

# How to measure the total brand footprint?

Geir Engen, Norwegian Media Businesses' Association (MBL)  
Knut-Arne Futsæter, TNS Gallup

## 1 INTRODUCTION

As pointed out in the call for the PDRF synopses, all players in the media ecosystem are being transformed in unpredictable ways. The media industry has never seen so many and fast moving changes that we see today, – for media investment, business models, revenues and content planning – as well as for research. The stakeholders in Norway and in the rest of the world struggle to reach an agreement on what they really need, and the way we organize and fund audience measurements is threatened as never before.

Since we started to measure websites as early as in 1995 and mobile content from 2005, we have gained a lot of experience and findings to be shared. The Norwegian media market is somewhat unique with our strong newspaper industry that rapidly took part in the process of digitalizing media content. The rapid development of content on several different platforms and consumption on different devices raise huge challenges for the research industry.

We have successfully reported the total media brand footprint of the media houses since 1996 by the multi-media survey Consumer & Media (C&M), using the recall method. However, it is a growing challenge to use recall as a method for measuring all types of content on all platforms in 2015; for instance, respondents don't recall whether they have read a particular newspaper on a tablet, on a mobile phone or as an e-paper. In our opinion we have to combine recall data with data from passive electronic measurements and use various data integration techniques to report media usage by platform and total brand footprints into multi-media surveys such as C&M.

In Nice 2013 (Engen & Futsæter, 2013) we focused on the complexity of measuring newspaper content across several platforms and how we have met the challenges of measuring mobiles and tablets. *This paper will focus on the new challenges of measuring and modelling use of content from newspapers and magazines in native Apps and use of content that is embedded in sites such as Facebook. We will discuss how we can calibrate digital content from the published media – newspapers and magazines across all platforms into the C&M, reported in the Galileo software (Gallup PC).*

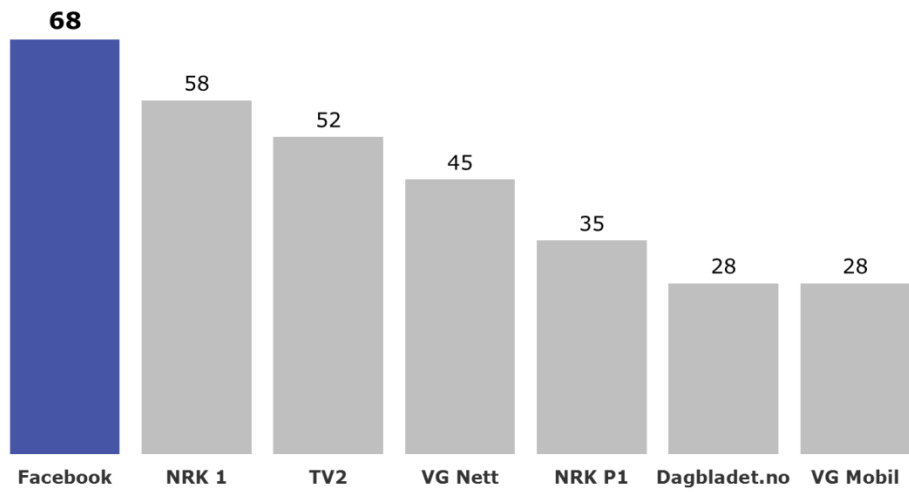
We will start with a short introduction of the Norwegian media landscape and the Norwegian discussion of planning, selling and analysing digital content. What is the trading currency, are we measuring the right things and are we measuring them as correct as possible?

### 1.1 THE NORWEGIAN MEDIA LANDSCAPE

Media consumption in Norway is very high, especially for newspapers. Over the past few years however, Norway has had the same experience as other markets with dramatically falling print circulations and a decline in print advertising. Consequently, the market share for newspapers and magazines has dropped from 31% in 2013 to 23% in 2015 (IRM, 2015). If we take into account the estimates of ad spending on Facebook and Google, the print market share is only 18% (iProspect Estimates, 2015). The structural shift of media investment that the Norwegian market is experiencing expected to continue. With a yearly growth of 13% digital ad spending is growing faster than expected in Norway and digital ad income is expected to pass 50% in 2019. Most of the growth in digital income would continue to be taken from the publisher (PWR, 2015).

