

How we consume culture 2013-2018:
Findings from the Online Media Behaviour Analytics
(OMeBa) project, interrogating a large scale UK
tracker survey

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A brief history of the OCI surveys

- Under the Digital Economy Act (DEA 2010), UK communications regulator Ofcom acquired an obligation to monitor copyright infringement. Sections 11 and 12 provided for a code under which Internet Service Providers would have to limit Internet access to infringers which would have been enacted by a Statutory Instrument (this was laid before Parliament twice but never passed).
- The Hargreaves Review of Intellectual Property and Growth recommended in 2011 that Ofcom should not wait until its formal reporting duties arising from the Digital Economy Act began, and start immediately to gather independent data so that trends could be established. The Government adopted this recommendation and tasked Ofcom and IPO to work together.
- Ofcom worked with market research company Kantar to develop a survey instrument to capture both lawful and unlawful consumption of online content. The first 4 waves of the survey were run in 4 subsequent quarters in 2012 and 2013 with a large sample size (4,400 individuals, representative of UK 12+ population), and a hybrid online and face-to-face survey methodology (520+ different questions with 5,000+ data points).
- Waves 5 - 8 were commissioned by the IPO since 2015, again from Kantar, and always run in Q2 (March-May) to match Wave 4. Wave 9 (2019) was commissioned from a new supplier, AudienceNet. No survey was conducted in 2014.

Why attractive for creative industries research beyond copyright infringement?

Demographics	Access to and use of services
Gender Age Social class (ABC1, C2DE) Marital status Working status Presence of children (age, gender) Number of adults in household VPN use (from 2015)	Internet Access Frequency of Internet Use TV Services Sites or services used to download / stream or access / share (from 2015) Subscriptions (from 2016)
Reported behaviour	Attitudes and perceptions
Music - Games - Computer Software - Films - TV Programmes (including Sport programmes from 2018) - Books Spend Frequency of downloading / streaming / sharing Total number of works downloaded / streamed / shared Paid v Free	Awareness of online services Statements / Opinions Personal reasons / Motivations Confidence about what is and is not legal online What would make infringers stop infringing Willingness to pay (removed in wave 8)

Rich behavioural data. Infringements constructed from use and pay variables. Example – 2013
“deep dive”: *Number of illegal files = files downloaded + files streamed - files paid for - legal files*

Access to and use of services

Sites or services used to download / stream or access / share

Which **sites or service** have you used in the past 3 months to download, stream\access, or share **MUSIC** tracks or albums through the internet? Please read the list through carefully and indicate all that apply.

All variables

- 7 Digital
- Amazon \ Amazon mp3 \ Kindle
- Amazon Music **(from wave 6)**
- Apple Music **(from wave 6)**
- A messaging app (e.g. Facebook Messenger, WhatsApp) **(added in wave 8)**
- BitTorrent software
- Deezer **(added in wave 8)**
- eDonkey \ eMule
- Email
- eMusic
- Facebook
- FilesTube **(removed in wave 8)**
- Free music download app (on a mobile phone or tablet PC)
- FTP software
- flvto.biz **(added in wave 8)**
- Gnutella
- Google (Search Engine)
- Google Play \ Android Marketplace
- Grooveshark
- HMV Digital
- Isohunt
- iTunes \ App Store \ ibookstore \ Apple Store
- Kodi **(added in wave 7)**
- KickAssTorrents **(removed in wave 7)**
- Last FM **(removed in wave 8)**
- Listentoyoutube.com **(added in wave 8)**
- Limewire **(removed in wave 7)**
- MediaFire
- MP3Skull
- Napster
- Pandora **(added in wave 7)**
- Pirate Bay
- Play.com **(removed in wave 8)**
- Rapidshare **(removed in wave 8)**
- Rhapsody **(added in wave 7)**
- Software or service used to convert an online stream to a file
- Sony Entertainment Network - Music Unlimited \ Video Unlimited \ Playstation Network
- Spotify
- Soundcloud
- Tesco **(removed in wave 8)**
- Tidal **(added in wave 6)**
- Torrentz **(removed in wave 7)**
- uTorrent
- Vevo **(added in wave 8)**
- We7 **(removed in wave 8)**
- Windows Messenger **(removed in wave 7)**
- www.clipconverter.cc **(added in wave 6 and removed in wave 8)**
- Yousendit **(removed in wave 8)**
- YouTube
- youtube-mp3.org **(added in wave 6 and removed in wave 8)**
- Zune **(removed in wave 8)**
- Other website or service
- None/haven't used **(removed in wave 8)**
- Don't know **(removed in wave 8)**

Have you [downloaded / streamed or accessed / shared] any of the following [ever / in the past three months]?

Variables present from wave 4 (2013) to wave 8 (2018)

- Yes - music tracks or albums (excluding online radio stations)
- Yes - music videos
- Access to the Internet at home on a games console
- Yes - video games (excluding patches and upgrades)
- Yes - computer software (excluding mobile phone apps, and patches\upgrades to software already owned)
- Yes - TV programmes
- Yes - Short video clips
- Yes - e-books
- Yes - other type of file
- No
- Don't know

Spend: Music – Games – Computer Software – Films – TV Programmes – Books

Variables have remained the same from wave 4 (2013) to wave 8 (2018)

Approximately how much have you spent on the following in the past 3 months? Please include money spent on other people, where they haven't paid you back. Enter your best estimate in pounds and pence.

- Music concerts or gigs
- Music merchandise
- Music tracks or albums bought on CD or vinyl
- Music tracks or albums downloaded or streamed/accessed online
- Music subscriptions

OMeBa – Harmonized QIDs

	A	B	C	D	E	F	G	H	I
1					Wave 4	Wave 5	Wave 6	Wave 7	Wave 8
2	#	Root Q	Variable Label	Regularised QID	QID	QID	QID	QID	QID
3	▼	Q.A Do you have any of the following? (Internet Access)	▼ Access to the Internet at home on a computer\laptop	▼ qa_01	▼ qa_01	▼ qa_01	▼ qa_01	▼ qa_01	▼ qa_2
4	2		Access to the Internet at work on a computer\laptop	qa_02	qa_02	qa_02	qa_02	qa_02	qa_3
5	3		Access to the Internet at home on a games console	qa_03	qa_03	qa_03	qa_03	qa_03	qa_4
6	4		Internet at home through your TV screen via a computer	qa_04	qa_04	qa_04	qa_04	qa_04	qa_5
7	5		Internet at home directly through your TV set i.e. Smart\Connected TV)	qa_05	qa_05	qa_05	qa_05	qa_05	qa_6
8	6		Access to the Internet via a mobile phone	qa_06	qa_06	qa_06	qa_06	qa_06	qa_7
9	7		Access to the internet on a tablet computer e.g. iPad	qa_07	qa_07	qa_07	qa_07	qa_07	
10	8		Access to the Internet on a Palmtop or Personal Digital Assistant (PDA)\Pocket PC	qa_08	qa_08				
11	9		Access to the Internet at school\college \university on a computer	qa_09	qa_09	qa_08	qa_08	qa_08	
12	10		Internet access from a library on a computer	qa_10	qa_10	qa_09	qa_09	qa_09	
13	11		Internet access in a cafe\bar on a computer	qa_11	qa_11	qa_10	qa_10	qa_10	
14	12		Internet access at a friend's or relative's house on a computer	qa_12	qa_12	qa_11	qa_11	qa_11	
15	13		Other Internet access	qa_13	qa_13	qa_12	qa_12	qa_12	
16	14		An e-mail address at home	qa_14	qa_14	qa_13	qa_13	qa_13	
17	15		An e-mail address at work	qa_15	qa_15	qa_14	qa_14	qa_14	
18	16		Other e-mail address	qa_16	qa_16	qa_15	qa_15	qa_15	

