bmcoforum **Guidelines**

"Measurement
of mobile media content consumption"

The objectives of measuring[1] the usage of audio-visual content on mobile devices may be manifold. Among others measured usage data may serve

- The broadcasters, service providers and mobile operators to increase and diversify audience-based advertising revenues

- The content providers, service providers and (mobile) operators as a basis for the enrichment of their assets

- The advertisement industry to get proven insights into target audiences and relevance

- The content providers for format tuning

- The mobile operators to enhance the service provided by them to their customers e.g. by network and device refinements

- The mobile operators and service providers for customer care purposes, e.g. helping in case of usage handling issues

While recognising that for compatibility reasons of reporting and transparency for the users, the measurement of the usage of audio-visual content on mobile devices should be done in a way so that it can serve all objectives mentioned above in a uniform way, ***these guideline focus on measurement activities that support the establishment of advertising based business models***.

In advertising-based business models, audience measurement reports are the basis for the CPM-based pricing.[2] So, the usage data are the "currency" of the revenues of content, service or network providers to be received from the advertisers.

While in the stationary TV environment in many markets neutral trustable audience measurement agencies have been established, in the new economy service providers and telecom operators often generate own usage data to constitute a direct claim for advertising revenues[3].

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[1]	Mobile operators normally use the term „usage monitoring", while audience research agencies normally speak about „audience measurement". As we feel that "monitoring", on the one hand, and "audience", on the other hand, do not fit the view of all players, we will further use the term "usage measurement".
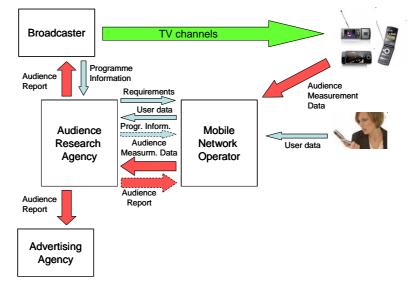
[2]	Cost per mille (CPM): costs to show the ad to one thousand viewers

[3]	Google may serve as an example here.

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So having that other models exist[4], ***these guidelines focus on the extension of the well-established usage measurement model of the stationary TV environment to mobile media content consumption***.

The guidelines also assume a cooperative measurement business model approach dedicating specific roles to the research agencies and the mobile operators as shown in the following figure:

Depending on the services/applications the measurement of the usage of audio-visual content on mobile devices can be done by different platforms: by on-device meters, by server logs or by tagging (SiteCensus).

These guidelines focus on measuring the usage of audio-visual content on mobile devices where the monitoring/measurement is done by an on-device meter at the mobile device.[5]

Hereby we assume that on-device metering shall be used in cases where other methods are not applicable. Examples are broadcasting services and network or device specific monitoring.

These guidelines shall encourage cooperation of all players in the value chain as well as provide recommendations for the technical and standardisation aspects of metering and gathering.

1. ***Any usage measurement on mobile devices should be performed in such a way that the resulting usage data are compatible to the usage data of other audio-visual services provided by any delivery channel.***

Consumption on mobile devices of audio-visual content received by a broadcast delivery channel normally is only one way to consume a specific content. The same content can be broadcast to stationary devices as a TV or PC as well as delivered by the internet to a PC, Laptop or mobile device.

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[4] **bmco**forum plans to approach those other models in follow-up work phases.
[5] However, most of the business-oriented guidelines hereafter may be also valid for data measured server logs and tagging.

Broadcasters, content providers and advertisers are interested in receiving harmonised usage data on a specific content, delivered by different channels and services. This will ease the reporting on channel usage or a marketing campaign.

2.   The well established audience measurement rules for stationary TV may serve as the basis for mobile TV usage measurement.

The rules recognized for TV audience measurement include quality control and scientific standards like objectivity, representativeness, reliability and validity.

Objectivity means that data collection and data transformation has to be done under supervision and independent from all partners.

Representativeness means that all types of devices or operating systems have to be under observation, no exclusion of specific techniques, specific contents or specific groups of users.

Reliability means that the same event, the same act of content used at different times, on operating systems and devices has to produce similar measurement data that shall not be forged.