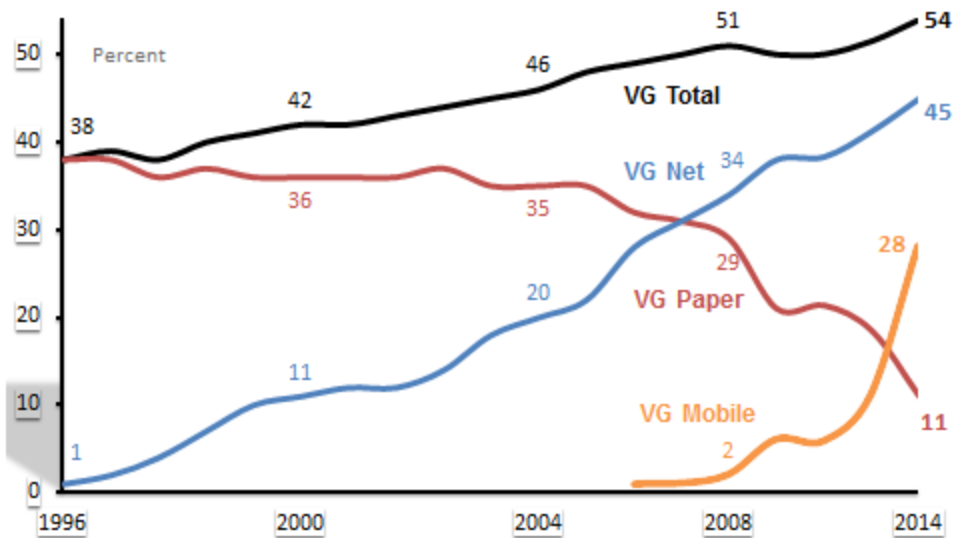
With daily use of the Internet at 87% and mobile content at 56%, Norway is a highly developed media market. In 2Q 2015, 95% of the population had access to the Internet, 84% have smart phones and 63% have tablets. Figure 1 illustrates that Facebook is the largest medium in Norway and that the web edition of VG is the fourth largest. Facebook drives users to Norwegian web sites (see chapter 6).

Figure 1. Daily reach for the largest medium in Norway. Percent.



Norwegians still read newspapers and 54% read at least one newspaper daily. However, readership of some national newspapers is declining rapidly and more and more content is consumed on digital platforms. Their paper edition readership was surpassed by their website in 2006 (see figure 2). VG Mobile reached 28% of the Norwegian population daily in 2014, while VG Paper only reached 11% compared to 35% in 2004. During 2015 VG Mobile reach will be three times higher than the print edition.

Figure 2. Daily reach for VG. Percent.



## 2 THE NEWSPAPER INDUSTRY NEEDS FOR DIGITAL DATA

The Norwegian newspapers are diversified. We have a great number of small local newspapers, some regional newspapers and a handful of national newspapers. Almost all of these newspapers have a website with updated news content and a mobile website. In addition, several newspapers have developed paid digital versions often named ‘E-papers’. For the time being most of E-papers are PDF copies of the paper edition. Furthermore, some newspapers have launched specific digital editions, often named ‘plus’ or ‘extra’ products. As there has been a strong trend in developing paid digital content in the last years, the publishers also want to measure the paid content separately (see figure 3).

As the interface, content and ads could be different from platform to platform, the publishers also want to have figures for different platforms and products.

*Figure 3. The media houses and the market want readership figures for different products*

	Paid editions	Free editions
<b>Desktop</b>	<b>X</b>	<b>X</b>
<b>Mobile</b>	<b>X</b>	<b>X</b>
<b>Tablet</b>	<b>X</b>	<b>X</b>
<b>E-paper/PDF</b>	<b>X</b>	
<b>Extra-versions</b>	<b>X</b>	

The challenge is that the media houses continuously create new editorial solutions on different platforms, and that they want readership figures for each edition and for total brand reach. With all the different newspaper versions the respondents have a hard time recalling details of their digital media usage.

The hunger for more data is driven by different needs. They could be strategically, editorial, commercial, input to other systems (internally or externally) ‘nice to know’ etc., or as a combination of these ‘needs’. Additionally, the stakeholders are actually very unsure what they want of data and analyses today, and not at least in the future. On top of that we have the economic crises in the media houses. From 2013 we have moved from financial decline to economic crises for the newspaper industry, although their digital income has increased. Back in 2006 the newspapers had a strong position and a market share of 38% of the ad market. However, the newspaper ad incomes have declined and their market share has gone from 38% in 2006 to 26% in 2013 to 20% in 2015 (IRM, 2015). If we take into account the estimates of ad spending on Facebook and Google, the newspapers market share is only 16% (iProspect Estimates, 2015). The forecast for the next years looks even worse (LAC, 2015).