Questions

Intersecting

Non-intersecting

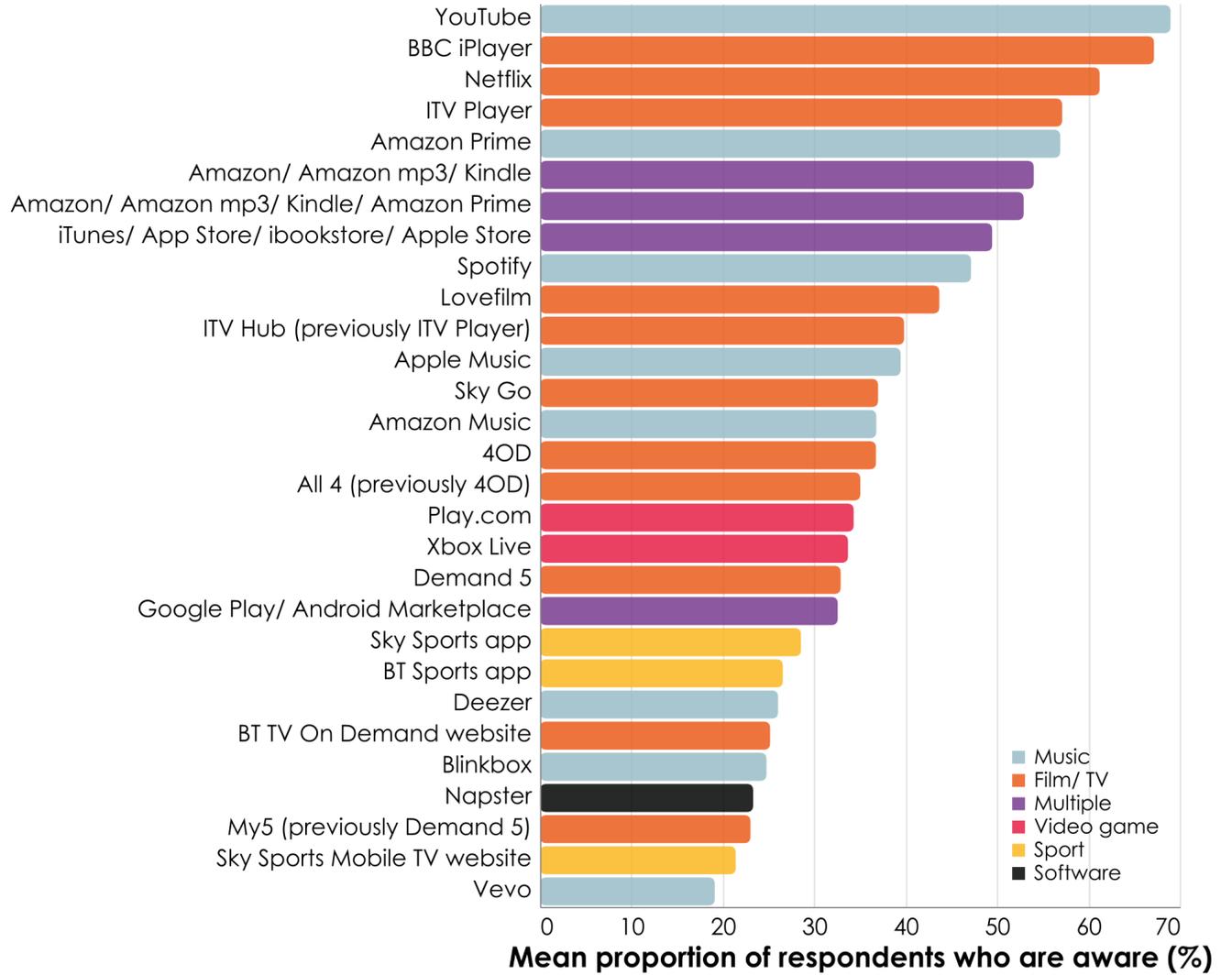
Demographics

+

People report **highest use for audio-visual and music** services.

In comparison, **fewer** people report using online services for **video games, or books.**

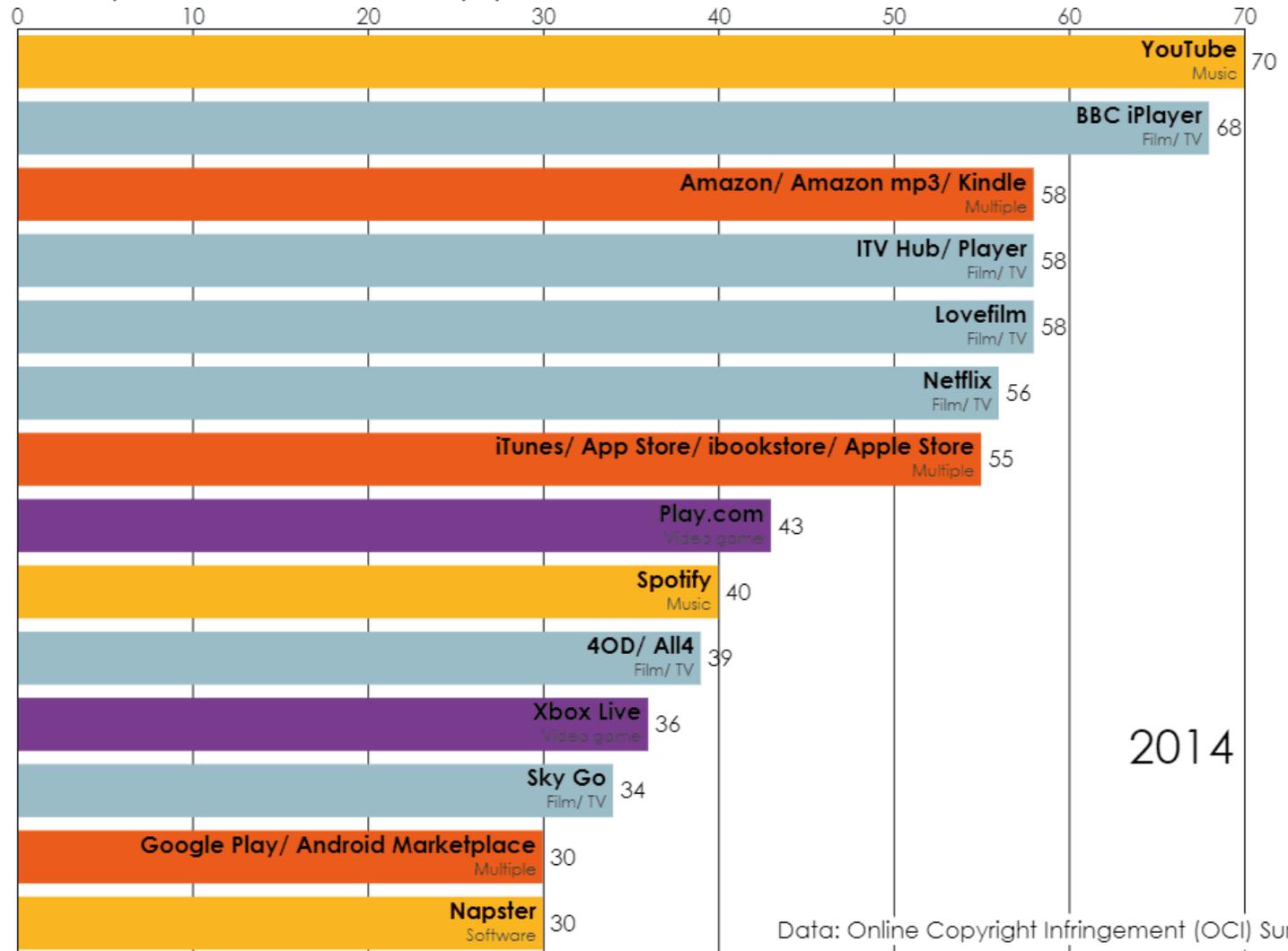
Most well-known digital consumption platforms (2013-2018)



