



Intellectual
Property
Office

Online Copyright Infringement Tracker

Latest wave of research (March 2017)

Overview and key findings



Prepared for the Intellectual Property Office and carried out by:

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Kantar Media is a global leader in media intelligence, providing clients with the data they need to make informed decisions on all aspects of media measurement, monitoring and selection. Part of Kantar, the data investment management arm of WPP, Kantar Media provides the most comprehensive and accurate intelligence on media consumption, performance and value. 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 four subsequent waves of the OCI tracker, as well as the Stream-ripping Online Piracy project for PRS for Music with the IPO.

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Online Copyright Infringement Tracker: Latest wave of research (March 2017)

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Contents

1. Introduction	1
2. Key findings	2
2.1 General digital content consumption	2
2.2 Payment	2
2.3 Levels of infringement	3
2.4 Demographic profile of infringers.....	3
2.5 Volumes of consumption and infringement.....	3
2.6 Services used for consuming content online	4
2.7 Reasons for infringing	5
2.8 Reasons that would deter infringement	5
2.9 Consumer awareness of legal services and confidence about what is and is not legal online.....	5
3. Research overview	6
3.1 Background and objectives.....	6
3.2 Research notes.....	8
3.2.1 Content types and activities assessed	8
3.2.2 Key metrics	9
3.2.3 Subgroup analysis.....	11
3.2.4 Trends.....	11
3.2.5 The limitations of claimed behaviour and data reconciliation	12
3.2.6 Reporting averages and the issue of outliers.....	13
4. Cross category overview	14
4.1 Digital content consumption amongst internet users aged 12+ across all key content types.....	14
4.2 Payment groups.....	17
4.3 Existing ownership, and free access to digital content before purchasing	19
5. Levels of copyright infringement	21
5.1 Legality groups	21
6. Content consumption volumes	27

7. Consumer spend.....	32
7.1 Quarterly consumer spend amongst 12+ year olds.....	32
8. Attitudes towards digital activities and copyright infringement.....	35
8.1 Motivations for general online activities.....	35
8.2 Attitudes towards online content	39
8.3 Motivations for using paid services.....	41
8.4 Motivations for using illegal services.....	43
9. Awareness of lawful and licenced services.....	46
10. Confidence in knowing what is and is not legal.....	47
11. Technical appendix	50
11.1 Data collection methodology.....	50
11.2 Fieldwork dates.....	52
11.3 The sample.....	53
11.4 The questionnaire	54
11.5 Weighting.....	54
11.6 Data distribution.....	54
11.7 Magazine consumption.....	55
11.8 Digital images	55

1. Introduction

This report details the main findings of the latest wave of a large-scale consumer tracking study into the extent of online copyright infringement, as well as wider digital behaviours and attitudes, amongst people aged 12 years or older in the United Kingdom.

It is the seventh in a series of research waves intended to generate benchmark and time series relevant to the access and use of copyright materials online. It also outlines the background to the research and a detailed description of the methodology employed.

The study was commissioned and financially supported by the UK Intellectual Property Office (IPO).

Researching copyright infringement and digital behaviours is complex. The ways in which consumers access and share copyright material online change regularly, and infringement levels 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/filesharing/kantar.pdf>

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

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

For this seventh wave of research, respondents were surveyed during March 2017 and asked about their behaviour during “the last three months”. References to the figures from the previous wave (March 2016¹) are made where statistically significant changes have occurred. In some cases, references are also made to earlier waves.

1 Full details and results of the previous waves can be found at:
July 2012: <http://stakeholders.ofcom.org.uk/market-data-research/other/telecoms-research/copyright-infringement-tracker/>
October 2012: <http://stakeholders.ofcom.org.uk/market-data-research/other/telecoms-research/copyright-infringement-trackerw2/>
January 2013: <http://stakeholders.ofcom.org.uk/market-data-research/other/telecoms-research/copyright-infringement-trackerw3/>
March 2013: <http://stakeholders.ofcom.org.uk/market-data-research/other/telecoms-research/oci-wave4/>
March 2015: <https://www.gov.uk/government/publications/online-copyright-infringement-tracker-survey-5th-wave>
March 2016: <https://www.gov.uk/government/publications/online-copyright-infringement-tracker-survey-6th-wave>

2. Key findings

This report presents the main findings of the seventh wave (March 2017) of the consumer tracking study. The key findings below are as follows:

2.1. General digital content consumption

There was no significant shift in the proportion of internet users aged 12+ who had consumed content in the past three months, with 59% claiming to have done so (the same as in 2016). Consumption levels varied across content types; both music (37%) and TV programmes (37%) had the highest levels downloaded or streamed online in the past three months, followed by films (28%).

Despite no changes in the overall consumption level within the ‘past three months’, streaming/ accessing behaviours in particular saw increases. Streaming of films increased significantly (from 22% in 2016 to 26% in 2017), as did TV programmes (from 33% in 2016 to 35% in 2017) and computer software (from 6% in 2016 to 8% in 2017).

In terms of the number of content items consumed by consumers, this increased from 20 in 2016 to 24 in 2017. There was an uplift in both the number of files downloaded (from 7 files in 2016 to 9 files in 2017) as well as those streamed/accessed (from 15 in 2016 to 20 in 2017).

2.2. Payment

60% of those who consumed any of the six key content types during the past three months paid for at least some of it (a significant increase from 57% in 2016). This equates to over a third (36%) of all internet users aged 12+. Less than a quarter (23%) consume entirely free content online.

There has been a significant increase in the proportion of film consumers consuming entirely paid-for film content in the past three months (from 33% in 2016 to 37% in 2017). This equates to 10% of all internet users.

e-Books also recorded a significant increase in the proportion who paid for 100% of the e-Book content that they have consumed online in the past three months (from 40% in 2016 to 46% in 2017).

In terms of the proportions of those aged 12+ in the UK spending money on the different content types, this remains largely stable for all content types.

Regarding the average quarterly spend on the different content types for all aged 12+ in the UK, there was a slight increase in expenditure for music since 2016 (up from £22.06 to £23.57), as well as films (from £17.07 to £20.06), video games (from £9.08 to £11.90) and computer software (from £4.66 to £5.37).

Yet many content types recorded drops in the average spend on physical content since last year; this included for music (from £5.23 to £4.53), films (from £3.32 to £2.98) and e-books (from £8.07 to £7.65).

Music continues to have the highest overall quarterly spend across the content types at an estimated £1,266 million (an increase from £1,183 million in 2016). Films, video games and computer software also record increases in their overall quarterly spends, whilst year-on-year declines are recorded for TV programmes (from £320 million to £289 million) and e-books (from £560 million to £533 million).

2.3. Levels of infringement

It is estimated that 15% of UK internet users aged 12+ (equating to approximately 6,486,000 people) consumed at least one item of online content illegally in the ‘past three months’, thus in line with findings from 2016. This equates to a quarter (25%) of all consumers of any of the six key content types doing so. 4% of all internet users consume entirely illegal content (i.e. 7% of all consumers of the six categories).

Levels of infringement varied by content type, with TV programmes now recording the highest levels of infringement (8%) amongst internet users followed by music (7%) and films (6%).

Yet when looking at the infringement levels amongst consumers of each content type, we see that computer software records the highest levels (26%). This is followed by TV programmes (22%) and films (21%).

2.4. Demographic profile of infringers

Looking at infringers of any of the six key content types, those who downloaded or streamed/ accessed content illegally were skewed towards those aged under 35 (68%) and ABC1 (62%). It was slightly skewed towards men, too (54%).

Non-infringers were more likely to be ABC1 (68%) although this is significantly lower than in 2016 (71%). As in 2016, there was no real gender skew nor towards those aged under 35.

Looking at the penetration levels of infringement amongst these demographic groups of the online population, there was a slight increase in infringement amongst 12-15 year olds (from 23% in 2016 to 25% in 2017).

2.5. Volumes of consumption and infringement

It is estimated that 871 million items (both physical and digital) had been consumed in the last three months from when fieldwork took place within the six key content categories. Overall, the digital format continues to grow, contributing to 75% (649 million) of consumption. This is an increase of 36 million since 2016.

Music remains by far the most consumed content type, contributing to over half (56%) of all content consumed at 484 million tracks. It is estimated that 79% of all music consumed is done so digitally, around 382 million tracks. Around a third (34%) of online music content is paid for, equating to 130 million tracks. In terms of the proportion of online music content accessed illegally, this is around 17%, i.e. 67 million music tracks.

Most other content types also recorded increases between 2016 and 2017 in the volumes consumed, with films rising from 86 million to 97 million, computer software rising from 18 million to 25 million, and video games from 32 million to 42 million.

TV programmes saw a drop in overall consumption volumes from 153 million in 2016 to 145 million in 2017. This is the result of a small drop in digital format consumption from 136 million to 128 million, whilst physical content volumes remained stable at 17 million in both 2016 and 2017. Over a third (36%) of TV programmes consumed online are paid for, i.e. around 46 million TV programmes. Approximately 11% of TV programmes consumed online are done so illegally, equating to 14 million programmes – this is nearly half the amount estimated to have been infringed in 2016 (27 million).

e-Books also recorded a drop in overall consumption volumes from 83 million to 77 million and this too was driven by a drop in digital content consumption (from 28 million to 23 million), whilst the volume of physical content consumption remained stable since 2016 (at 55 million in both years). e-Books are the only type of content where physical content volumes outweigh digital. 85% of e-Books consumed online are paid for, equating to around 66 million e-Books. 17% of e-Books consumed online are done so illegally, which is around 4 million e-Books.

2.6. Services used for consuming content online

YouTube remains the number one service used by consumers, with half (51%) claiming to have used it in the past three months. Many streaming services also record significant increases in claimed usage amongst consumers of the six key content types, including Netflix, Spotify, ITV Hub and Amazon Music. Amongst infringers, the latter three services also record significant increases.

A third of infringers (33%) now use Facebook to consume or stream content, up from 23% in 2016 (though this is not necessarily to infringe content).

Almost 1 in 5 (19%) of infringers claimed to have used the stream-ripping site www.youtube-mp3.org in the past three months (increasing from 11% in 2016).

Use of Peer2Peer services by infringers has also increased significantly since last year, with nearly a quarter (24%) now claiming to have used at least one of the surveyed types in the past three months (up from 19% in 2016).