### 3 PLANNING, SELLING AND ANALYSING DIGITAL CONTENT

MBL (the Norwegian Media Association) and TNS Gallup have during the last years undertaken a lot of work trying to develop new tools for measuring media consumption on a variety of platforms. Our aim has been to develop tools that measure and reflect the products that are in the market. We need to look into some critical questions:

- What are the digital services in the market?
- Which tools and KPIs (Key Performance Indicators) are important for selling and analyses?
- How are digital ads being sold now, and how will they be sold in the future? How will the combination of print and digital be?
- What are the future needs of media and media agencies?
- Do we need different tools to solve different needs?

The questions above concern media, agencies and advertisers. If we take a closer look at just the media houses, there are some challenges that need to be addressed:

- Today we have different digital measurements and tools giving us different figures. We would like to have only *one* set of figures that will be the official digital figures in Norway.
- We have to provide the tools for measuring total digital coverage, combined coverage of print and digital and the coverage of the different digital products/platforms.
- Nevertheless, we have to give the media houses the tools for planning and evaluating campaigns.

#### **One currency?**

When it comes to selling digital advertising, we have to have a look at the currency. After having worked in this area for a while, our conclusion is that there is not one common currency being used among the media houses that we represent. Small local media houses and the bigger national media houses are selling their digital inventory differently. There are many reasons for this, but it gives us some challenges when trying to develop the necessary tools. And, this is important; the competition that national and local media houses face on a daily basis makes them have different views of what are the best options for future development.

For the national players the currency is page impressions, and for most of the local newspapers the currency is readers (daily reach). But this is only half the truth. When the large national newspapers are talking to agencies and advertisers, the price of a campaign is set by the number of page impressions that is delivered, but they use reach-figures from the C&M in the preliminary strategic discussion. And when a local newspaper have a set price on a campaign based on how many readers you reach, the price is calculated on the number of page impressions you typically get in the same period.

To make sure that we develop the tools in a way that gives media, agencies and advertisers what they need, we have conducted interviews with different stakeholders. MBL conducted in depth interviews with two agencies directly. On our behalf Robert Ruud Analysetjenester has talked to two more agencies. These agencies use a variety of sources, but the multi-media survey, C&M, seems to be the most important tool for identifying reach in different target groups. C&M is used on a strategic level by both agencies, but they also claim that there is a problem with C&M – figures for digital are ‘not good enough’. There are mainly two different reasons for this: Firstly, not all of the digital products available on the market are measured and reported in C&M. Secondly, the figures in C&M for digital products are not the official figures for digital media consumption in Norway.

As we see it, we have two primary tasks that have to be dealt with in the coming period:

1. First of all, we have to develop our digital tools to be measuring all relevant digital products
2. Secondly, we have to make sure that the respondents of C&M give answers to the actual questions they are being asked. If they do so, then the figures represented in C&M will be close to the official figures for all relevant products and the chances of C&M being the primary source for the agencies in their strategic planning will increase.

The area where there is most attention at the moment is Real-Time Bidding (RTB), programmatic and the introduction of exchanges. All the media groups are working on their strategies regarding these issues. Some have teamed up with Google, while others are arguing for all media to join forces to compete with Facebook and Google. The introduction of RTB solutions, exchanges, targeting and programmatic changes the way the media commercializes on its ad selling capabilities. Planning and reporting on traditional reach and page view KPIs are under pressure from other KPIs such as effect, in-view and digital target groups. In the future we expect to see a differentiation between reporting reach and consumption on websites and content, and reporting on ad and campaign effectiveness. The combination of the two measurements will allow media houses to both ensure reporting KPIs for their products as well as the advertiser’s needs for reporting on their ad effectiveness and reach, but this is not to be discussed further in this paper.

## 4 THE NORWEGIAN INTERNET MEASUREMENT SERVICE 2014 – 2016

The Norwegian Internet Measurement Service is designed to measure Internet use in Norway for the participating websites. MBL represents websites ranging from local newspaper sites to the largest media sites, and they have a long history going back to 1996 as clients of the TNS Kantar Internet Measurement Service in different forms using different technologies.