Visualisation by Raphael Leung, Nesta from OMeBa consolidated data of OCI surveys.

Most well-known online culture consumption platforms

UK respondents' awareness (%) from 2014 to 2018



From 2013 to 2018:

Well-known music services increased from 2 to 4: YouTube & Spotify joined by Apple Music & Amazon Music.

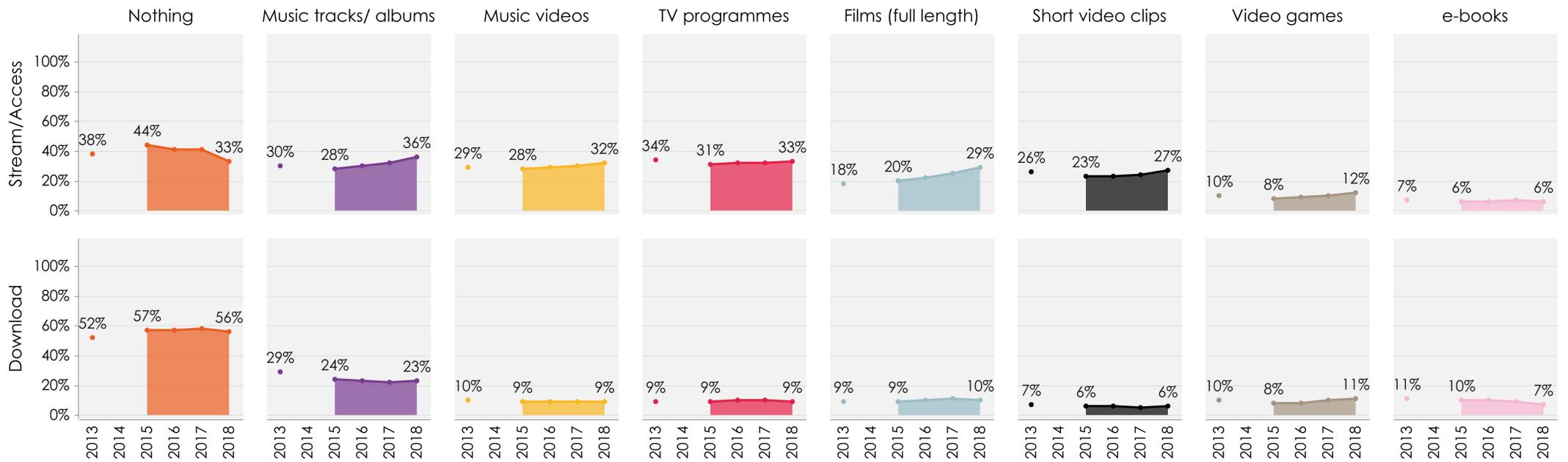
Others have **dropped out:**

LoveFilm (a DVD-by-mail company) folded
Play.com

Visualisation by Raphael Leung, Nesta from OMeBa consolidated data of OCI surveys.

Trends in digital culture consumption by content type and method of access

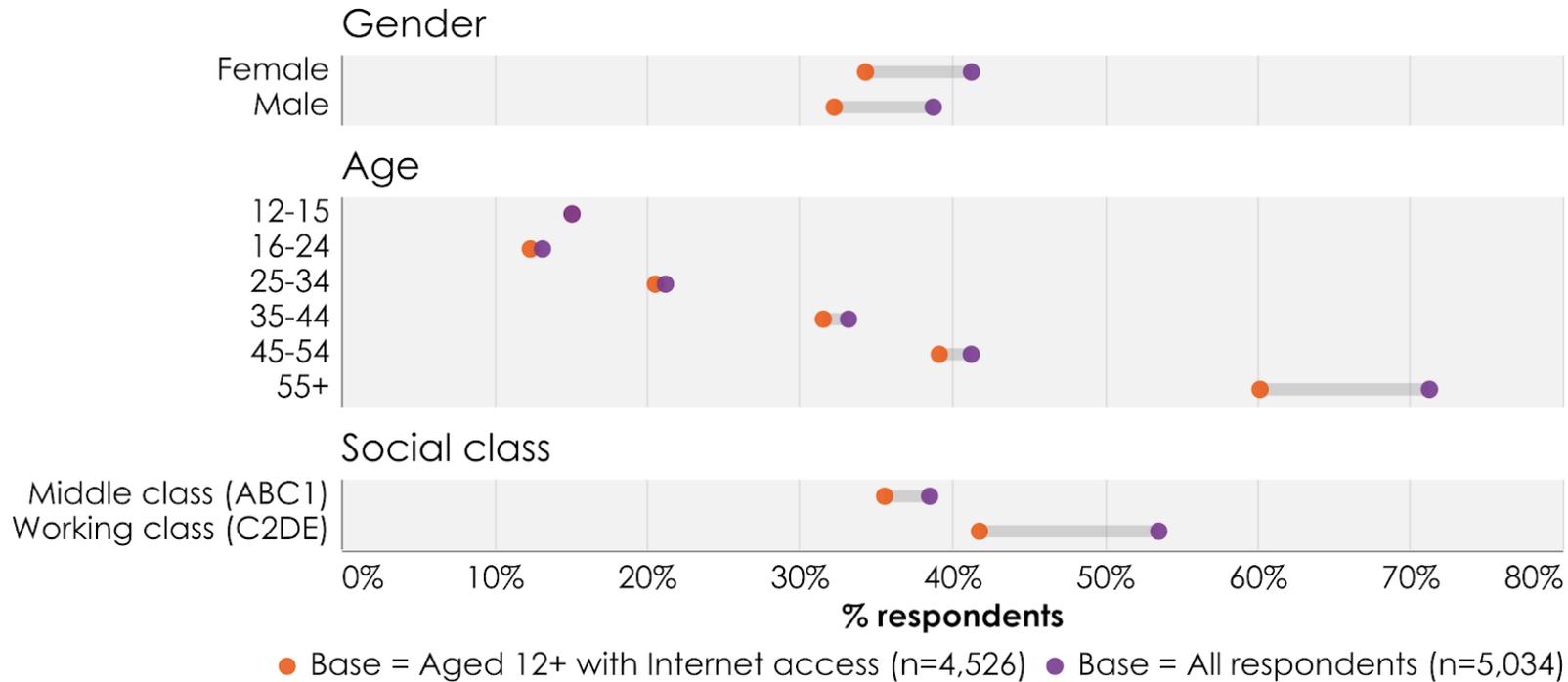
Charts show % of UK online population aged 12+ with consumption in the past 3 months. Values for 2013 and 2018 are labelled. No survey in 2014.