2.7. Reasons for infringing

Reasons for infringing remained largely similar to those given in 2016. That said, ‘convenience’ was the most commonly cited reason (45%), overtaking ‘it is free’ as a result of a drop in the proportion claiming this as a motive to do so (from 49% in 2016 to 44% in 2017). ‘It is quick’ also saw a drop in the proportion of infringers claiming so (from 42% in 2016 to 37% in 2017).

2.8. Reasons that would deter infringement

Many of the top aspects cited that would discourage infringement were related to the unavailability of content. ‘If everything I wanted was available legally’ was one of the most common reasons provided, with 22% of infringers claiming so, whilst 17% claimed “if everything I wanted was available legally online as soon as it was released elsewhere” then this would deter them. 16% claimed that “if a subscription service I was interested in became available” they would be inclined to stop infringing content (up significantly from 9% in 2016).

21% claimed that ‘if legal services were cheaper’ this would discourage infringement, down from 24% in 2016. This results in it no longer being the top aspect cited by infringers, dropping to third.

‘If it was clearer what is legal and what isn’t’ was also cited as something that may discourage infringement by 22% of infringers, joint first with ‘if everything I wanted was available legally’.

2.9. Consumer awareness of legal services and confidence about what is and is not legal online

YouTube remains the top services that internet users are aware of, though recording a lower awareness score than last year (dropping from 78% in 2016 to 71% in 2017).

BBC iPlayer and Netflix retain second and third position respectively in terms of awareness levels, though the latter records a significant drop too (from 68% in 2016 to 64% in 2017).

Awareness of Apple Music has increased significantly since 2016, from 37% to 40%, whilst its competitor Amazon Music has also done so, from 34% in 2016 to 38% in 2017. That said, Spotify remains ahead of both of these at 51% (the same as in 2016).

Over half (56%) of internet users claimed to be confident in their ability to identify legal content from illegal content online. This remains largely in line with 2016 (55%).

3. Research overview

3.1. Background and objectives

The Digital Economy Act (DEA) 2010² 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 infringement³. The Government adopted this recommendation and, as a result, the Intellectual Property Office agreed to fund Ofcom to conduct research into online copyright infringement, 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 opposite sets out the overall aims of the research, along with the specific research objectives and associated metrics to tackle these.

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

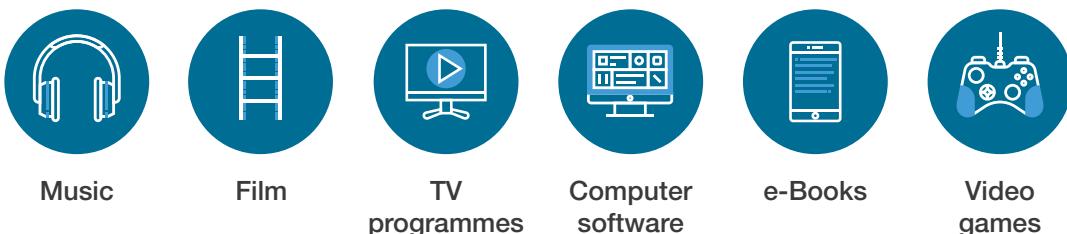
3 <http://www.ipo.gov.uk/preview.htm> <http://www.ipo.gov.uk/ipresponse-full.pdf>

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

3.2. Research notes

3.2.1. Content types and activities assessed

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



Additional questions on digital magazine content and digital images were also included to monitor consumption and findings for these types of content are noted in the appendix section of this report. These are not included in the analysis of consumption and legality in the main body of the report, though.

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. These are as follows:

Music	Music tracks or albums (excluding online radio stations) ⁴
Films	Films (full length)
TV programmes	TV programmes
Computer software	Computer software (excluding mobile phone apps, and patches upgrades to software already owned)
Books	e-Books
Video games	Video games (excluding patches and upgrades)

There were a few updates to the questionnaire in 2017:

Codes added for the downloading and sharing questions for digital images to help understand the numbers of people that download / copy or share this type of content, as well as a new question on which services are used to do so. The findings for this content type are detailed in the appendix section of this report.

The brand lists provided for respondents to detail which websites or services they used to download, stream or share each content type were updated.

3.2.2. 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.

4 ‘Music videos’ and ‘music videos’ were asked separately for the ‘ever done’ and ‘last three months’ questions to aid with distinctions.

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

Topic	Respondent level	Volume level
Assessing levels of copyright infringement		
General behaviour	<ol style="list-style-type: none"> 1. Ever done 2. Done in the past three months⁵ 3. Frequency 4. Median volumes (past three months) among those who have done activity 	
Payment	<p>Proportion of the population who fit into the following derived groups in terms of volume of content consumed in the past three months:</p> <ol style="list-style-type: none"> 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 <p>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 volumes⁶.</p>	Paid and free proportions of total volume (incorporating physical format where relevant)
Legality	<p>Proportion of the population who fit into the following derived groups in terms of volume of content consumed in the past three months:</p> <ol style="list-style-type: none"> 1. 100% legal 2. Mix of legal and illegal 3. 100% illegal 4. Any illegal (combination of 2 + 3) <p>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.</p>	Legal and illegal proportions of total volume (incorporating physical format where relevant)

⁵ 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 quarterly DEA reporting requirement, and 2) it is intended to avoid bias in the data caused by seasonality (especially regarding the Christmas period).

⁶ Please see the Limitations of claimed behaviour and data reconciliation section on page 15.

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) <ul style="list-style-type: none"> - For consuming individual files via a download service - For a subscription service (monthly charge) 	

3.2.3. Subgroup analysis

For each area of analysis, the report details the main findings, followed by significant differences of interest (at the 95% level⁷, unless indicated otherwise) compared to 2016 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

3.2.4. 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).

⁷ 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.

3.2.5. 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 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 11) of this report.

3.2.6. 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. Thus, 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 most 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.

4. Cross category overview

4.1. Digital content consumption amongst internet users aged 12+ across all key 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 six key content types (for example, if someone downloaded and streamed both music and films they would be counted only once within the overall proportion):

Table 4.1a: Digital behaviour among internet users aged 12+ – all content types

		Music	Films	TV programmes	Comp. software	e-Books	Video games	ANY
Base: all internet users 12+		4573	4573	4573	4573	4573	4573	4573
Download	Ever done	31% ↓	16%	16%	14%	16%	14%	48%
	Past 3 months	21%	11%	11%	9%	10%	9%	38%
Stream or access	Ever done	41%	34% ↑	44% ↑	14% ↑	12%	14% ↑	62% ↑
	Past 3 months	32%	26% ↑	35% ↑	8% ↑	7%	9%	54%
Share	Ever done	9%	4% ↑	3%	3%	2%	4% ↑	13%
	Past 3 months	6%	2%	2% ↑	1% ↓	1%	3% ↑	9%
Download or Stream / access i.e. consumed	Ever done	47%	37% ↑	46%	20%	20%	20%	67%
	Past 3 months	37%	28% ↑	37% ↑	13% ↑	13%	14% ↑	59%
Download, Stream / access, or share	Ever done	48%	37% ↑	46%	21%	20%	21% ↑	67%
	Past 3 months	38%	28% ↑	37% ↑	13%	13%	15% ↑	59%

- There were no significant shifts in the proportion of internet users claiming to have ‘ever’ downloaded content at the overall level (‘any’), with 48% of consumers claiming to have done so (compared with 49% in 2016). There was a significant drop in the proportion claiming to have ever downloaded music (decreasing from 33% in 2016 to 31% in 2017), though remaining by far the most downloaded content type. None of the other individual content types recorded any significant movements since 2016.
- In terms of downloading within the ‘past three months’, there were no significant movements either at an overall level, nor at an individual content type level.
- There was a significant increase in the proportion of the online population who claimed to have ‘ever’ streamed or accessed any of the six content types (up from 60% in 2016 to 62% in 2017). This was driven by significant increases in the streaming or accessing levels for the following content types:
 - TV programmes (increasing from 41% in 2016 to 44% in 2017)
 - Films rose from (increasing from 29% in 2016 to 34% in 2017)
 - Video games (increasing from 12% in 2016 to 14% in 2017)
 - Computer software (increasing from 11% in 2016 to 14% in 2017)
- Regarding streaming or accessing content within the last three months, 54% of internet users claimed to have done so (compared to 52% in March 2016). Whilst the increase is not significant, this is the highest level of claimed streaming or accessing behaviour to date on the tracker. This was primarily driven by significant increases in streaming or accessing the following content types:
 - TV programmes (increasing from 33% in 2016 to 35% in 2017)
 - Films (increasing from 22% in 2016 to 26% in 2017)
 - Computer software (increasing from 6% in 2016 to 8% in 2017)
- The proportion of internet users claiming to have ever shared any of the six content types remains largely stable since the previous year (12% in 2016 and 13% in 2017). Significant increases were recorded for films and video games (though remaining at low levels) – both increased from 3% in 2016 to 4% in 2017.
- When looking at sharing content within the past three months, again there was no significant increase at an overall level. There were significant increases for TV programmes and video games, and a decrease for computer software (albeit only by 1% respectively).

- In terms of online consumption levels (i.e. those who have downloaded or streamed the respective content types) we see that the proportion of the online population who claim to have ever consumed any of the six content types remains stable at 67% in both 2016 and 2017. Similarly, the proportion claiming to have done so in the past three months also remains stable year on year (at 59% in both 2016 and 2017). When looking at consumption of the individual content types in the past three months, we see that TV programmes, films, video games and computer software all increased significantly since 2016:
 - TV programmes (increasing from 35% in 2016 to 37% in 2017)
 - Films (increasing from 25% in 2016 to 28% in 2017)
 - Video games (increasing from 12% in 2016 to 14% in 2017)
 - Computer software (increasing from 11% in 2016 to 13% in 2017)

The following table outlines the median number of files downloaded, streamed / accessed or shared in the past three months (amongst those who had done each activity). Again, the 'any' column is an aggregation across all six key content types:

Table 4.1b: Median number of files among 12+ internet users who consumed content (past three months)

	Music	Films	TV progr- ammes	Comp. soft- ware	e-Books	Video games	ANY
Base⁸ *Caution: base sizes lower than 100	1143	551	528	441	488	529	2010
Downloaded	10	3	5	2	3	3	9
Base	1686	1286	1688	367	374	548	2740
Streamed / accessed	20	5	7	3	3	3	20
Base	331	109	88*	84*	55*	129	500
Shared	3	2	1	2	1	2	3
Base	1925	1416	1792	615	627	782	3001
Consumed (i.e. downloaded or streamed / accessed)	23	5	10	3	4	3	24

8 All base sizes in this table are amongst those who had done each activity in the past three months

There has been an increase in the median number of content items consumed (i.e. downloaded or streamed / accessed) in the past three months – up from 20 files in 2016 to 24 files in 2017. This is driven by both an uplift in the median number of items downloaded (from 7 files in 2016 to 9 files in 2017) as well as median number of items streamed / accessed (up from 15 files in 2016 to 20 files in 2017).