Validity means that the system measures what it promises: To measure the use of some content on a mobile device by an identified user.

The measurement method inside the mobile devices must be transparent. Audience agencies may do their own verifications to trust the measurement client in the mobile devices.

3.   Mobile operators seem to be the most obvious players to perform the usage measurement process on mobile devices.

Mobile operators know the customers, own the mobile network, handle (in most cases) the customer devices and perform their own measurements for service enhancement and customer care purposes.

Mobile operators are engaged and search for new ways to use their data to enhance media consumption, understand consumer behaviour and maximise advertising potential.

Based on their customer data, mobile operators are capable to set up socio-demographic panels or may analyse usage data of their whole customer base under customer segmentation aspects, also in combination with other than broadcast services as voice, SMS or internet access. Mobile operators have a contract relationship with the end-user that can be the framework of trusted opt-in acquisition policy.

Mobile operators have their own interests in the output of the usage measurement, as they may have business relations to broadcasters, content providers or advertisers based on the usage figures. So, they are not an independent partner.

For that reason, the research agencies may be interested in a *specific supervision* for the production process of trustable usage data. To guarantee the validity of the measure to different stakeholders, this may include an audit

of the meter and verification of the meter or of each block of data sent by the meter could be necessary.

4. *Research agencies seem to be the most obvious players to perform the data transformation and reporting process.*

Measurement agencies are well recognised by the broadcasters and marketers as neutral and trustable research instances. Today they provide the audience research results from stationary TV and IPTV usage which is the basis for commercial advertising-based TV services.

They are experienced in organising panels, gathering high amounts of measured data from measurement devices as set-top boxes or special metering devices, transforming and processing them and providing (customised) reports to the different parties as broadcasters, content providers, marketers and advertisers. They can also serve the mobile operators with corresponding reports.

5. *Broadcasters, content providers, marketers and advertisers are interested in getting harmonised data over all mobile devices of all mobile operators. Research agencies can merge them.*

Broadcasters, content providers, marketers and advertisers usually provide their content on a non-exclusive basis to the mobile users of all mobile operators. For business reasons they may be interested in its usage over a specific mobile operator, but from the overall usage point of view they demand combined figures including socio-demographic background.

Research agencies today combine usage data from different sources, e.g. stationary TV and 3G streaming TV. So, they may be a partner for the mobile operators in this case as well.

6. *A commission that represents the clients of the generated usage reports shall be included in the usage measurement process from the very beginning.*

Broadcasters, content providers, marketers and advertisers as well as mobile operators are interested in receiving usage measurement reports that fulfil their specific requirements and needs. They are interested in controlling the whole panel set-up and measurement process. A corresponding research commission capable to set the measurement framework may enable this best.

7. *Cooperation between all players of the usage measurement value chain allowing a win-win situation for all of them is the best way to implement usage measurement of audio-visual content on mobile devices.*

Broadcasters, content providers, marketers and advertisers may win from such cooperation by getting trusted figures from the research agencies harmonised over all delivery channels including the mobile usage.

Research agencies may win from such cooperation by generating new revenues from their recent customers by including mobile usage data in the reporting.

They may also win new customers including the mobile operators for the specific mobile usage reporting.

Mobile operators may win from such cooperation by generating new revenues from the provision of usage data to research agencies. They may use reports from the neutral research agencies to generate direct advertising revenues from their services.

8. Research agencies and mobile operators should look for ways to create a single panel for the usage measurement over different delivery channels.

While research agencies work with representative panels in many cases today, in principle, all mobile users may be easily included in the measurement.

Nevertheless, a well-defined panel has some advantages, as it may avoid systematic errors of a total survey. Furthermore, a panel may base on the specific socio-demographic data collected by the panel participants which may be more suitable for audience research.

A research agency could set up the panel without the mobile operators which might be easily aligned with the current stationary TV panels.

However, this may lead to parallel measurements done by the research agencies and the mobile operators. This will then also lead to different measurement clients.

Furthermore, implementing and maintaining on-device meters in a large amount of diverse mobile devices may be a challenge for research agencies.

Usage measurement should allow exhaustive as well as panel-based measurement.