Visualisation by Raphael Leung, Nesta from OMeBa consolidated data of OCI surveys.

Who are the non-streamers?

Respondents who streamed/ accessed nothing digitally in the past 3 months (2018)

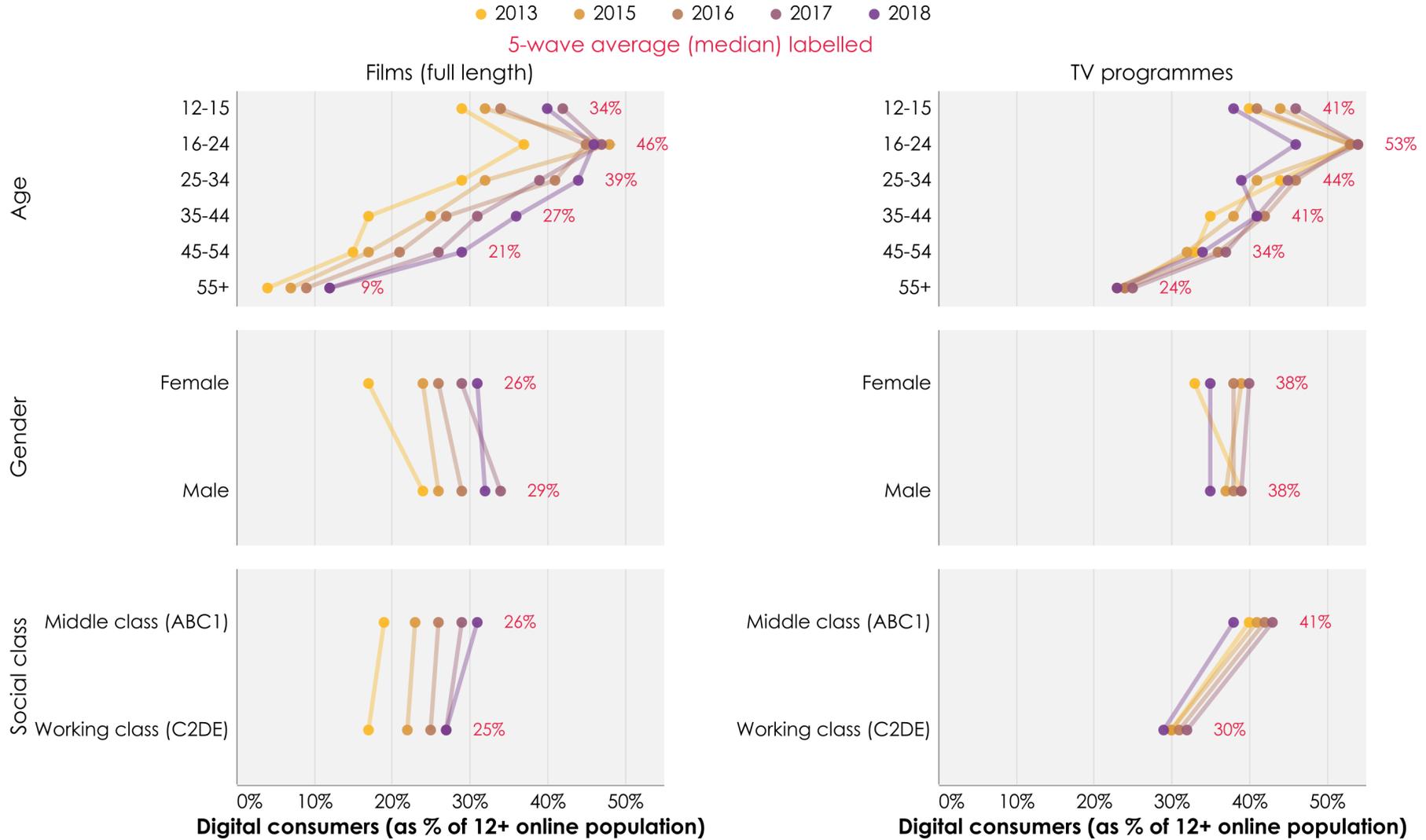


Visualisation by Raphael Lemg, Nesta from
 OMeBa consolidated data of OCI surveys.

60% of respondents above the age of 55 with Internet access said they stream/accessed nothing in the past 3 months. Only 12% of those aged 16-24 said they were digital non-streamers. Social class also plays a factor: 36% of middle class (ABC1) respondents with Internet access reported to have streamed nothing in the last 3 months, whereas for working class (C2DE) respondents that proportion was 42%.

How the demographics of digital consumers of film/TV are changing

Digital consumption = respondents saying they streamed/ accessed/ downloaded specified media in the past 3 months



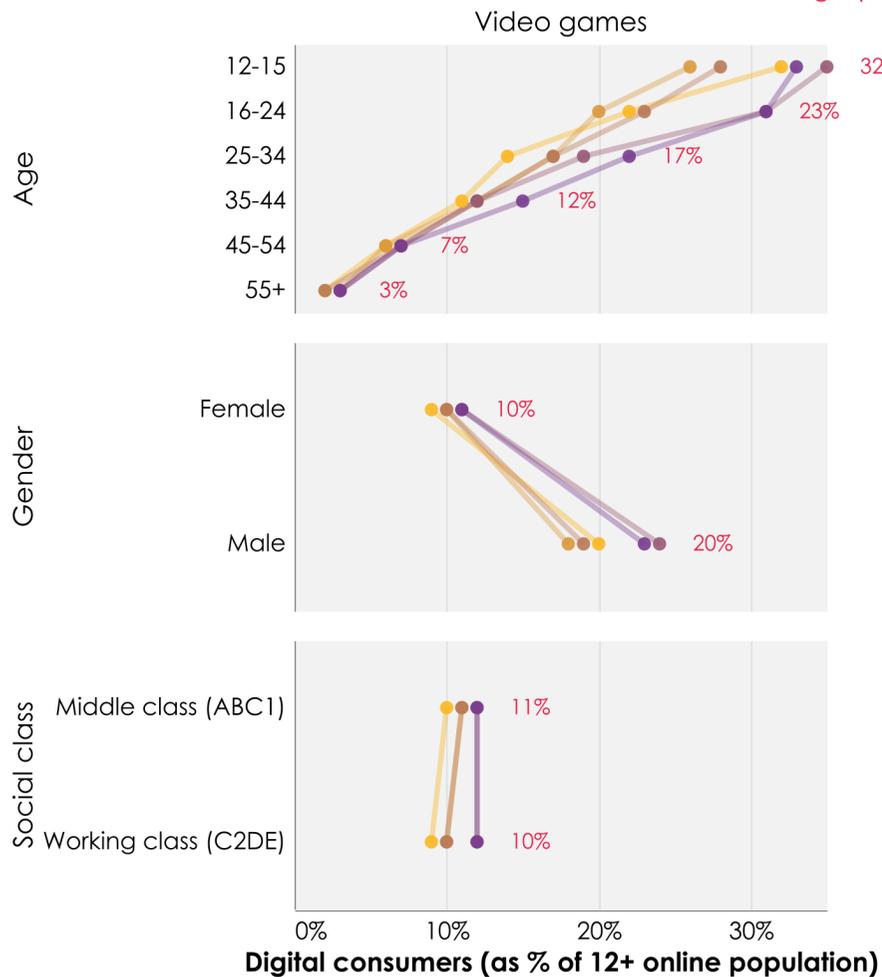
Visualisation by Raphael Leung, Nesta from
 OMeBa consolidated data of OCI surveys.