There was an increase in the median number of music files consumed since last year, up from 20 files in 2016 to 23 files in 2017. A slight increase was recorded for music files downloaded (up from 8 files in 2016 to 10 files in 2017) whilst the median number streamed remained stable at 20 files in both years.

The median number of content items shared in the past three months remains stable since 2016 at 3 files in both years. That said, the median number of TV programmes shared has decreased, from 3 files in 2016 to 1 file in 2017. e-Books also sees a drop in the claimed median number of files shared, from 2 files in 2016 to 1 file in 2017, as does video games from 3 files in 2016 to 2 files in 2017.

4.2. Payment groups

Respondents were also categorised into three different groups based on the proportion of digital content that they claimed to have paid for: ‘100% paid’, ‘mix of paid and free’ and ‘100% free’. 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:

1. Base 1: all who downloaded or streamed / accessed each content type in the past three months
2. 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 4.2a: Payment groups – proportion who paid to consume content or did so for free (past three months)

↑ Sig. increase (from 2016) ↓ Sig. decrease (from 2016)	Music	Films	TV progra-mmes	Comp. software	e-Books	Video games	ANY
Base 1 – all who consumed each content type	1925	1416	1792	615	627	782	3001
100% Paid	28%	37% ↑	17%	26%	46% ↑	42%	14%
Mix of Paid and Free	22%	19%	11%	17%	19%	27%	46%
100% Free	51%	44%	72%	58%	36%	31%	40% ↓
ANY PAID	49%	56%	28%	42%	64%	69%	60% ↑
ANY FREE	72%	63% ↓	83%	74%	54% ↓	58%	86%
Base 2 – 12+ internet users	4573	4573	4573	4573	4573	4573	4573
100% Paid	10%	10% ↑	6%	3%	6% ↑	6% ↑	9%
Mix of Paid and Free	8%	5%	4% ↓	2%	2% ↓	4% ↑	27%
100% Free	19%	12%	26%	8% ↑	5%	4%	23% ↓
ANY PAID	18%	16% ↑	10%	6% ↑	8%	9%	36% ↑
ANY FREE	27%	18%	30%	10%	7%	8%	50%

There has been a significant increase in the proportion of those who consume any of the six key content types who have paid for at least some of what they consumed (increasing from 57% in 2016 to 60% in 2017). This of course results in a significant drop in the proportion who consume 100% free content (down from 43% in 2016 to 40% in 2017).

This has resulted in the proportion of all internet users aged 12+ who have paid to consume any of the six key content types to significantly increase, too (up from 34% in 2016 to 36% in 2017). At the same time, the proportion who have consumed all their content for free fell significantly, from 26% in 2016 to 23% in 2017.

Amongst those who have consumed films online in the past three months, there has been a significant increase in those who have paid for 100% of the film content that they have

consumed (up from 33% in 2016 to 37% in 2017). There was also a slight (not significant) uplift in the proportion of film consumers who have paid for any film content (from 54% in 2016 to 56% in 2017).

A similar story for e-Books, with the proportion of e-Books consumers who have paid to consume 100% of their e-Books increasing significantly (from 40% in 2016 to 46% in 2017). Again, this coincides with a slight (not significant) uplift in the proportion who paid for any e-Books (up from 62% in 2016 to 64% in 2017).

4.3. 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 4.3a: Prior physical ownership of content consumed in the past three months

↑ Sig. increase (from 2016) ↓ Sig. decrease (from 2016)	Music	Films	TV programmes	Comp. software	e-Books	Video games	ANY
Base – all those who have consumed each content type in the past three months	1901	1405	1788	608	619	767	2963
100% owned in physical format	5%	3%	2%	6% ↓	5%	8%	2%
Some owned in physical format	24% ↓	15% ↓	10%	14%	14%	25%	31%
None owned in physical format	71% ↑	82% ↑	88%	79% ↑	82%	67%	67%
Mean number**	13	1	6	1	1	2	13

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

- Two thirds (67%) of consumers did not own content in any physical format before consuming it online. This is similar to last year (66%). Again there is no real shift in the proportion who owned some in physical format at 31% compared to last year (32%).
- That said, there has been an increase in the average number of items physically owned prior to purchasing content online in the past three months, from 11 in 2016 to 13 in 2017.

- Physical ownership of music content prior to online consumption has changed significantly since 2016; 71% of online music consumers claimed to not own the content in physical format compared to 65% in 2016. This is the result of a significant drop in the proportion who claimed to own some content in physical format since last year (down from 30% in 2016 to 24% in 2017).
- A similar story for film content, which recorded a significant increase in the proportion of consumers who claimed not to own any in physical format prior to consumption – up from 79% in 2016 to 82% in 2017. Again this was the result of a significant drop in the proportion who claimed to own some physically before consuming it online, from 18% in 2016 to 15% in 2017.
- Computer software was the only content type to see a significant drop in the proportion of consumers who owned 100% of the content they consumed online already in physical format (down from 10% in 2016 to 6% in 2017). At the same time, the proportion who claimed to not own any in physical format increased significantly, from 74% in 2016 to 79% in 2017.
- TV programmes reported an increase in the average number of items physically owned prior to purchasing online, from 3 in 2016 to 6 in 2017.

The following table displays the proportions of people who consumed (i.e. downloaded or streamed) for free the content they purchased in the past three months:

Table 4.3b: Consuming content online for free before purchasing in the past three months

↑ Sig. increase (from 2016) ↓ Sig. decrease (from 2016)	Music	Films	TV progr- ammes	Comp. software	e-Books	Video games	ANY
Base*	912	730	483	282	400	495	5267
100% previously consumed for free	18%	10%	10%	18%	8%	12%	3%
Any previously consumed for free	50%	30%	31%	46%	24%	39%	21% ↑
None previously consumed for free	50%	70%	69%	54%	76%	61%	79% ↓
Mean number**	25	2	5	3	1	3	6

* All bases are among those who had paid for types of content (physical or digital) in the past three months, except 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 proportion of those aged 12+ who had previously consumed content online for free before purchasing it has increased significantly, from 17% in 2016 to 21% in 2017.
- There have been no significant increases in the proportion of consumers of each content type doing consuming content for free online before purchasing it. That said, slight increases are recorded for all content types except TV programmes (which fell from 33% in 2016 to 31% in 2017).

5. Levels of copyright infringement

The next section of this report details levels of copyright infringement, both at an overall level (i.e. across all six key content types) as well as the individual content types.

5.1. Legality groups

As with the payment group metrics outlined in Section 4.1.2, we can create ‘legality’ groups by assessing the proportion of online content they each consumed legally⁹.

Table 5.1a: Legality groups – proportion who consumed content legally / illegally (past three months)

↑ Sig. increase (from 2016) ↓ Sig. decrease (from 2016)	Music	Films	TV progra-mmes	Comp-software	e-Books	Video games	ANY
Base 1 - all who consumed each content type in the past 3 months	1925	1416	1792	615	627	782	3001
100% legal	82%	79%	78%	74% ↓	89%	84%	75%
Mix of legal and illegal	7%	8%	9%	10% ↑	6%	10% ↑	18% ↑
100% illegal	12%	13%	13%	16%	5%	6% ↓	7% ↓
ANY ILLEGAL	18%	21%	22%	26% ↑	11%	16%	25%
Base 2 - 12+ internet users	4573	4573	4573	4573	4573	4573	4573
100% legal	30%	22% ↑	29%	10%	11%	11%	44%
Mix of legal and illegal	2% ↓	2%	3%	1%	1%	1%	10%
100% illegal	4% ↓	4%	5% ↑	2%	1%	1%	4% ↓
ANY ILLEGAL	7%	6%	8%	3% ↑	1% ↓	2%	15%

⁹ 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.

- Whilst the proportion of those who have consumed entirely legally any of the key six content types remains stable year-on-year at 75% in both 2016 and 2017, there have been some shifts in the proportions who consume either a mixture of legal and illegal content and entirely legal content. Those who claim to have consumed a mixture have increased significantly, up from 16% in 2016 to 18% in 2017. This has resulted in a significant drop amongst those who have consumed entirely illegal content, which has decreased from 9% in 2016 to 7% in 2017.
- Looking at the proportions of infringers amongst internet users 12+ overall, though, we see that these remain largely stable; 44% consumed entirely legal content in both 2016 and 2017. The proportion who consumed any of the six key content types illegally also remains the same at 15% in both years. There was a significant decrease in those who have consumed entirely illegal content, though only dropping by 1% (from 5% in 2016 to 4% in 2017).
- Last year, the highest level of infringement by consumers was amongst film consumers, though these have dropped slightly in 2017 (from 24% in 2016 to 21% in 2017). However, this is no longer the content-type that is most infringed by its consumers; rather, computer software is proportionately the most infringed content-type by its consumers (significantly increasing from 19% in 2016 to 26% in 2017). Particularly, this is driven by increases in those claiming to download / access a mixture of legal and illegal computer software (increasing from 5% in 2016 to 10% in 2017). Nonetheless, when looking at the proportion of internet users aged 12+ overall, it is one of the lesser infringed content types with only 3% doing so.
- Video games have recorded a significant decrease in terms of its consumers downloading / accessing such content entirely illegally (dropping from 10% in 2016 to 6% in 2017). However, this coincides with an increase in the proportion claiming to consume both legal and illegal content (up from 7% in 2016 to 10% in 2017), thus the overall infringement level does not change significantly.
- There was also a slight increase in the proportion of TV programme consumers infringing the content they download / access (from 20% in 2016 to 22% in 2017). This has resulted in this content type now being proportionately the most infringed content type amongst internet users 12+ with 8% doing so.