9. For detailed segment-research oriented reporting, the research agencies need to combine the usage data with socio-demographic data. User privacy protection rules may avoid sharing such social-demographic data among the partners.

Three level profiles can be considered to handle privacy issue: End-user behaviour without end-user profile, with anonymous profile and with non-anonymous profile.

For privacy reason and to secure their customer ownership, mobile operators will share with the research agencies user specific data only in an anonymous way.[6] Some socio-demographic data as gender and age may be exchanged. Other data as usage location may be under question.

However, research agencies may be not allowed to share the identity of their panellists with the mobile operators, as this may jeopardise the neutrality of the results.

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[6] The details may depend on national laws and rules.

To set up a single panel, the cooperation partners have to carefully analyse the national regulations with respect to which socio-demographic data can be exchanged. Maybe limited combined reporting may be possible here.

Adequate mechanisms should be implemented in the usage measurement client in order to enforce compliance of the measurement operations with user-accepted privacy policies, including expression of opt-in and opt-out choice by the user.

10. ***Other than in classic TV audience measurement, usage measurement of audio-visual content consumption on mobile devices provides a great flexibility to invite the customer base or part of it for a campaign or a continuous measurement.***

This can be used to create new reporting services generating additional revenues.

This leads to an *aligned basic data model* for all measurements which may be *extended by specific data for special purposes,* as special business models or mobile operators need.

11. ***The value chain of usage measurement of audio-visual content consumption on mobile devices supporting the establishment of advertising based business models will only work, if enough additional revenues can be generated to cover the additional measurement costs.***

Usage measurement of mobile content consumption on mobile devices causes additional expenses which should be covered by additional revenues created by the additional value of the reports with included mobile content consumption usage figures.

The additional expenses come from the integration of the measurement clients into the mobile devices and the data gathering from them.

The additional revenues will come, first, from selling reports with added value out of the mobile consumption usage figures to the broadcasters, content creators and marketers. Second, mobile operators and mobile content and service providers can be acquired as new report customers.

Consequently, in case that research agencies perform the data transformation and reporting process and sell the report, they have to cover the additional costs.

In case it comes to small additional values, the right proportion between the best methodology and its efficiency has to be found.

12. ***For valid usage figures, panellists shall use the mobile device of their personal preference, but not a specific device for measurement only.***

As the measurement should be done under real conditions, measurement clients should be integrated in the devices the users have chosen for their personal usage without any measurement considerations. Any enforced usage of a specific measurement mobile device not used for any other mobile service will fake the results.

13. Standardisation of usage measurement in mobile devices is needed and has to be agreed among all partners of the measurement value chain.

A basic common set of formats and measured data is needed to be standardized, at the same time leaving room for later extensions based on specific business needs. Furthermore, the exchange of the gathered usage data between the mobile device and the platform of the research agency has to be standardized. Management procedures may be needed to be standardized as well, e.g. for dynamic panel set up.

The standards shall be agreed among vendors, mobile operators, research agencies and marketers to fulfil all the specific requirements of the parties. A well-established way to approve the standard is essential for that.

14. As mobile devices are produced for global markets, for device manufacturers it is important to have only a single usage measurement system to be embedded in the devices, but not many by default.

There is no need to standardize the client itself but the output of it.

There are several options for setting up the usage measurement clients: The device manufacturers can integrate a silent client which can be enabled for usage measurement when the user agrees. In smart phones usage measurement can also be part of the application.

15. Measurement of mobile media consumption is another example of convergence of different industries. Several issues still have to be solved. bmco*forum* will be active in the following areas:

- Facilitate the discussion among mobile operators and research agencies on the set up of a panel, that is harmonised with the stationary TV measurement panel; and the corresponding exchange of socio-demographic data.

- Bring the research agencies, the mobile operators and the vendors together to decide the basic functionality really to be implemented by the vendors. And by the end, this functionality has to satisfy the research agencies.

- Facilitate the discussion on which of the measurement options shall be implemented as fast as possible, maybe profiling them and focusing on the necessary features.

- Look at the monitoring needs that are not part of the OMA measurement proposal, e.g. field strength.

- Develop indications for the volume of measurement clients needed in the future.