How the demographics of digital consumers of games & e-books are changing

Digital consumption = respondents saying they streamed/ accessed/ downloaded specified media in the past 3 months

● 2013 ● 2015 ● 2016 ● 2017 ● 2018

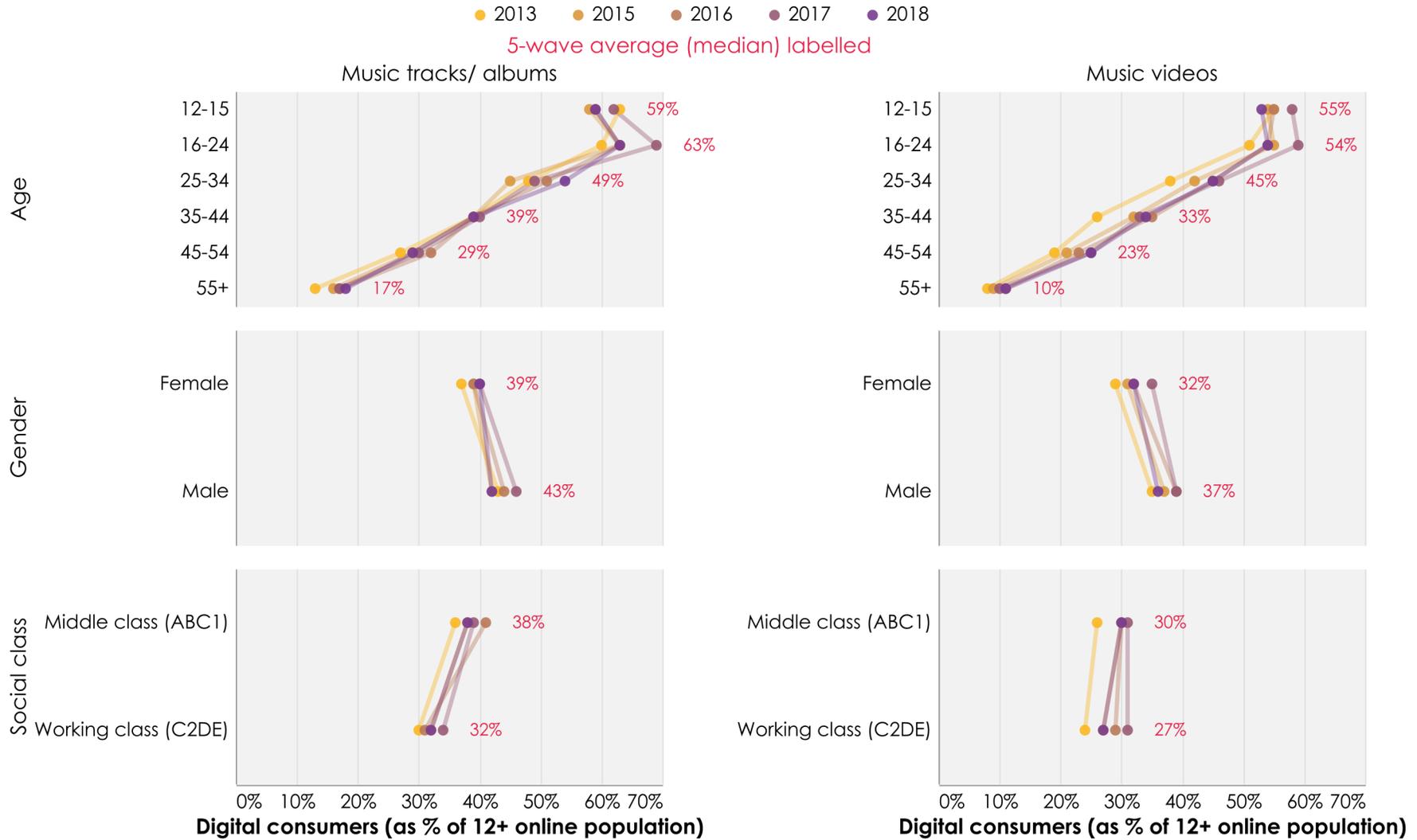
5-wave average (median) labelled



Visualisation by Raphael Leung, Nesta from OMeBa consolidated data of OCI surveys.

