

comScore/UKOM Summary of Methodology

April 2018

Relationship between UKOM and cS

comScore and UKOM are separate entities with contractual relationship

UKOM = Governance Body

UKOM, via its Executive, Technical and Commercial Boards, monitors and governs the quality and methodologies of the comScore approach providing reassurance to the industry that standards are being met in the UKOM endorsed products

comScore = Digital Audience Data Possessor

comScore develops methodologies, processes data, supplies the market with audience data and provides subscribers with an interface



comScore/UKOM Digital Audience Measurement

Who is this presentation for and how can they use comScore/UKOM data?

- Buy and sell side: people that use comScore tools to create reports, but don't have any in-depth knowledge around the methodology
- Delivers common UK industry standard for online audience reporting and planning
- Allows competitive comparisons, campaign planning, audience trend analyses, reach/frequency analyses and much more

What data do we provide?

 Comprehensive data about digital audiences across websites, mobile apps and content categories

Where can you access it?

Via the comScore user interface

How do we do it?

 Integrating census (tag) with panel (person-centric) measurements



What does comScore/UKOM Report on?

comScore/UKOM data reports on:

- Online audiences across devices
- ✓ "The consumers of content"



What does comScore/UKOM Measure?

The UK population connecting to the Internet at least once a month from one of the following devices:

Computer/Laptop

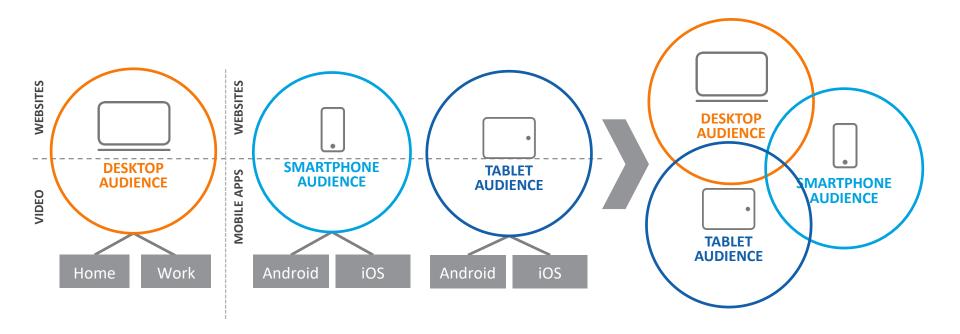
- Home* computer audience: users aged 6+ years
- Work* computer audience: users aged 18+ years

Smartphone/Tablet

- Any location
- Android or iOS
- Main users of a phone or tablet device (single user per device)
- Aged 13+ audience for tagged entities;
 18+ for both tagged and non-tagged entities



comScore/UKOM Data Reports on De-Duplicated Audiences Across Platforms using a modelling technique





comScore Unified Digital Measurement Methodology: the Integration of Tag and Panel Data

PERSON MEASUREMENT

PASSIVE PERSON-CENTRIC



PANEL

Panel (person) data provides cookie per person information (PC), demographic data, and projections for websites and apps without a tag

CENSUS PAGES TAGS, SDKS

DEVICE MEASUREMENT

Census (tag) data provides accurate volumes of the traffic for tagged sites (incl. content distribution channels)



Focus on Census Measurement

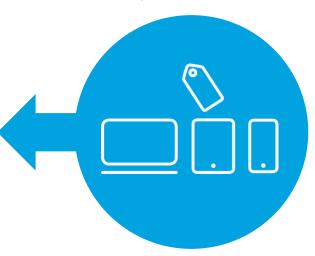
PERSON MEASUREMENT

PASSIVE PERSON-CENTRIC



DEVICE MEASUREMENT

SITE/CONTENT-CENTRIC



PANEL

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CENSUS PAGES TAGS, SDKS

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Census Data: Site/App-Centric Measurement Collected via Tags



- A tag is a short code that is placed on a website or other web based content asset and is used to track an 'event' (e.g. page view, mobile app call, etc.)
- Census data reports on complete traffic for tagged content visited from all devices
- Some media provide census-like feeds delivering the same level of information as census (e.g. YouTube, 3rd party content distribution platforms)

Tagging brings benefits for accuracy:

- Introduces increased granularity and stability for smaller media entities
- Assures that all activity is credited
- Delivers audience data for platforms where a panel is not maintained (Android Tablets)
- Covers all platforms and provides a picture about device shares



Census Data: Device Platforms Reported in Multi-Platform Audience



What devices are captured in comScore/UKOM multi-platform audience data?