The next table shows the demographic profile of 'any illegal' (i.e. all infringers) versus 100% legal (i.e. all who do not infringe):

Table 5.1b: Demographic profiles of infringers versus non-infringers

↑ Sig. increase (from 2016) ↓ Sig. decrease (from 2016)		All content consumers	Any illegal (Infringers)	100% legal (non-infringers)
	Base	3001	747	2254
Gender	Male	51%	54%	49%
	Female	49%	46%	51%
Age	12-15	9%	12%	9%
	16-34	46%	56%	42%
	35-54	31%	25%	33%
	55+	13%	8%	15%
Socio-economic group ¹⁰	ABC1	66%	62%	68% ↓
	C2DE	34%	38%	32% ↑

In 2017, the profile of infringers was slightly more skewed towards males than it was in 2016 (increasing from 52% in 2016 to 54% in 2017). It was also more skewed towards those aged under 35 years old than in the previous year (rising from 63% to 2016 to 68% in 2017). Similarly, the skew towards ABC1s became more pronounced (increasing from 58% in 2016 to 62% in 2017).

As was the case in 2016, amongst non-infringers there was no real gender skew, nor was there one towards those aged under 35 years old. The skew towards ABC1s was less strong this year than last year, though (significantly decreasing from 71% in 2016 to 68% in 2017).

We also looked at the penetration levels amongst these demographic groups of the online population, and found that there was a slight increase in infringement amongst those aged 12-15 (increasing from 23% in 2016 to 25% in 2017). All other demographic groups remained largely stable, with less than a 1% shift in the percentage who had infringed content.

¹⁰ 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 5.1c: Legality groups – median content items consumed illegally in the past three months

↑ Sig. increase (from 2016) ↓ Sig. decrease (from 2016)	Music	Films	TV progra-mmes	Comp. software	e-Books	Video games	ANY
Base - all who consumed each content type illegally in the past three months	409	358	361	116	81	116	747
100% illegal	6	4	3	2*	2*	2*	5
Any illegal	8	4	4	2	2*	2	8

*Caution low base (under 100)

- The median number of illegal files consumed by infringers has dropped slightly, from 9 in 2016 to 8 in 2017. Contrastingly, there has been an increase in the number of illegal files consumed by those who consume entirely illegal content, up from 4 in 2016 to 5 in 2017.
- Films, computer software and video games saw no change in the median number of files consumed illegally by infringers, whilst music, TV programmes and e-Books all recorded a drop:
 - Music (falling from 10 in 2016 to 8 in 2017)
 - TV programmes (falling from 5 in 2016 to 4 in 2017)
 - e-Books (falling from 3 in 2016 to 2 in 2017)

Amongst those who have consumed 100% of each content type illegally, films was the only one to see an increase in the median number consumed (from 3 in 2016 to 4 in 2017).

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'), as well as benchmarking these against all consumers:

Table 5.1d: Use of services for consuming (downloading or streaming / accessing) or sharing content in the last three months

↑ Sig. increase (from 2016) ↓ Sig. decrease (from 2016)	All who consumed or shared content in past 3 months	Any illegal (infringers)	100% legal (non-infringers)
Base - all who have downloaded, streamed / accessed or shared any of the six content types in the past three months	3014	747	2254
YouTube	51%	62%	48%
NET: Any Amazon service	41%	38%	42%
Amazon / Amazon MP3 / Kindle / Amazon Prime ¹¹	37%	34%	38%
BBC iPlayer	35%	31%	37%
Netflix	31% ↑	29%	32% ↑
NET: Any Apple service	26%	28% ↑	25%
Spotify	26% ↑	27% ↑	25% ↑
ITV Hub / ITV Player	21% ↑	22% ↑	21% ↑
Facebook	21% ↑	33% ↑	18%
iTunes / App Store	19%	23% ↑	18%
Google (search engine)	17%	25% ↑	15%
All 4 / 4OD	17%	19% ↑	17%
Email	12%	19% ↑	9%
www.youtube-mp3.org	11% ↑	19% ↑	8% ↑
Sky Go	11%	12% ↑	11%
Apple Music	10%	9% ↑	10%
Direct2Drive**	10%	9%	10%
Amazon Music	9% ↑	9% ↑	9%
Google Play / Android Marketplace	9%	11% ↑	9%
Curzon Home Cinema**	9%	9%	9%
Demand 5	8%	11% ↑	7% ↓
Steam	8% ↑	9% ↑	8% ↑
Microsoft	7%	11% ↑	6%
NowTV	7%	8%	7%
uTorrent	7%	17% ↑	4%
Kodi**	7%	13%	5%
Putlocker**	7%	15%	4%
Xbox Live	6%	10% ↑	5%
Peer-to-peer (NET) ¹²	11% ↑	24% ↑	7% ↑
Cyberlockers (NET) ¹³	5%	10% ↑	4%
Mean number of services used	5.3	6.9	4.8

11 Amazon Prime was merged with Amazon / Amazon MP3 / Kindle in 2017, thus this has not been significance tested, nor has the NET: Any Amazon service. **Added in 2017.

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

13 Cyberlockers comprises Rapidshare, MediaFire and YouSendit.

- YouTube remains the top service used by consumers, with half (51%) having used it in the past three months. Just under two-thirds (62%) of infringers have used the service (this is not necessarily to infringe content).
- Many streaming services see significant increases in their usage levels. Netflix records a significant increase both amongst all those who have consumed or shared content in the past three month (up from 26% in 2016 to 31% in 2017), as well as those who consume entirely legal content (up from 27% in 2016 to 32% in 2017). Despite not being up significantly, the proportion of infringers who use Netflix has also risen (from 24% in 2016 to 29% in 2017).
- Spotify also sees the proportion of consumers who use the service increase since last year, from 19% in 2016 to 26% in 2017. Significant year-on-year increases are also reported for the service amongst both those who infringe (from 16% to 27%) and those who do not (from 19% to 25%).
- Usage of ITV Hub amongst consumers also increased significantly, now up from 16% in 2016 to 21% in 2017. Usage levels also increased year-on-year amongst both the infringer group (from 15% to 22%) and the non-infringer group (from 16% to 21%).
- Though BBC iPlayer does not record a significant shift amongst any of the reported groups, it remains ahead at 35% (stable since 2016) and therefore the third most commonly used service by consumers.
- Facebook also reports a significant uplift since 2016, from 18% to 21%. The service continues to be more prevalently used by infringers to access or share content, with a third (33%) now doing so (significantly higher than 23% in 2016) – again this is not necessarily to infringe content.
- There was an increase in the proportion of consumers using the stream-ripping service www.youtube-mp3.org (from 7% to 11%). Almost 1 in 5 (19%) of infringers claimed to have used this service in the past three months (significantly higher than 11% in 2016).
- Use of Peer2Peer services also increase significantly since last year, from 8% in 2016 to 11% in 2017. 24% of infringers have used such services in the past three months (compared to 19% last year). There has also been a significant increase in the use of cyberlockers by infringers, up from 4% in 2016 to 10% in 2017, though amongst all who have consumed the proportion has only risen by 1% (from 4% in 2016 to 5% in 2017).
- Those who infringed used on average 6.9 services (up from 4.6 in 2016), compared to 4.8 for those who consumed entirely legal content (also increasing since 2016 when they recorded an average of 4.1).

6. 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 case¹⁴).

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

Table 6.1a: Volume of content consumed

Volumes are in millions		Total	Physical format	Digital format
Music	Volume	484m	102m	382m
	% of total	56%	21%	79%
TV programmes	Volume	145m	17m	128m
	% of total	17%	12%	88%
Films	Volume	97m	25m	72m
	% of total	11%	26%	74%
e-Books	Volume	77m	55m	23m
	% of total	9%	70%	30%
Video games	Volume	42m	18m	25m
	% of total	5%	41%	59%
Computer software	Volume	25m	5m	19m
	% of total	3%	22%	78%
Total	Volume	871m	222m	649m
	% of total		25%	75%

- We estimate that digital format consumption contributes three quarters of the overall volume (649 million). Whilst this is proportionately the same as in 2016, the actual volume has increased by 36 million (up from 613 million in 2016 to 649 million in 2017).
- At the same time, the volume of physical content consumed has also been estimated to have increased (from 203 million in 2016 to 222 million in 2017).

¹⁴ Due to rounding (to the nearest million), not all figures e.g. paid + free will add up to the total exactly.

- This means that the overall volume of content consumed is up by 55 million on the year (from 816 million in 2016 to 871 million in 2017).
- The majority of content is consumed in digital format across all categories, except for e-Books where physical content still outweighs digital.
- Music remains by far the most consumed content type, both digital (382 million tracks) and physically (102 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 27 million in digital volumes for Music since last year (up from 355 million tracks to 382 million tracks).
- Most other content types also recorded increases between 2016 and 2017 in the volumes consumed, with films rising from 86 million to 97 million, computer software rising from 18 million to 25 million, and video games from 32 million to 42 million.
- However, TV programmes recorded a drop in overall content consumption volume from 153 million in 2016 to 145 million in 2017. This is the result of a drop in digital format (from 136 million in 2016 to 128 million in 2017) whilst physical content remains stable (at 17 million for both years).
- e-Books also recorded a drop in overall consumption volumes from 83 million to 77 million. Again this was the result of a drop in digital content consumption (from 28 million to 23 million) whilst physical content remained stable (at 55 million in both years).