How the demographics of digital consumers of music are changing

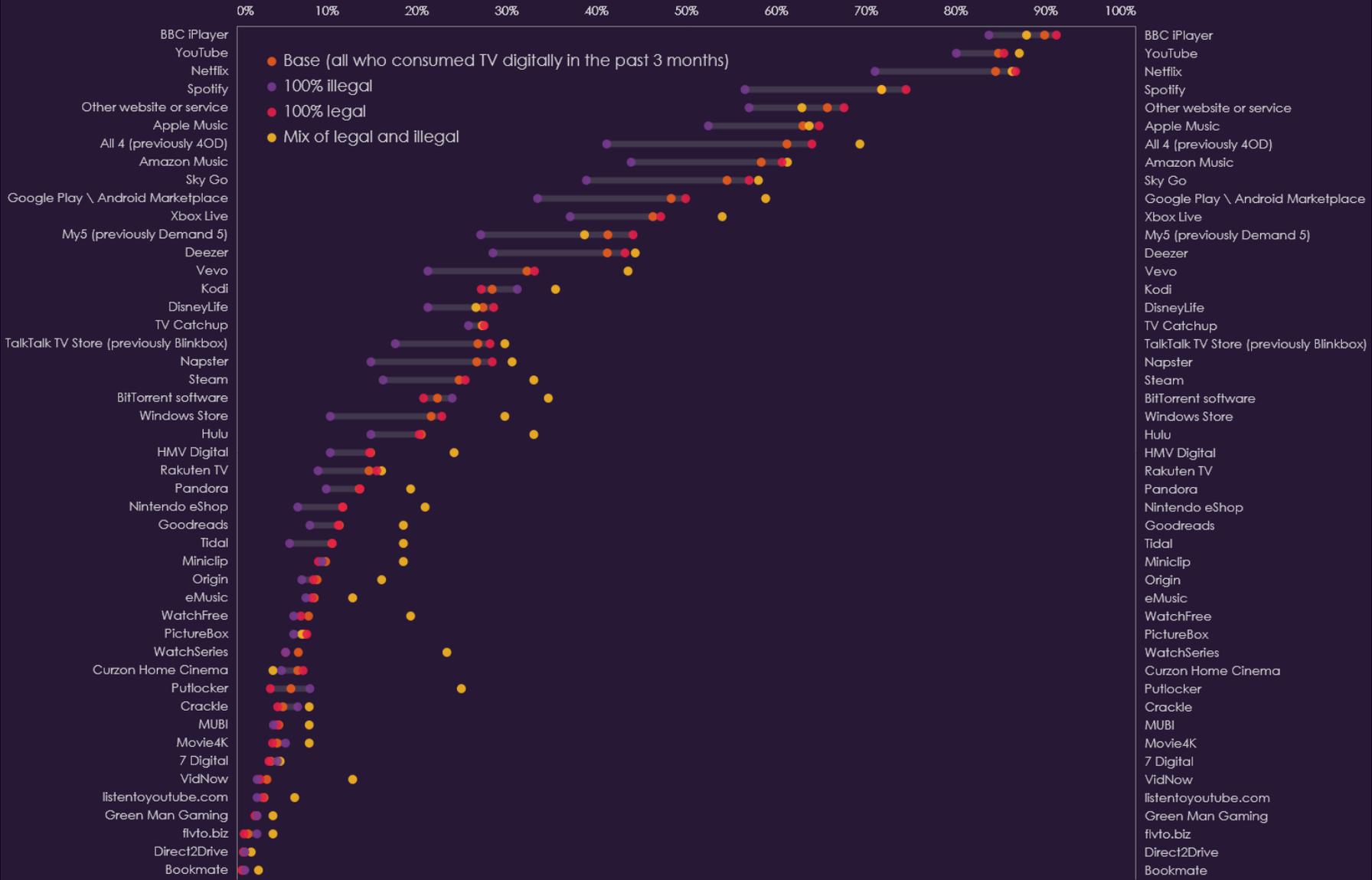
Digital consumption = respondents saying they streamed/ accessed/ downloaded specified media in the past 3 months



Visualisation by Raphael Leung, Nesta from OMeBa consolidated data of OCI surveys.

Lower awareness of legal platforms among those who only watch TV online from illegal sources

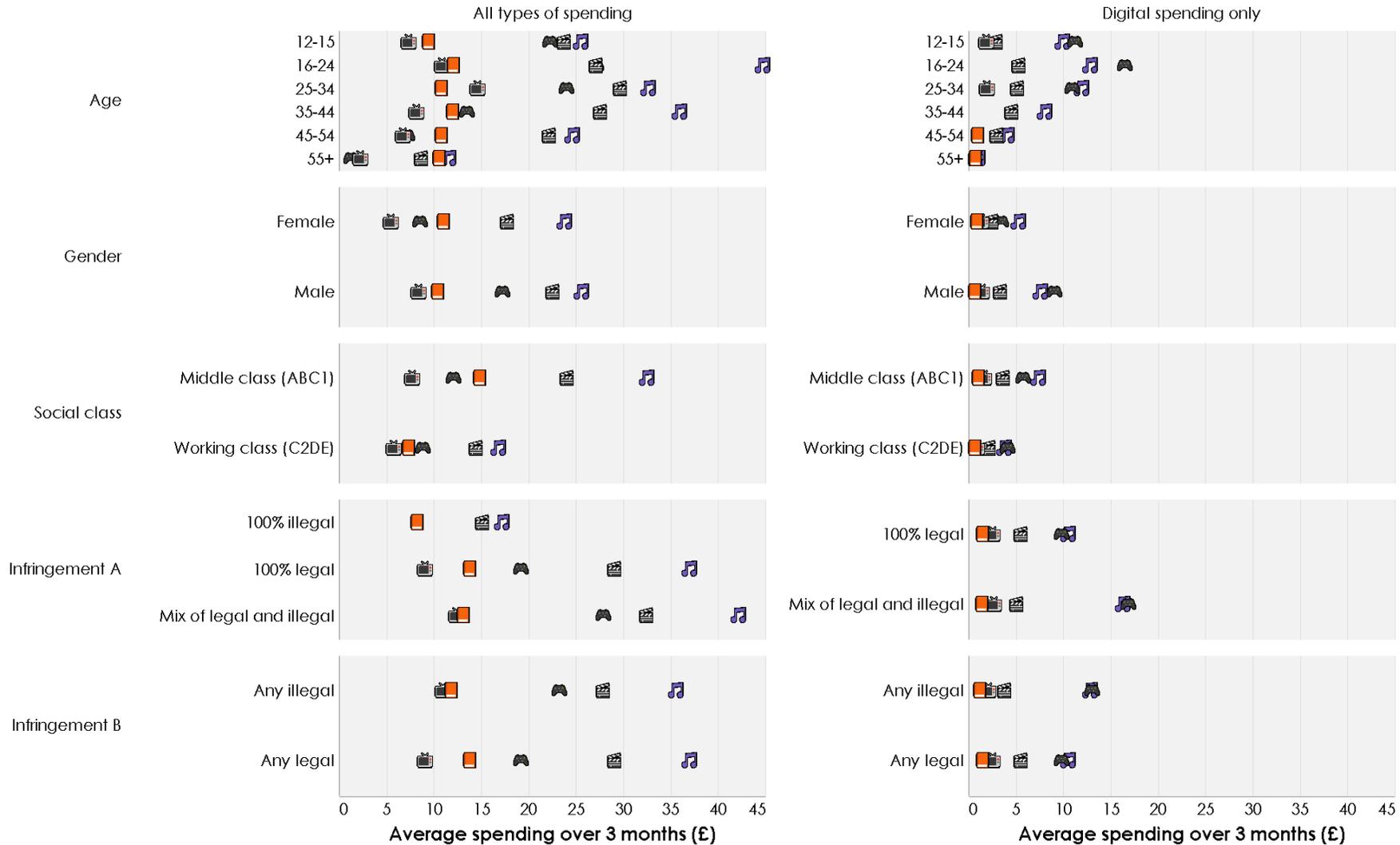
Awareness among respondents in 2018 (%)



Visualisation by Raphael Leung, Nesta from OMeBa consolidated data of OCI surveys.

Average quarterly spending broken down by content type and demographics in 2018

🎵 = Music 🎬 = Film 📺 = TV 🎮 = Video games 📖 = Books | Demographic/ behavioural groups with <50 non-zero spending responses are excluded.