Device platform	Captured by Census Data	Included in Multi-Platform Audience Data
PC	✓	✓
Mac	✓	✓
Android Phone	✓	✓
iPhone	✓	✓
iPad	✓	✓
Android Tablet	✓	✓
Other mobile OS & devices	✓	×
OTT & other devices	✓	×



Focus on Panel Measurement

PERSON MEASUREMENT

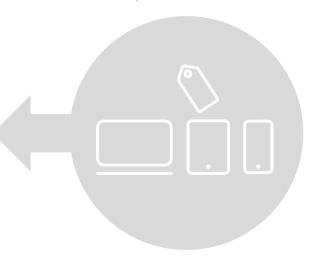
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UNIFIED DIGITAL MEASUREMENT METHODOLOGY

DEVICE MEASUREMENT

SITE/CONTENT-CENTRIC



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comScore Panels in the UK



- The panel is a subset of UK internet users that installed comScore meters on their devices which track their online behaviour
- It is nationally representative and weighted to the universe estimates based on the PAMCo survey
- Sample sizes per device (Q1/2018):
 - Desktop/laptop ~ 75k persons, age 6+ years
 - Total Mobile (all together) ~ 11.5k persons
 - Android phone ~ 5.2k persons, age 18+ years
 - iPhone ~ 4.6k persons, age 18+ years
 - iPad ~ 1.7k persons, age 18+ years

Panel details:

Desktop and laptop

Windows computers are empanelled but Macs are not covered (they are covered by census and universe estimates)

Mobile devices

an assumption of one user per device is applied (the main user concept)

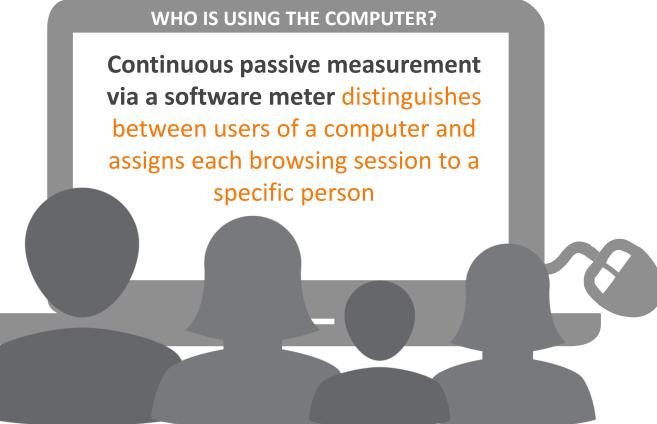
Sample is weighted to be fully balanced

- Demographic weighting targets provided by the enumeration study (PAMCo)
- Behavioural weighting targets (Internet intensity*) for desktop are inferred from total country census (tag) data



Desktop Panel: Passive Measurement of Online Activity

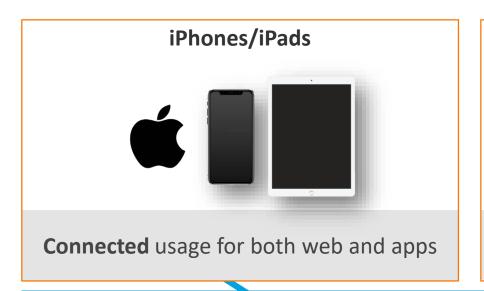






Mobile Panel: Measurement of Websites (URLs) and Apps







METERS RETRIEVE TRAFFIC IN REAL TIME



- Due to iOS and Android operating system constraints there are minor differences in panel measurement between iOS and Android
- Android Tablet panel isn't maintained in the UK and thus Android Tablet audiences are reported only for tagged sites and apps



Quality Assurance Processes

Invalid Traffic Filtration: Both General and Sophisticated IVT is filtered out

- Bots
- Adware & Browser Hijacks
- Ad Injectors
- Domain Laundering
- Data Centre Traffic

URLs not requested by users are filtered out (e.g. pop-ups, pop-unders, redirects, ad banners)

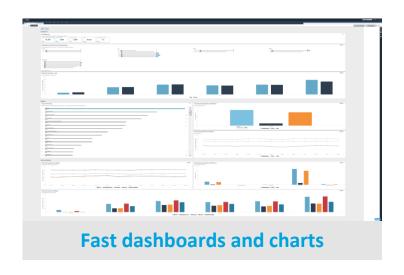
Data integrity controls applied to both census and panel data:

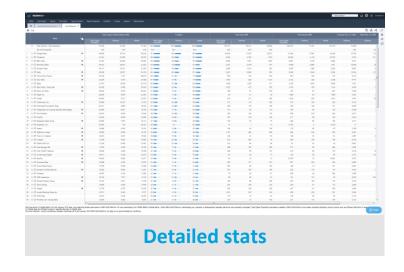
Data collection hourly monitoring, daily processing checks, data variance controls, monthly data quallity assurance processes



How do I get access to comScore/UKOM Digital Audience Data?