We also looked at the volumes of digital content that were paid for versus freely consumed, as shown in the following table:

Table 6.1b: Paid for vs. free content in digital formats

Volumes are in millions	Digital format	
	Paid content	Free content
Music	Volume	130m
	% of total	34%
TV programmes	Volume	46m
	% of total	36%
Films	Volume	28m
	% of total	39%
e-Books	Volume	11m
	% of total	48%
Video games	Volume	12m
	% of total	50%
Computer software	Volume	5m
	% of total	26%

- Most of the key content types recorded estimated increases since 2016 in the volumes of digital content consumed that was paid for:
 - Music (increasing from 87 million to 130 million)
 - TV programmes (increasing from 23 million to 46 million)
 - Films (increasing from 24 million to 28 million)
 - Video games (increasing from 7 million to 12 million)
 - Computer software (increasing from 4 million to 5 million)
- Films, video games and computer software saw increases in the estimated volumes of free content that was consumed too:
 - Films (increasing from 39 million to 44 million)
 - Video games (increasing from 10 million to 12 million)
 - Computer software (increasing from 9 million to 14 million)

- e-Books were the only content type which recorded a drop in the estimated volume of paid-for digital content, from 14 million in 2016 to 11 million in 2017. This content type also recorded a drop in the estimated volume of free digital content consumption, from 14 million to 12 million.
- Music too saw a drop in the volume of free content consumed (from 268 million tracks to 252 million tracks). This resulted in a shift in the proportion of digital music content being consumed for free, from 75% to 66%.
- TV programmes also saw a drop in the volume of free content consumed (from 113 million to 82 million). Again this resulted in a shift in the proportion of TV programme content being consumed for free, from 87% to 64%.
- The volume of e-Books consumed for free fell from 14 million in 2016 to 12 million in 2017. The proportions of digital content that is paid for versus free remain relatively stable, though (49% free in 2016 compared to 52% free in 2017).

We also looked at the volumes of digital content that were being consumed legally and illegally:

Table 6.1c: Legal vs. illegal content in digital formats

Volumes are in millions	Digital format		
	Legal content	Illegal content	
Music	Volume	315m	67m
	% of total	83%	17%
TV programmes	Volume	114m	14m
	% of total	89%	11%
Films	Volume	51m	20m
	% of total	71%	29%
e-Books	Volume	19m	4m
	% of total	83%	17%
Video games	Volume	19m	6m
	% of total	74%	26%
Computer software	Volume	15m	4m
	% of total	78%	22%

- We estimate that 67 million music tracks were consumed illegally online in the past three months. This is a drop of 11 million since 2016 (when it was estimated that 78 million had been infringed in the three month period).
- The estimated volume of infringed TV programmes has almost halved since 2016 (from 27 million to 14 million).
- The estimated volume of infringed film content has also fallen, from 24 million in 2016 to 20 million in 2017.
- Whilst music content continues to have the highest estimated volume of infringed content compared to the other categories, it is no longer the content type estimated to have the highest proportion of infringement amongst its consumers (falling from 22% in 2016 to 17% in 2017). Films, video games and computer software all record higher proportions of infringement; we estimate that 29% of all digital film content consumed is done so illegally (though this is down from 37% in 2016), 26% of all video games consumed are estimated to be done so illegally (up from 24% in 2016), whilst 22% of computer software is also estimated to be consumed illegally (a similar proportion to last year at 21%).

7. Consumer spend

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

7.1. Quarterly consumer spend amongst 12+ year olds

The table below shows, at a respondent level, the average spend¹⁵ by content types in the past three months across several 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 7.1a: Average consumer quarterly spend amongst 12+ year olds – all content types

	Music		Films		TV programmes		Computer software		e-Books		Video games	
Base: all those aged 12+ in the UK.	Mean	%	Mean	%	Mean	%	Mean	%	Mean	%	Mean	%
Purchases / rentals in physical format	£4.53	19%	£4.54	21%	£2.98	14%	£4.09	10%	£7.65	34%	£7.45	16%
Individual digital purchases	£1.56	10%	£0.93	6%	£0.95	6%	£1.28	4%	£0.95	6%	£2.27	6%
Online Subscriptions	£3.67	9%	£1.49	8%	-	-	-	-	-	-	-	-
Other	£13.87	18%	£11.07	38%	£1.47	8%			£1.73	9%	£2.17	8%
Total¹⁶	£23.57	32%	£20.06	47%	£5.40	19%	£5.37	11%	£10.33	38%	£11.90	19%

- Across the six key content types, music still has the highest average spend per person in the UK aged 12+ at £23.57, which is an increase from the £22.06 average spend in 2016. The drop in average spend on physical content (from £5.23 to £4.53) is offset by the increases in all other content types. The proportion of people who have spent anything on music content also remains stable since last year at 32% for both years.
- The film category has the next highest average spend at £20.06, up from £17.07 seen in 2016. There is a slight uplift in the proportion of people who have spent anything on film content, up from 45% in 2016 to 47% in 2017.

15 The mean is calculated from the total spent by all aged 12+ in the UK (i.e. including £0).

16 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.

- Video games also recorded an increase in average spend from £9.08 in 2016 to £11.90 in 2017. This is the result of slight increases in estimated expenditure for all formats. Similarly a slight increase is recorded in the proportion of people who have paid for such content, from 17% in 2016 to 19% in 2017.
- The average spend on computer software also increases from £4.66 to £5.37. Again, this is the result of slight increases in estimated expenditure for all formats. The proportion of people who have spent anything on computer software also remains stable since last year at 11% for both years.
- Yet there is a drop in the total spend on TV programmes, from £5.98 in 2016 to £5.40 in 2017. There has been a slight drop in the estimated average expenditure for physical formats (down from £3.32 to £2.98). No real shift in the proportion of people spending money on this content type though (18% in 2016 compared to 19% in 2017).
- The average spend on e-Books remains relatively stable at £10.33, compared to £10.46 in 2016) despite the drop in expenditure on physical content (from £8.07 to £7.65). Again, no real shift in the proportion of people spending money on this content type though (37% in 2016 compared to 38% in 2017).

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

Table 7.1b: Average consumer quarterly spend among legality groups – all content types

Bases for individual groups are included in brackets.	Music	Films	TV programmes	Computer software	e-Books	Video games
100% legal	£50.62 (1571)	£41.37 (1120)	£9.19 (1421)	£24.49 (471)	£26.84 (562)	£51.91 (643)
Mix of legal and illegal	£73.44 (132)	£59.60 (117)	£23.34 (167)	£19.00 (146*)	£21.58 (62*)	£62.25 (142*)
100% illegal	£20.32 (227)	£27.54 (187)	£6.45 (211)			

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

- The average consumer quarterly spend by those who have indicated that the content that they have consumed is done entirely illegally has increased for music, films and TV programmes.
- Yet for those who claim to consume all of their content legally, the average spend for all categories has fallen with the exception of video games which increased slightly (from £50.65 in 2016 to £51.91 in 2017).

The following table shows the total amount spent across all 12+ year olds in the UK by content type. The percentages refer to the proportion of the total spend attributed to the specific category:

Table 7.1c: Total quarterly spend estimates – all content types

Base: All 12+ year olds in the UK (5267)	Music		Films		TV progs.		Computer software		e-Books		Video games	
	Spend	%	Spend	%	Spend	%	Spend	%	Spend	%	Spend	%
Purchases / rentals in physical format	£243m	19%	£243m	25%	£160m	55%	£219m	76%	£410m	74%	£399m	63%
Individual digital purchases	£84m	7%	£50m	5%	£51m	18%	£69m	24%	£51m	9%	£122m	19%
Online Subscriptions	£197m	16%	£80m	8%	-	-	-	-	-	-	-	-
Other	£743m	59%	£593	61%	£79m	27%	-	-	£93m	17%	£116m	18%
TOTAL	£1,266m		£966m		£289m		£288m		£553m		£637m	

- Music continues to have the highest overall quarterly spend across the content types at an estimated £1,266 million (an increase from £1,183 million the previous year). Spend on music in physical format (£243 million) is down since last year (which recorded an estimated £280 million). Individual digital purchases also recorded a drop (from £96 million to £84 million). That said, the estimated quarterly spend on online subscriptions increased, from £170 million in 2016 to £197 million in 2017.
- The second highest estimated total quarterly spend was for films, which increased from £847 million in 2016 to £966 million in 2017. Like music, there was an increase in the estimated expenditure for online subscriptions (from £74 million in 2016 to £80 million in 2017). Yet unlike music, there was an increase in the estimated spend since last year on individual digital purchases (up from £39 million to £50 million). There was also an increase in expenditure on content in physical format, which is now at the same level as spend on physical music content (up from £237 million to £243 million).
- Video games also saw increases in estimated total spend across all content types, contributing to the increase in total estimated spending (up from £486 million to £637 million).
- Similarly, computer software saw increases in estimated total spend across all content types, thus increasing its total estimated spend to £288 million (up from £250 million in 2016).

- Yet TV programmes recorded a drop in its total quarterly spend estimate, from £320 million in 2016 to £289 million in 2017. This is driven by drops in physical format expenditure (from £178 million to £160 million), as well as on ‘other’ content (from £93 million to £79 million). Spend on individual digital purchases remains similar, at £51 million compared to £50 million the year before.
- e-Books also record a drop in its total quarterly spend estimate, from £560 million in 2016 to £553 million in 2017. This is also driven by drops in content purchased in physical format (from £433 million to £410 million). This is despite the increase in individual digital purchases from £46 million to £51 million.

8. Attitudes towards digital activities and copyright infringement

8.1. Motivations for general online activities

The survey includes several questions around consumer attitudes, with the aim uncover primary motivations for participating (and also, in the case of downloading, not taking part) in the activities covered – i.e. downloading, streaming / accessing and sharing content.

The following tables show the ranked prompted responses amongst those claiming to have participated in each of these activities in the past three months. We have included only those answers that gained a response rate of 6% 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.