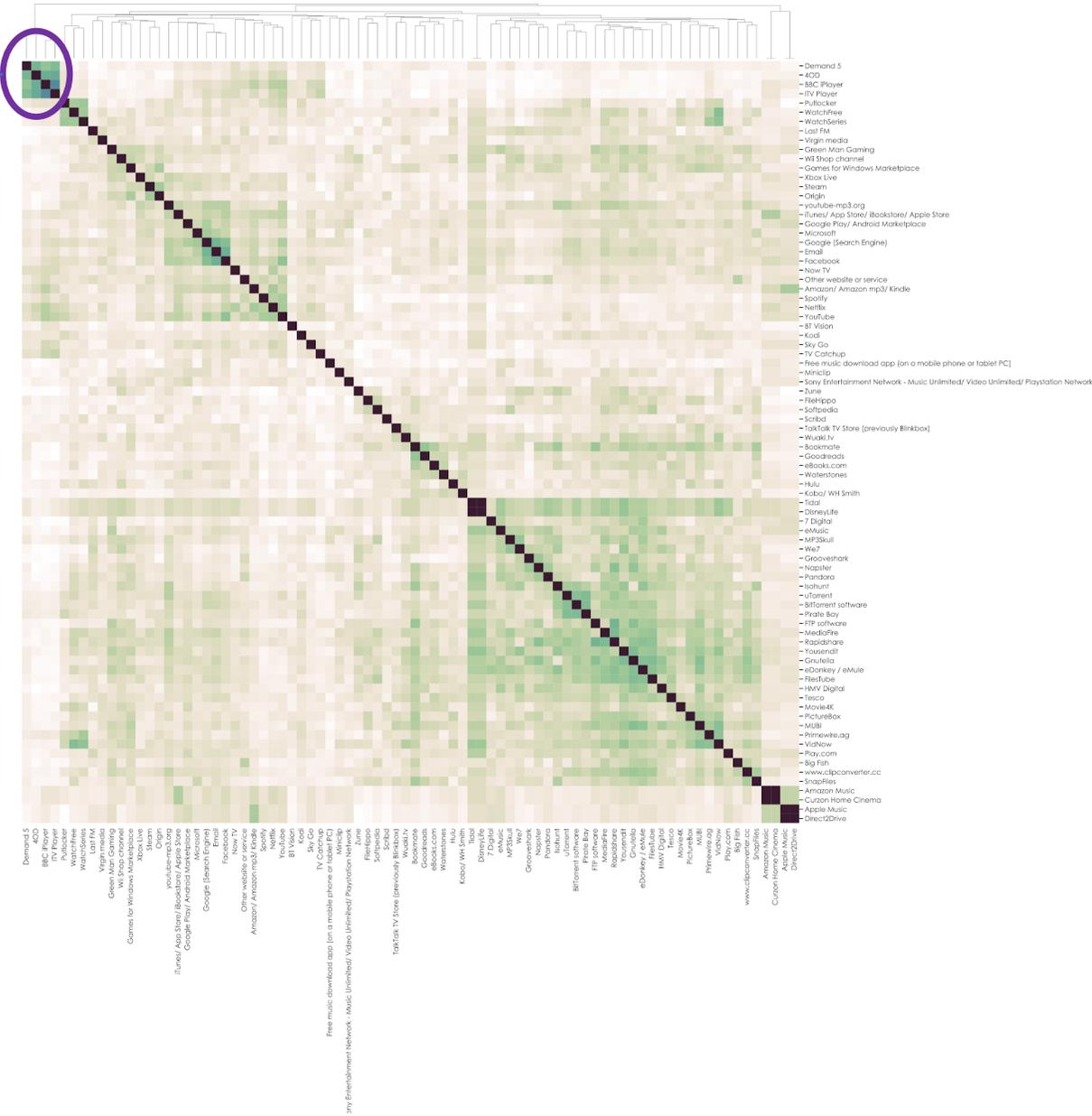


Visualisation by Raphael Leung, Nesta from OMeBa consolidated data of OCI surveys.

Demand 5
4OD
BBC iPlayer
ITV Player

There are clusters of services that people often use together, but digital consumption mostly **does not occur in silos of content types.**

Visualisation by Raphael Leung, Nesta from OMeBa consolidated data of OCI surveys.



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About

OMeBa (Online Media Behaviour Analytics) is being developed by CREATe to bring together the [Online Copyright Infringement \(OC\) Tracker surveys](#) carried out by [Kantar](#) (until 2018) and [AudienceNet](#) (2019-) on behalf of [Ofcom](#) and the [Intellectual Property Office](#). The surveys explore online behaviour, copyright infringement and digital consumption in relation to six main types of online content: music, film, TV programmes, books, video games and computer software. The surveys were originally developed as a response to the obligation on Ofcom in the Digital Economy Act 2010 to monitor copyright infringement.

CREATe identified a need in the academic, policy and industry communities for direct access to these surveys and easy interpretation of each wave of data as an individual and as part of a longer study of online behaviour. OMeBa makes these different waves of the study accessible for industry, researchers and policy makers by presenting an interface that will allow you to look at specific answers to the 520+ questions in the surveys. OMeBa connects the coded results with the original questions, allowing easy extraction of the entire dataset or of selected variables – for example, internet demography or spending. Results are presented in visual form. You can then cross tabulate the results and investigate the trends in online behaviour that interest you or your business in an easy and meaningful way. OMeBa also allows you to import selected data from the surveys into statistical analysis packages. You can find out more about how to do this by looking at our [Examples](#), at our [Tutorial](#) or by using the [New Search](#) function.

To find out more information about the original reports and to download the published data from each of the waves of the survey please click on the links below. Please note that - in order to allow longitudinal comparisons - OMeBa only interrogates data from wave 4 onwards, as these were conducted in the same quarter of the year.

[Wave 8 : March - May 2018](#)
[Wave 7 : March - May 2017](#)
[Wave 6 : March - May 2016](#)
[Wave 5 : March - May 2015](#)
[Wave 4 : March - May 2013](#)
[Wave 3 : November - January 2013](#)
[Wave 2 : August - October 2012](#)
[Wave 1 : May - July 2012](#)

OMeBa analysis window

CREATE (OMeBa) Help and documentation

Select Dataset: Wave Current population is: 5495 Clear Filters Update this

Search: **rank 1)**

Available Questions (

qb4_3c --> Q.B4_3C NU
qb5_2b --> Generally, how
qb5_2b --> Q.B5_2B Fre
qb5_7 --> You indicated th
months. How many of the
no way be connected bac
qb5_7_1 --> Q.B5_7_T N
qb --> Do you have any of
qbx_3d --> Q.Bx_3D (C
11)
q4 --> To what extent do y
books, computer software
q4f --> Q.4F Agreement
q5 --> You indicated you h
q503 --> It's cheaper (Ra
q504 --> I can get them f
q506 --> It's more up-to-
q6 --> What are the reason
q601 --> I-m not interest
q619 --> Someone else
q7 --> You indicated you h
q702 --> It's quicker (Ra
q705 --> I think it-s mora
q712 --> I-m unaware of
q713 --> I don-t know ho
q8 --> You indicated you h
q814 --> Don't have a TV
q9 --> You indicated you h
q904 --> I don-t know ho
q10a --> You indicated you
done so illegally [INSERT
q10a02 --> It's quick (Ra
q10a10 --> I can-t afford
q10a19 --> It gives me s
q10b --> And which, if any
MANY OR AS FEW ANSW
connected back to you
q10b14 --> If everything
q10b19 --> If I got a virus
q11a --> How confident are

This panel shows a plot with the different fields/questions that have been selected in the previous panel.

