omnibus. However, rather than offer a standard omnibus approach we provided Ofcom with the flexibility to run a standalone project within the Omnibus framework – i.e. an omnibus survey set up just for this project with the precise sample definition we require, the timings we require and the sample numbers we require. This has two key advantages:

- Disguising the subject matter, since it would include a standard Omnibus invitation rather than a survey with specific subject matter, hence also avoiding a situation where respondents demand to know who the survey is for.
- Retains consistency with the file-sharing pilot approach in terms of both methodology and personnel (the same team available to co-ordinate).

### Face-to-face to ‘fill the gaps’

The face-to-face (CAPI) element was also conducted using the Kantar Omnibus (as it was for the pilot study) rather than ad-hoc. Our CAPI Omnibus offers the largest weekly face-to-face consumer survey in the United Kingdom. Each survey interviews approximately 2,060 adults aged 16+ and runs twice per week, offering c.4,120 adult interviews per week. The sample design is also structured in a way that allows a nationally representative sample to be gained from a ‘half wave’ of c.1,030. All these factors make it a high quality and cost-effective research solution for those who want to access a representative sample or specific groups.

We used the CAPI omnibus to screen for eligibility (internet use) and only those aged over 65 and/or those who are non-/low-frequency internet users were then asked subsequent questions.

Self-completion was offered for all sensitive questions. We know from experience that this method drives more honest responses, and it also maintains some consistency with online research, which is 100% self-completion. Although we had some concerns that older age groups might prefer to be asked the questions in person due to being less technically proficient on the whole, this only applies to those who claim to partake in online behaviour. We therefore felt it was safe to assume that if they are proficient enough to download via a computer, they should have little trouble in using the CAPI machine with an interviewer’s guidance.

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## Including 12-15 year olds

12-15 year olds have to be handled quite differently to adult respondents as they need to be recruited via their parents (who are asked for consent). Among children of this age group, we could confidently use online only (rather than including a face-to-face supplement) as internet penetration and frequency is so high.

## Consistency of timings

All three surveys were run concurrently in field in order to avoid bias in the data caused by any changes in the market, particularly given the rapid pace of change, and high-profile cases in the media. This was another advantage of adopting an Omnibus approach, as all three surveys were turned around in a period of two weeks.

## 6.2 Fieldwork dates

Six waves of research have been conducted to date. These have not all been run at the same times of the year and thus there will be seasonality effects.

The fieldwork dates are as follows:

Wave 1	July 2012
Wave 2	October 2012
Wave 3	January 2013
Wave 4	March – May 2013
Wave 5	May – June 2015
Wave 6	May – June 2016

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## 6.3 The sample

### Sample structure

The table below shows the breakdown (by data-collection methodology) of the total sample size per quarter, in comparison to that from the pilot survey (chosen methodology):

Methodology	Description	Sample Size
<b>Online (CAWI) adults</b>	16-64 year olds who use the internet at least once a day	2952
<b>Face-to-face (CAPI) adults</b>	16-64 year olds who use the internet less than once a day 16-64 year olds without internet access All 65+ year olds	1319
<b>Online (CAWI) 12-15s</b>	All 12-15 year olds with internet access	1039
<b>TOTAL</b>	<b>All 12+ year olds in UK</b>	<b>5310</b>

### Sample selection

The way in which the sample was selected varied across methodologies:

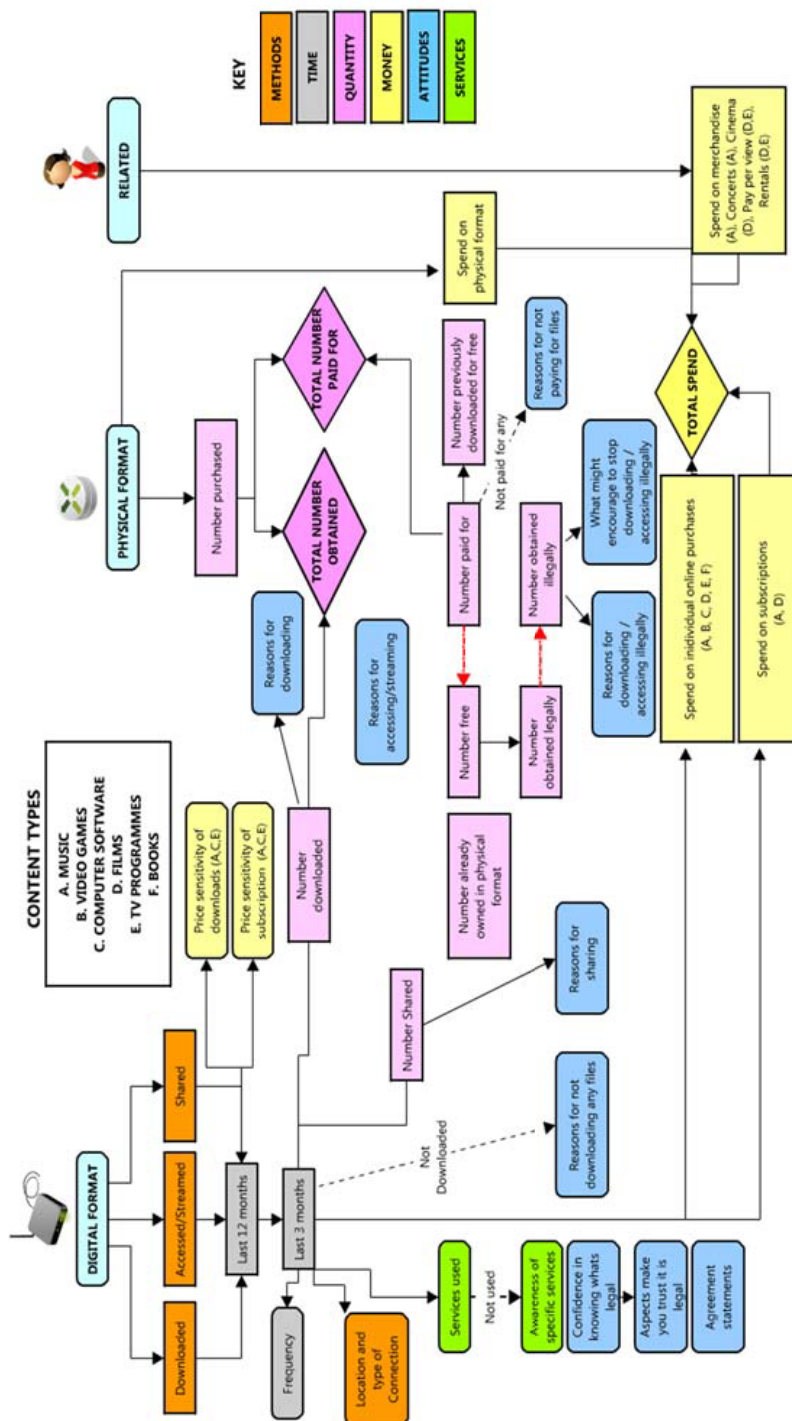
*Online interviews (adults 16+):* The sample was initially selected using demographic information already held, from Kantar's 'Lightspeed' consumer panel (this information is regularly updated, since it is a fully managed panel). The panellists were invited via email to take part in the survey, and demographic quota targets (sex, age, working status and region) were set to ensure that the end sample profile was representative of the UK internet population. Respondents were screened out if they claimed to use the internet less than once a day.

*Online interviews (12-15 year olds):* Invitations to complete the questionnaire were emailed out to a separate sample of online panellists who had previously agreed to participate in market research, and have children in the relevant age group. They were instructed to pass the completion of the survey on to their child having agreed they can participate. Quotas were set by age (250 of each age 12-15) and gender. The survey was left open for a week and then closed when the required sample profile was achieved.