Table 8.1a: Motivations for downloading (or not) content online

↑ Sig. increase (from 2016)

↓ Sig. decrease (from 2016)

DOWNLOADING CONTENT ONLINE	
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.?	
Base: All who had downloaded any of the six content types of interest in the past three months (2010)	
It's easier / more convenient	64% ↑
It's quicker	54%
It's cheaper	41%
I can access them more easily on the devices I have	33%
I can get them for free	29%
I can access them on the go	19%
It's more up to date	16%
The quality isn't noticeably different	15%
There was no physical version available	13% ↑
It's what everyone does	11% ↑
Other reasons	4%
What are the reasons that you have not downloaded any files in the past three months?	
Base: All with internet access who'd not downloaded any content in the past three months (2381)	
I'm not interested	63%
I prefer to have a physical copy	21%
I'm not sure how to do it	12%
They are too expensive	11%
I fear they may have viruses / malware / spyware	11%
I prefer to stream / access	10% ↑
I fear they could be illegal	8%
Physical copies are more flexible	5%
It is easier to buy physical copies	5%

Table 8.1b: Motivations for streaming or accessing content online

↑ Sig. increase (from 2016)

↓ Sig. decrease (from 2016)

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 (2740)	
It's easy / convenient	60%
It's quick	47%
It's easy to do	40%
It's free	39% ↓
For entertainment	30%
It means I don't have to download them	22%
To watch programmes I have missed (on TV)	21%
It's quicker than downloading	21%
It means I can try something before I buy it	16% ↑
It's cheaper than downloading	14%
It's what my friends or family do	6%
Some types of files are too expensive to buy	6%

Table 8.1c: Motivations for sharing content online

↑ Sig. increase (from 2016)

↓ Sig. decrease (from 2016)

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 (500)	
It's easy to do	44%
It's only fair	27%
It's what everyone does	27% ↓
I should be able to share my content with whomever I choose	21% ↑
It gives me status	17%
My friends / family can't access the files themselves	14%

- Since 2016, there has been little change in the motivations for downloading, streaming and sharing content.
- Convenience remains the prime motivator for all three types of online activity, with a significant increase recorded for downloading (up from 59% in 2016 to 64% in 2017) and a slight (not significant) increase for streaming / accessing (up from 58% in 2016 to 60% in 2017). A slight drop is recorded for sharing, though (decreasing from 46% in 2016 to 44% in 2017).
- Speed was also highly cited as a reason for downloading and streaming / accessing content. Whilst remaining stable at 47% on the year for the latter, the former records a slight (not significant) increase in the proportion of downloaders giving this reason (up from 52% in 2016 to 54% in 2017).
- The ability to access content for free is still more important for streaming / accessing than for downloading. That said, the former records a significant decrease in the proportion citing this reason (down from 43% in 2016 to 39% in 2017). The proportion of downloaders citing this has dropped slightly (not significantly) as well (down from 31% to 29%). Nevertheless, “it’s cheaper” remains the third most cited reason for downloading, and is stable at 41% in both 2016 and 2017.
- “There was no physical version available” was another reason given by downloaders for such activities (up from 11% in 2016 to 13% in 2017), though is still one of the least commonly cited reasons.
- “It means I can try something before I buy it” also increased significantly as a reason given for streaming (up from 13% in 2016 to 16% in 2017).
- “It’s what everyone does” as a reason for sharing content fell significantly since last year (from 35% in 2016 to 27% in 2017). That said, the proportion of people who cited that they “should be able to share my content with whomever I choose” did increase significantly on the year (up from 14% in 2016 to 21% in 2017).
- In terms of reasons cited for why people have not downloaded content in the past three months, the most commonly cited reason remained that they were ‘not interested’, with nearly two-thirds (63%) stating so (compared to 67% in 2016). There was a significant increase in the proportion who claimed that they ‘prefer to stream / access’ files (up from 6% in 2016 to 10% in 2017).

8.2. Attitudes towards online content

Respondents were also asked the following about their attitudes towards consumption of digital media more generally:

'To what extent do you agree or disagree with 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 (a net of 'strongly agree' or 'slightly agree') amongst all those with internet access (aged 12+), and then amongst the three legality groups (aggregated across all six content types):

Table 8.2a: Proportion of legality groups who agree with statements

↑ Sig. increase (from 2016) ↓ Sig. decrease (from 2016)	All aged 12+ with internet access	100% legal	Mix of legal and illegal	100% illegal
Base	4573	2254	546	201
Content that you download or access online should be cheaper than the equivalent purchased in a physical format	55% ↓	70% ↓	61%	42% ↓
It is wrong to access content online without the creator's / artist's permission	53%	62%	44%	32%
The rules governing what you can and can't do with content you purchase should be the same for both physical and online formats	46%	55%	45%	32%
If you have paid for a digital file then you should be able to share it with others	39%	45%	48%	39% ↑
It is easy to find content on the internet for free that would usually be paid for	36%	42%	55%	34% ↓
I think you should be able to download or access the content you want for free from the internet	33%	32%	51%	40% ↑
The price that you pay to download or access content online is generally about right	28% ↓	38%	31%	24%
I find it difficult to find legal content online	17%	18%	26%	21%

- There were some significant changes in the levels of agreement with the above statements between 2016 and 2017. The proportion of internet users aged 12+ who agreed that online content should be cheaper than the equivalent purchased in a physical format fell significantly (decreasing from 59% in 2016 to 55% in 2017). There were also significant drops amongst both those who consume all their content legally (down from 73% in 2016 to 70% in 2017) and those who consumed all their content illegally (down from 56% in 2016 to 42% in 2017). A slight (not significant) drop was also recorded for those who consume both legal and illegal content (down from 65% in 2016 to 61% in 2017).
- Yet there was also a significant drop in the proportion of internet users aged 12+ who agreed with the statement “the price you pay to download or access content online is generally about right” (decreasing from 30% in 2016 to 28% in 2017). When looking at those who infringe versus those who do not, the proportion of those who consumed all their content illegally that agree (24%) is much lower than amongst those who consumed all legal content (38%).
- The proportion of internet users who agreed with “you should be able to download or access content you want for free” remained stable, though amongst those who infringe all their content this increased significantly (up from 28% in 2016 to 40% in 2017).
- In terms of agreement with “if you have paid for a digital file you should then be able to share it with others”, the proportion of those who infringe all their content increased significantly (up from 24% in 2016 to 39% in 2017). Yet, the agreement levels fell slightly (not significantly) amongst those who consume content both legally and illegally (down from 52% in 2016 to 48% in 2017). Levels remain stable amongst those who consume legal content, though.
- The proportion of internet users who agreed with “it is easy to find content on the internet for free that would usually be paid for” remained stable amongst internet users 12+ overall, as well as those who consume all content legally. However, amongst both infringer groups the proportions of those who agreed with this fell slightly – the proportion of those who consume both legal and illegal content that agreed fell from 60% in 2016 to 55% in 2017, whilst the proportion of those who consume entirely illegal content fell significantly from 49% in 2016 to 34% in 2017).
- When looking at the issue of morality and infringement, there was a slight (not significant) increase in agreement with the statement that “it is wrong to access content online without the creator’s / artist’s permission” amongst those who consume both legal and illegal content (up from 41% in 2016 to 44% in 2017). That said, the proportion of those who consume all illegal content who agreed with this fell (decreasing from 39% in 2016 to 32% in 2017) thus widening the gap between these two groups.

8.3. Motivations for using paid services

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 note 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 8.3a displays the main reasons given for paying for online content:

Table 8.3a: Motivations for using paid services

↑ Sig. increase (from 2016) ↓ Sig. decrease (from 2016)	Any paid	100% legal	Mix of legal and illegal
Base	1749	1417	332
It's easier / more convenient	48%	50%	43%
It's quicker	41%	42%	37%
I don't want to use illegal sites	34%	38%	19%
They are better quality	27% ↑	26%	28%
I think it's morally wrong to use illegal sites	23%	25%	14%
I want to support the creators / industry	22%	24%	17%
I fear they may have viruses / malware / spyware	21%	22%	18%
I can afford to pay	18%	18%	19% ↑
I prefer to pay	15%	16%	14%
I don't think it's right to get them for free	15%	17%	8%
I'm unaware of the free services available	9% ↑	10%	6%
I fear I might be caught	8%	8%	11%
I don't know how to use the free services	6%	7% ↑	5%

- The reasons given for using paid services are very similar to those seen in the previous wave of research.
- Convenience remains the most commonly cited reason amongst those who have paid for content, including for those who accessed all their content legally and amongst those who have consumed a mixture of legal and illegal content.
- There was a significant increase in the proportion of those who have paid for content who claimed that the “better quality” of paid-for content drove them to do so (up from 24% in 2016 to 27% in 2017). This increase was driven by those who consume all their content legally (up from 23% in 2016 to 26% in 2017).
- 42% of those who use entirely legal services and have paid for content claimed that they used paid-for services because they are quicker, compared to 37% of those who use a mix of both legal and illegal services.
- There were some marked differences amongst the two legality groups over many of their other motivations. Those who consumed entirely legal content (38%) were much more likely than those who infringed some of their content (19%) to say that they do not want to use illegal sites. The former has actually increased since 2016, though (up from 35% in 2016), whilst levels remain stable for those who infringed some content. A similar story was evident in the proportions of those who claim “it is morally wrong to use illegal sites”, with 25% of those who consume entirely legal content providing this reason compared to 14% of those who use a mixture of legal and illegal services to access content.

8.4. Motivations for using illegal services

Respondents who indicated that they had infringed in the past three 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 8.4a: Motivations for using illegal services

↑ Sig. increase (from 2016) ↓ Sig. decrease (from 2016)	Any illegal	100% illegal	Mix of legal and illegal
Base	747	201	546
It is easy / convenient	45%	37%	48%
It is free	44%	38%	46%
It is quick	37% ↓	27% ↓	40%
It means I can try something before I buy it	19%	12%	21%
Because I can	18%	10%	21%
I can't afford to pay	13%	8%	16%
I think legal content is too expensive	12%	5%	14%
It's what my friends or family do	9%	6%	10%
I already owned the content in another format	7%	3%	8%
I've already paid to see it / them in the cinema / in concert etc.	7%	4%	8%
I don't want to wait for the content to become available on legal services	6%	1%	8%
The industry makes too much money	6%	3%	7%
I already spend enough on content	6%	3%	7%
The files I want are not available on legal services	5%	2%	7%
I don't think I should have to pay for files online	5%	3%	5%
Average number of aspects cited	2.6	1.9	2.8

- The reasons given for infringement activity remain largely similar. That said, convenience overtakes 'it is free' as the top reason amongst all infringers in 2017 (in 2016, 49% of infringers agreed gave 'it is free' as a reason compared to only 44% in 2017). Whilst those who consume a mixture of legal and illegal content are still more likely to cite 'it is free' as a reason than those who consume entirely illegal content, the aforementioned drop is the result of decreases amongst both infringer groups (those who consume a mixture of legal and illegal content falling from 52% in 2016 to 46% in 2017 and those who consume all their content illegally falling from 44% in 2016 to 38% in 2017).

- There was a significant drop in the proportion of infringers who claimed that speed of access was another driver for infringement (down from 42% in 2016 to 37% in 2017). This was primarily driven by a significant decrease for those who consumed entirely illegal content (decreasing from 36% in 2016 to 27% in 2017), though there was also a slight (not significant) drop amongst those who consume both legal and illegal content (down from 45% in 2016 to 40% in 2017).
- 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 (2.8 and 1.9 respectively).