Selected fields Field Evolution Field Comparison

Field Values Average Values

Evolution over time for field: qbx_3d

◆ Weighted Average Values For Each Wave

0 -- Not Answered	1 -- 1 to 10
2 -- 11 to 20	3 -- 21 to 30
4 -- 31 to 40	5 -- 41 to 50
6 -- 51 to 100	7 -- 101 to 200
8 -- 201 to 500	9 -- 501 to 1000
10 -- 1001+	

This panels allows you to apply filters on the selected questions

21 to 30:0.24%[13] reset,
1001+0.05%[3] reset,
31 to 40:0.09%[5] reset,
201 to 500:0.05%[3] reset,
501 to 1000:0.02%[1] reset,
101 to 200:0.07%[4] reset,

qb1_3c1 --> [qb1_3c1 --> Q.B1_3C1 Number - Music tracks owned in digital format (amongst sharers) (Rank 427)] reset

Not Answered:95.05%[5223] reset,
201 to 500:0.45%[25] reset,
1 to 10:1.71%[94] reset,
101 to 200:0.27%[15] reset,
1001+0.64%[35] reset,
51 to 100:0.49%[27] reset,
501 to 1000:0.45%[25] reset,
21 to 30:0.16%[9] reset,
41 to 50:0.22%[12] reset,
11 to 20:0.18%[10] reset,
31 to 40:0.16%[9] reset,

qbx_3d --> [qbx_3d --> Q.Bx_3D (Combined files of interest) Number - content types of interest bought in physical format in the last 3 months (Rank 11)] reset

1 to 10:39.47%[2169] reset,
101 to 200:0.95%[52] reset,
Not Answered:37.38%[2054] reset,
11 to 20:9.24%[508] reset,
51 to 100:3.29%[181] reset,
21 to 30:4.49%[247] reset,
1001+0.05%[3] reset,
41 to 50:1.69%[93] reset,
31 to 40:2.78%[153] reset,
201 to 500:0.36%[20] reset,
501 to 1000:0.07%[4] reset,

Lessons from the OMeBa project

- Considerable potential added value of temporal analysis
- Needs a rigorous social science led approach
- OMeBa tool is NOT a statistical analysis or visualisation tool
- OMeBa facilitates research by allowing combination of any questions/variables, selection and CSV download

Main achievement has been to harmonise and consolidate publicly funded survey data over a five year period, evidencing change in how we consume culture

What are the policy implications?



<https://www.create.ac.uk/omeba-resource-page/>

<http://copyrightcentral.arts.gla.ac.uk/omeba/>

<https://pec.ac.uk/>



OMeBa (Online Media Behaviour Analytics) is a project developed by CREATE in collaboration with the AHRC Creative Industries Policy & Evidence Centre (PEC) and the UK Intellectual Property Office. The project consolidates a large dataset on online consumer behaviour in order to explore the challenges of increasing the value of survey based studies. A pilot data tool demonstrates how industry and policy users could derive value from interrogating the survey data directly. It is possible to analyse how online consumer behaviour has evolved year by year since 2013.

The underlying dataset is the result of repeated surveys on copyright infringement, online access and consumption behaviour in the UK, commissioned by Ofcom and the Intellectual Property Office and delivered by Kantar Media (until 2018) and AudienceNet (2019-) as part of a continuing tracking study. The first eight waves surveyed 4,000+ individuals, representative of the UK population (age 12 and above), using a hybrid online and face-to-face survey methodology (520+ different questions with 6,000+ data points). The online copyright infringement (OCI) tracker survey explores online behaviour in relation to six main types of online content: music, film, TV programmes, books, video games and computer software. The surveys were originally developed as a response to the obligation on Ofcom in the Digital Economy Act 2010 to monitor copyright infringement.



The OCI Tracker Survey

You can access the original reports by Ofcom and the IPO and download the published data from each of the waves at these links:

- Wave 8: March – May 2018
- Wave 7: March – May 2017
- Wave 6: March – May 2016
- Wave 5: March – May 2015
- Wave 4: March – May 2013
- Wave 3: Nov – Jan 2013
- Wave 2: Aug – Oct 2012
- Wave 1: May – July 2012

The findings on levels of copyright infringement are largely reconstructed from data on online consumer behaviour in general. Therefore, the surveys offer interesting behavioural insights into online consumption of creative content and cultural participation more generally.

The main challenge encountered in importing the OCI data into the OMeBa tool was posed by the changes made to the questions and variables across the various waves of the survey, with new questions and variables being added, amended or removed in certain waves, and the corresponding question identifiers (QIDs) changing inconsistently. However, core questions relating to demographics, access to and use of services, reported behaviour, and attitudes and perceptions have remained largely the same from wave 4 to wave 8, allowing longitudinal analyses in those areas. The following table summarises the areas of longitudinal investigation allowed by the OCI data.

Areas of longitudinal investigation (2013-2018)

Demographics	Access to and use of services
Gender	Internet Access
Age	Frequency of Internet Use
Social class (ABC1, C2DE)	TV Services
Marital status	Sites or services used to download / stream or access / share (from 2015)
Working status	Subscriptions (from 2016)
Presence of children (age, gender)	
Number of adults in household	
VPN use (from 2015)	
Reported behaviour	Attitudes and perceptions
Music - Games - Computer Software - Films - TV Programmes (including Sport programmes from 2018) - Books	Awareness of online services
Spend	Statements / Opinions
Frequency of downloading / streaming / sharing	Personal reasons / Motivations
Total number of works downloaded / streamed / shared	Confidence about what is and is not legal online
Paid v Free	What would make infringers stop infringing
	Willingness to pay (removed in wave 8)

A more detailed overview of the questions and variables that are present from wave 4 to wave 8 of the survey can be found in the slide deck 'The OMeBa tool: Longitudinal analyses allowed by the OCI data' below.

Workshop: Investigating online cultural consumption using the Intellectual Property Office's OCI Tracker

As part of the work programme of the AHRC Creative Industries Policy & Evidence Centre (PEC), on June 28th 2019, Nesta and CREATE convened a workshop *Investigating online cultural consumption using the Intellectual Property Office's OCI Tracker*. The workshop brought together researchers from government (including the IPO, DCMS and Ofcom), industry, and academia to explore what further research insights may be gleaned from the OCI datasets. The workshop started with a series of short presentations, which can be downloaded at the following links:

- [Introduction to the PEC](#) – Hasan Bakshi, PEC, Nesta
- [Online Copyright Infringement \(OCI\) Tracker: Building an evidence base for copyright policy](#) – David Humphries and James Clarke, Intellectual Property Office
- [Wave 0 of the OCI tracker survey](#) – Sania Haq, AudienceNet
- [New sources of online behavioural data](#) – Prof. Martin Kretschmer, PEC, CREATE, University of Glasgow
- [The OMeBa tool: Longitudinal analyses allowed by the OCI data](#) – Bartolomeo Meletti, PEC, CREATE, University of Glasgow
- [The OCI data sets: illustrative areas of investigation](#) – Raphael Leung and John Davies, PEC, Nesta

A paper with visualisations from the OMeBa project will be published in December 2019.

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Following these presentations, participants broke into three groups to reflect on what public bodies that own data similar to the OCI tracker can do to make it more useful for researchers, and to identify research questions that may be investigated using the OCI data. Notes from the breakout sessions can be downloaded [here](#).



Visualisations of OCI data by Raphael Leung (Nesta)