*Face-to-face interviews (adults 16+):* Our face-to-face Omnibus uses a comprehensive address-based system using PAF and CD-Rom, cross-referenced to the Census data. For each wave, 143 sample points are selected and, within the selected primary sampling points, a postcode sector is chosen. Postcode selection within primary sampling points alternates between A and B halves to reduce clustering effects. All interviews were conducted via the field team and in accordance with strict quality control procedures. Quotas (by sex, age, working status and presence of children) were set during interviewing to ensure representivity, while any sample profile imbalances are corrected at the analysis stage through weighting. Further technical details can be provided on request.

## 6.4 The questionnaire

The full questionnaire is available as a separate document, but the following diagram demonstrates the overall flow and topics asked about:



## 6.5 Weighting

Data were weighted on three different measures (among all 12+ year olds, including those without internet access) in order to address imbalances in the sample. As there is no definitive single source for 12+ and frequency of internet use, three different sources were used and the 12-15 year old and 16+ sample were weighted separately; the weighting efficiency for these were 97.8% and 92.6% respectively.

SEX WITHIN AGE WITHIN SOCIAL GRADE (000's)Source: NRS 2010 (16+) & ONS Mid 2010 Population Estimates (12+)			ABC1	C2DE		
		12-15	16+	16+		
	<b>Male</b>	2.8%	24.2%	21.9%		
	<b>Female</b>	2.7%	27.0%	21.4%		
REGION Source: ONS Mid 2010 Population Estimates (12+)				%		
			Scotland	8.6%		
			Northern Ireland	2.9%		
			North England (Yorkshire and the Humber, North East, North West)	24.2%		
			Midlands (East Midlands, West Midlands, East of England, Wales)	30.6%		
			South England (London, South West, South East)	33.7%		
INTERNET USAGE Source: OCI W1 July 2012 (16+)	16-24	25-34	35-44	45-54	55-64	65+
<b>At least once a day (QD codes 1 or 2)</b>	11.8%	15.7%	12.3%	10.1%	8.2%	4.4%
<b>At least once a week but less than once a day (QD codes 2 or 4 or 5)</b>	1.3%	1.7%	2.4%	2.5%	1.8%	2.4%
<b>Access the Internet Less Often</b>	0.3%	0.3%	0.7%	1.6%	1.9%	2.5%
<b>Do not access the Internet</b>	0.5%	0.8%	1.3%	1.9%	3.3%	10.2%

Following weighting, the data were grossed to represent the UK 12+ population = 53.571 million (Source: ONS Mid 2010 Population Estimate).

## 6.6 Data distribution

Throughout the research, distributions have been assumed to be normal (also known as bell curve or Gaussian distribution) or binomial, depending on the type of question. Questions which have two stated (Yes/No) responses are binomial, while questions which have a volume response or are 'likert' are assumed to follow a normal distribution.

A 'likert' question is where people specify their level of agreement on a symmetric scale of agree-disagree or likely-unlikely. In market research, these scales tend to have points, and the distribution underlying the responses should, in theory, match the normal distribution. A volume response is one where the respondents answer with a value corresponding to their spend, or number of items auctioned within the past three months.

Although the volume distributions tend not to follow a strictly normal distribution, it is legitimate to use this distribution due to the central limit theorem. For a sufficiently large sample of independent random variables, the mean should be approximately normally distributed. The variables will be independent as one person's spend on music, say; will not influence another person's in most circumstances. This means that the mean can be calculated using the standard normal definition of dividing the sum of all volumes by the number of respondents. So if 1000 people spend £2,500 on e-books in three months, the average spend would be £2.50.

In practice, for the distributions of this type, large numbers of people tend to spend small amounts of money, and a few people spend large amounts. This means the distribution is biased and the degree of bias can be seen by comparing the median (spend by middle person if all respondents are placed in ascending order of spend) and the mean. With a negatively biased distribution (most people spending a little), the median will be lower than the mean.

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## 7. About Kantar Media

Kantar Media is a well-established brand of trusted media analysts and advisors. We help the world's advertisers, media owners, advertising/media/PR agencies, and publishers together with government, NGO, and trade organisations to measure their media reputation and impact.

Kantar Media has a strong track record in researching and understanding about the copyright infringement area, having conducted the Illegal file sharing pilot for Ofcom in 2010 and three subsequent waves of the OCI tracker.

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