Infringers were also asked:

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

Table 8.4b: Aspects that would encourage stopping accessing content illegally online

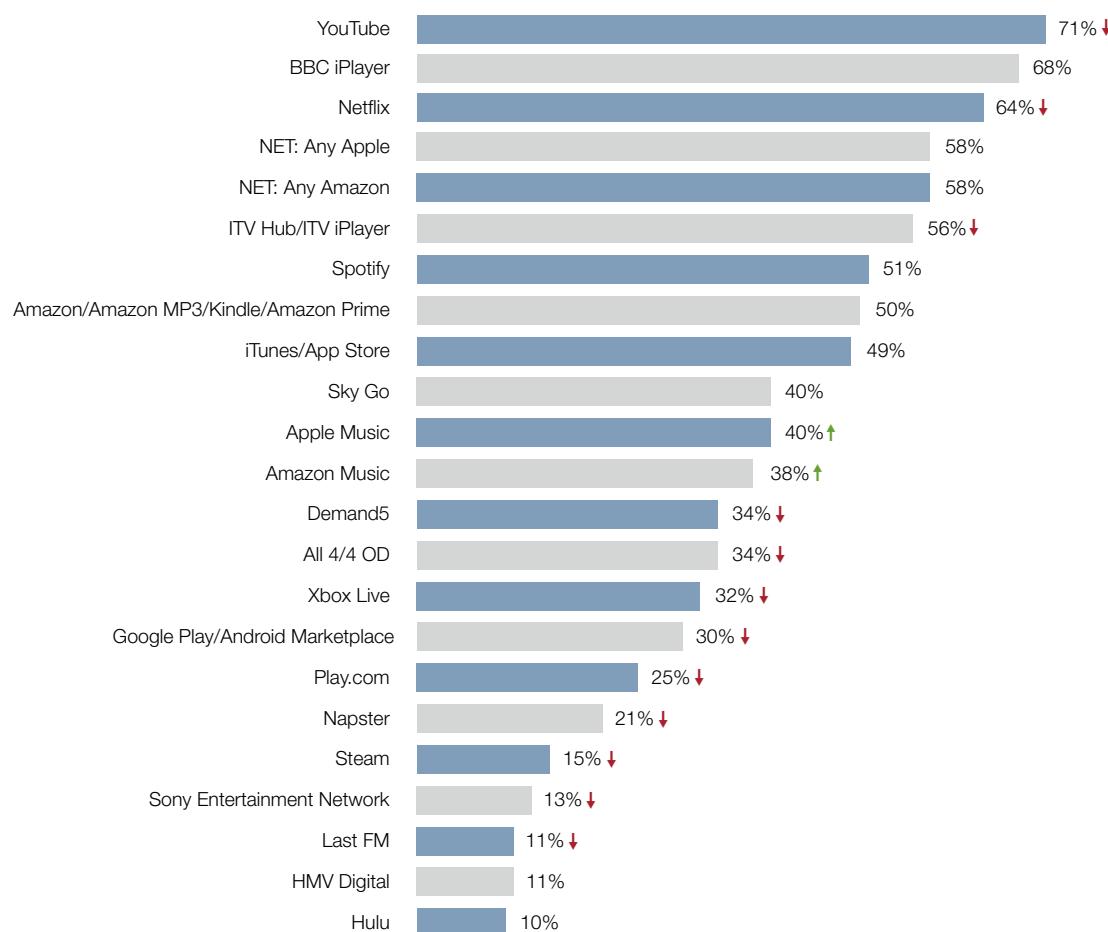
[↑] Sig. increase (from 2016) [↓] Sig. decrease (from 2016)	Any illegal	100% illegal	Mix of legal and illegal
Base	747	201	546
If everything I wanted was available legally	22%	13%	26%
If it was clearer what is legal and what isn't	22%	11%	26%
If legal services were cheaper	21%	15%	24%
If everything I wanted was available legally online as soon as it was released elsewhere	17%	6%	21%
If a subscription service I was interested in became available	16% ↑	9%	18% ↑
If I thought I might be sued	14%	11%	15%
If I thought I might be caught	13%	13%	14%
If legal services were more convenient / flexible	13%	5%	16%
If legal services were better	12%	6%	15%
If my ISP sent me a letter saying they would suspend my internet access	12%	5%	15%
If my friends or family were caught	10%	5%	12%
If I knew where to go to see whether something was legal or not	10%	4%	13%
If my ISP sent me a letter saying they would restrict my internet speed	9%	5%	10%
If my ISP sent me a letter informing me that my account had been used to infringe	8%	8%	8%
If everyone else stopped doing it	8%	7%	9%
If there were articles in the media about people being caught	6%	4%	7%
Nothing would make me stop	12%	15%	11%

- Many of the top aspects that would discourage infringement that were cited relate to content availability. “If everything I wanted was available legally” was the most commonly cited reason amongst infringers, with the proportion of those consuming a mix of legal and illegal content that claim this would deter them being twice as high as the group who consume entirely illegal content (26% compared to 13%).
- Another reason related to content availability was “if everything I wanted was available legally online as soon as it was released elsewhere”. Again, this saw a slight increase since 2016 (up from 14% in 2016 to 17% in 2017) and is primarily driven by those who consume a mix of legal and illegal content, with 21% citing this reason compared to 6% of those who consume entirely illegal content.
- A further reason related to content availability which recorded a significant increase in 2016 was “if a subscription service I was interested in became available” (up from 9% in 2016 to 16% in 2017). Again, this is primarily driven by those who consume both legal and illegal content with the proportion increasing significantly from 11% in 2016 to 18% in 2017.
- The second most cited aspect that would discourage infringement was “if it was clearer what is legal and what isn’t”. This has increased slightly since last year (up from 19% in 2016 to 22% in 2017).
- The drop since 2016 for “if legal services were cheaper” from 24% to 21% results in the aspect moving from the top to third place. This is primarily driven by a drop amongst those who consume entirely illegal content (down from 21% in 2016 to 15% in 2017), though the proportion of those who consume a mix of legal and illegal content giving this reason also falls slightly (down from 26% in 2016 compared to 24% in 2017).
- The threat of ISP’s taking action seemingly has comparatively less effect on predicted behaviour, with little difference in scores from 2016. The threat of having internet services suspended or restricted by their ISP remain largely stable, and there is a slight drop in the proportion of infringers claiming that receiving a letter informing them that their account had been used to infringe would deter them (down from 10% in 2016 to 8% in 2017).
- 12% of infringers claimed that “nothing would make them stop”, with the proportion of those who consume entirely illegal content (15%) being higher than those who consume a mixture (11%).

9. Awareness of lawful and licenced services

The following chart shows prompted awareness of lawful / licensed sites¹⁷ offering any of the six content types covered in this survey¹⁸. The figures below include people who also indicated that they had used any of these services in the past three months.

Chart 9.1a: Proportion of internet users aged 12+ aware of lawful / licenced online services (4573)



- YouTube retains its position as the top service that internet users are aware of. That said, it records a significantly lower awareness score than in 2016 (dropping from 78% in 2016 to 71% in 2017).

¹⁷ Please note that the brand lists changed in March 2017. This included merging 'Amazon / Amazon MP3 / Kindle' and 'Amazon Prime' for films and TV, hence these Amazon services have not been significance tested against 2016 data.

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

- BBC iPlayer has maintained its second position in the ranking and remains stable (69% in 2016, 68% in 2017).
- Netflix has maintained its third position in the ranking, though awareness has dropped significantly (from 68% in 2016 to 64% in 2017).
- ITV Hub / ITV Player also records a significant decrease, from 58% in 2016 to 56% in 2017.
- Awareness of Apple Music has increased significantly, from 37% in 2016 to 40% in 2017, whilst its competitor Amazon Music has increased significantly too, from 34% in 2016 to 38% in 2017. That said, Spotify remains ahead of both of these at 51% (the same as in 2016).

10. Confidence in knowing what is and is not legal

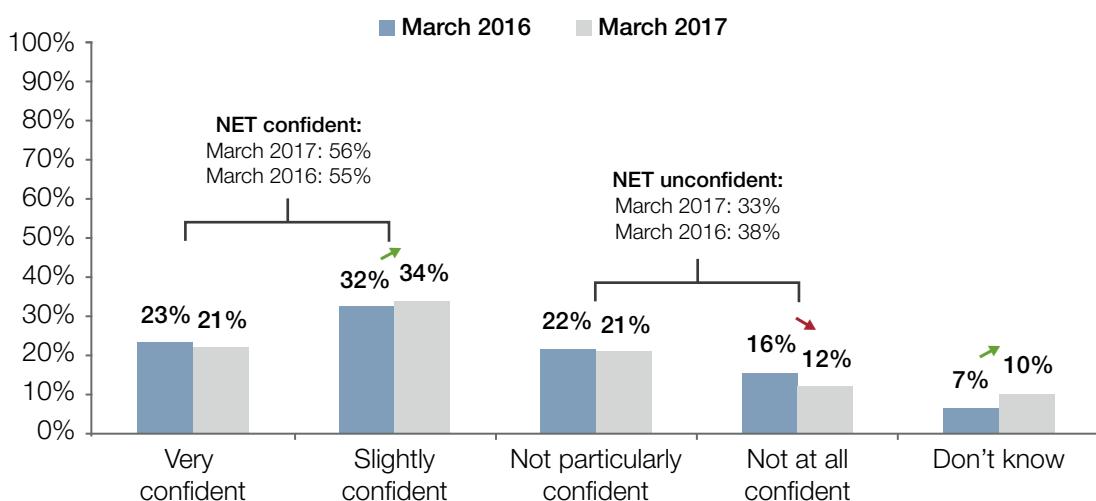
Respondents with internet access were asked the following question:

'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 group¹⁹.