comScore MyMetrix Interface – online system for data analyses





Third party bureaux



Audiences Reported in Specific comScore Products

MMX

Audience visiting websites from desktop computers

Video Metrix Desktop (VMX)

Audience consuming video from desktop computers

Mobile Metrix (MoMX)

Audience interacting with mobile applications and visiting websites from Android or iOS smartphones or tablets

MMX Multi-Platform

De-duplicated audience of MMX, VMX Desktop and MoMX

Video Metrix Multi-Platform

(VMX MP) De-duplicated audience consuming video from desktop computers or mobile devices



APPENDIX



Universe under measurement reported in comScore/UKOM data

UK online users connecting to internet at least once a month

Platform	Persons 6-12	Persons 13-17	Persons 18+
Desktop (Home & Work)	Included	Included	Included
Mobile (All locations)	Not included	Included (tagged content only)	Included (Android and iOS)
Multi-Platform (Desktop & Mobile)	Desktop only	Desktop + Tagged mobile content	All platforms (tagged + non-tagged)

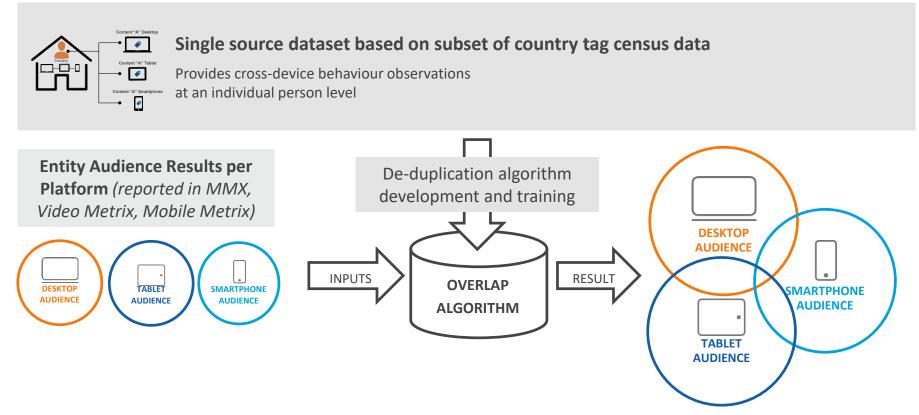


Enumeration source: PAMCo study

- PAMCo (http://pamco.co.uk/) is the resource of internet penetration data for Great Britain
 - Based on a random sample of 35,000 persons per annum in GB
 - Includes comScore questions to gather household, respondent and internet information on variables needed for universe estimates (weighting targets)
 - Provides comScore with internet penetration estimates on quarterly basis
- ICM Omnibus data is used as the establishment survey for Northern Ireland



Digital Audience De-Duplication: Overlap Algorithm Informed by Single Source Data

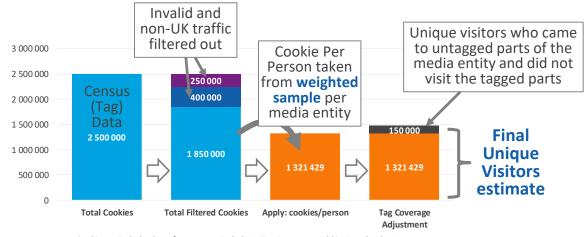




Integration of Census (Tag) and Panel Data: Unified Digital Measurement

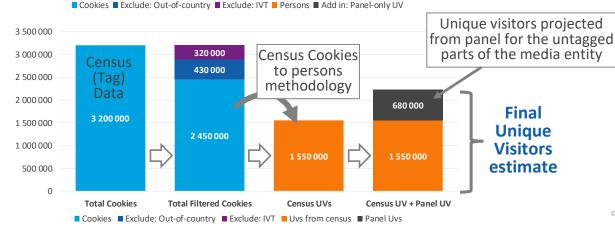
Methodology

Desktop Unique **Visitors**



Mobile Unique **Visitors**

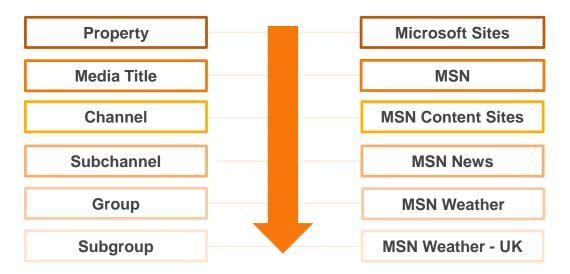
(calculated per device and OS platform separately)





Publisher Audience in Data: the Dictionary

- Dictionary defines how publishers' audiences are reported in the data
- Combines granular URL/mobile app data into meaningful hierarchies and categories
 - Example of a breakdown of up to 6 syndicated hierarchy levels:







comscore.com







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Thank you!