Chart 10a: Confidence in knowing what is and is not legal online

Base: internet users aged 12+ (4573)

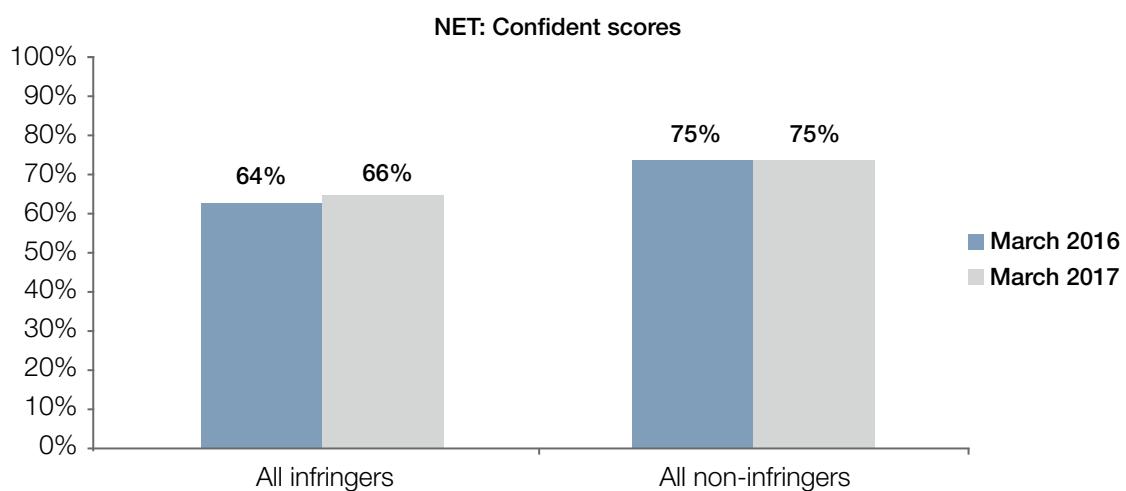


¹⁹ Socio-economic group is not included for 12-15 year olds, so this profile is among 16+ year olds.

- Over half of internet users (56%) claimed to be confident in being able to identify legal content from illegal content online. This remains largely in line with the proportion claiming to be confident in March 2016 (55%).
- The proportion of internet users claiming to not be confident in doing this has fallen significantly since last year (decreasing from 38% in March 2016 to 33% in March 2017). This is the result of a fall in respondents claiming that they are ‘not at all confident’ but a subsequent increase in the proportion claiming they ‘don’t know’.
- When analysing this by those who infringe any of the six key types of content versus those who do not, we see that those who do not infringe claim to be more confident at identifying illegal content than those who do.

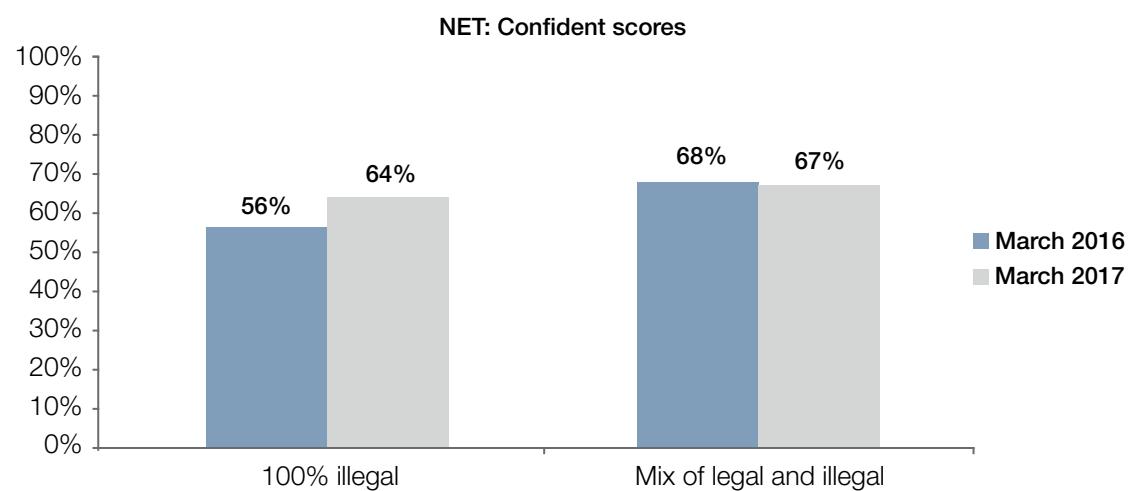
Chart 10b: Confidence in knowing what is and is not legal online (infringers versus non-infringers) – ‘net: confident’ scores

Base: all those who have infringed any of the six key content types (747), all those who have not infringed any of the six key content types (2254)



There are also some differences between those who infringe all their content when compared with those who infringe some of their content:

Chart 10b: Confidence in knowing what is and is not legal online ('100% illegal' versus a 'mix of legal and illegal') – 'net: confident' scores



There has been a significant increase in the proportion of those who consume entirely illegal content who claim to be confident in identifying whether content is legal or not. That said, they track slightly behind the level seen for those who consume a mixture of legal and illegal content.

11. Technical appendix

11.1. 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 study²⁰ 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 an online methodology are as follows:

- It is the most suitable and relevant methodology for the subject matter
- It appears to be the most likely to generate honesty, due to being entirely self-completion
- 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 amongst all adults.

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

- Reduces coverage of those aged 65+ years old 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.

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.

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

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 the IPO 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.

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 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.

11.2. Fieldwork dates

Seven 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 2013
- Wave 5: March 2015
- Wave 6: March 2016
- Wave 7: March 2017

We recommend that for tracking purposes the latest data should only be compared against March 2013 data onwards. It is also important to note that there is a two-year gap between March 2013 and March 2015.

11.3. The sample

Sample structure

The table below shows the breakdown (by data collection methodology) of the sample sizes:

Methodology	Description	Sample Size
Online (CAWI) adults	16-64 year olds who use the internet at least once a day	2869
Face-to-face (CAPI) adults	16-64 year olds who use the internet less than once a day 16-64 year olds without internet access All 65+ year olds	1360
Online (CAWI) 12-15s	All 12-15 year olds with internet access	1038
TOTAL	All 12+ year olds in UK	5267

Sample selection

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

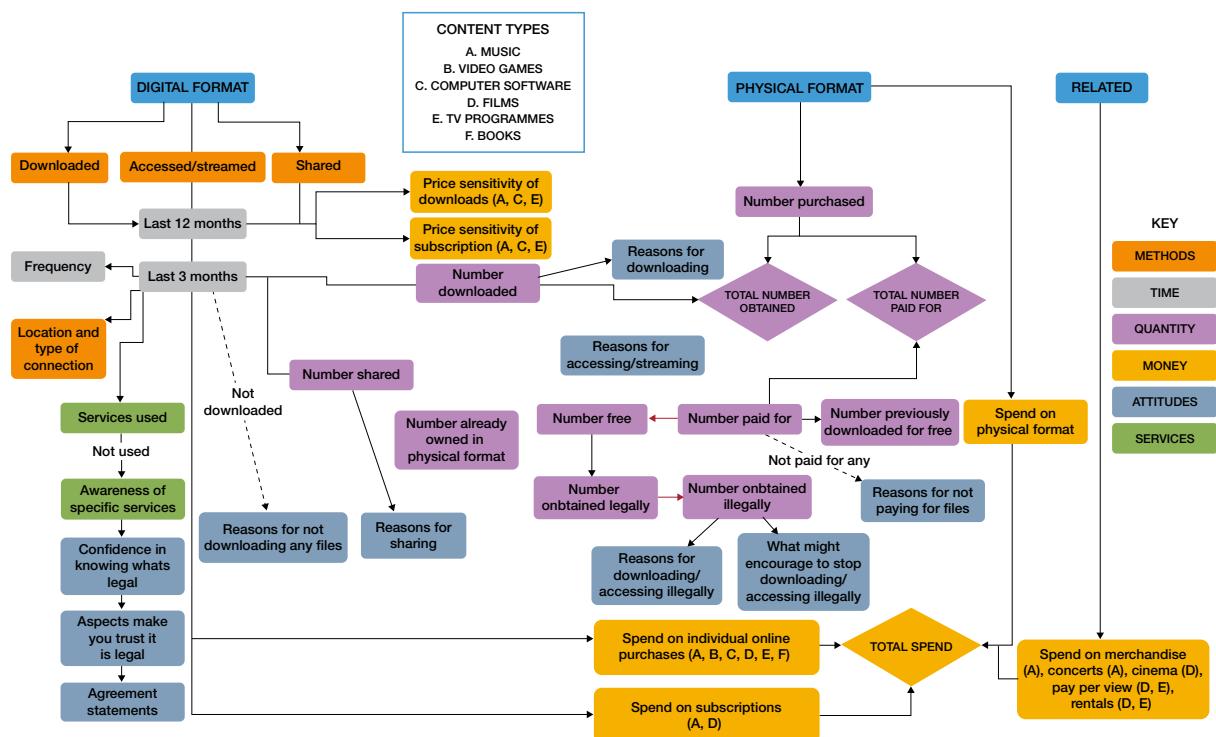
Online interviews (adults 16+): The sample was initially selected using demographic information already held, from Kantar's 'Lightspeed' consumer panel (this information is regularly updated, since it is a fully managed panel). The panellists were invited via email to take part in the survey, and demographic 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.

11.4. The questionnaire

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



11.5. Weighting

Data was weighted on three different measures (among all 12+ year olds, including those without internet access) 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.

11.6. 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.

11.7. Magazine consumption

For the second year running, we also included a limited number of market sizing questions for online magazine consumption. Below are the key findings detailed from this.

5% of internet users aged 12+ claimed to have consumed magazine content online in the past three months (up from 4% in 2016). 2% have downloaded such content, and 4% have accessed it online. 1% have shared it with others over the internet.

Consuming this content was most frequently done directly from the magazine website with 19% of digital magazine consumers doing so (a similar level to 2016 when 18% claimed to) whilst Google was the second most used source, with 18% claiming to use it. The proportion who use Amazon fell significantly from 21% in 2016 to 13% in 2017, as did it for Google Play / Android Marketplace which fell from 17% in 2016 to 10% in 2017.

11.8. Digital images

This year, we included a limited number of market sizing questions for digital images (in terms of downloading or copying and sharing). Below are the key findings detailed from this.

6% of internet users aged 12+ claimed to have downloaded / copied digital images in the past three months, whilst 5% claimed to have shared these.

Over half (55%) of those who downloaded / copied or shared such images did so via Facebook, whilst just under half (46%) did so via Google.

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