At the start of the tender process for the period 2014-2016, the clients had a clear view of what the Internet Measurement Service should comprise. The service should:

- Measure all forms of Internet use – both 'traditional' Internet, mobile Internet, streaming, use of Apps and any new forms of Internet use that can be considered to be Internet use.
- All platforms should be measured: PCs, mobile phones, tablets and any other platforms commonly in use during the contract period.
- Have a site centric measurement and a high quality recruited panel.
- Fulfil the needs of all the different member sites, with 'unique visitors' figures ranging from 100 to 1 000 000 on an average day.
- Have a software solution that eliminates the need for any other analysis tool for an everyday analysis.
- The Web Analytics will measure Internet use in Norway – including demographical data – both in and outside the home – for editorial and commercial use, primarily by advertisers, media agencies and the media itself.
- Data to be reported:
  - Public traffic ranking lists
  - Technical measurement of traffic
  - Panel data with reach figures calculated as number of people, with free selection of demographics
  - Detailed description of online video streaming

To sum up, the main criteria of the tender were:

1. To deliver an Internet Measurement System for all types of sites
2. To recruit a randomly selected high quality panel that is credible and comparable with other media panels
3. To measure all content on any platform and for any device
4. To deliver a modern tool for site centric measurement and reporting

When we started to measure Internet sites in Norway back in 1995, it was a straightforward procedure to measure both local and national newspapers by CATI (Engen & Futsæter, 2013). Almost all of the measured media were websites from traditional newspapers and TV stations. They had the same media titles as the paper editions and very strong brands in their local and national markets. In 1998, the CATI measurement was combined with browser measurements. When use of mobile content started to increase less than ten years ago, we started measuring the largest mobile services as well. We have measured mobile content since 2005, first by CATI and later by site centric and user centric data gathered from people's mobile phones.

The first criterion in the tender was that the media industry wanted a combination of site centric and panel measurement that could provide high quality data for the whole range of participating websites. To meet this challenge, we have developed a hybrid measurement system. The second criterion in the tender was that the clients wanted a high quality panel comparable with other media measurements. To meet this demand for the large websites, we use a randomly selected recruited panel of at least 5 000 respondents to deliver daily overnight figures to the clients. The third criterion was that all forms of Internet use should be measured – whether it is websites, Internet streaming, use of Apps or any new forms of usage that the clients consider as 'Internet use' on PCs, mobile phones, tablets and any other devices in use by the population.

In 2010 TNS Gallup established a hybrid methodology system consisting of three measurements used for three different purposes:

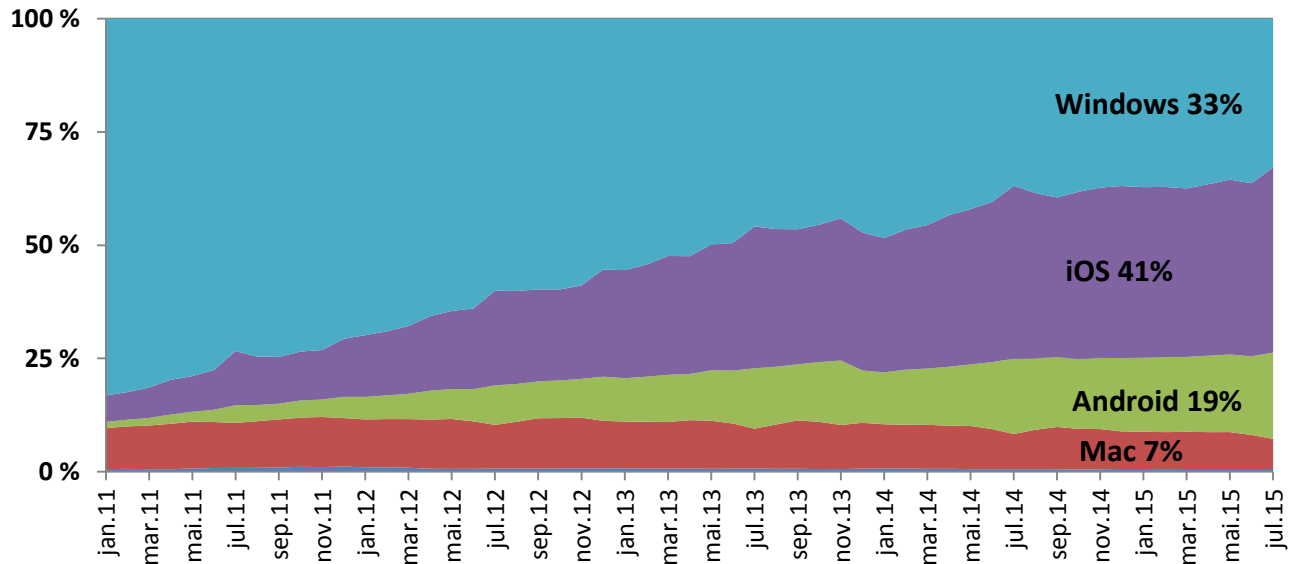
- The site centric browser measurement system TNS Scores gives detailed traffic measurements for all Norwegian web sites.
- The Norwegian Internet Panel (NIP) measures Internet usage at work and at home for all websites measured in Scores. NIP produce official currency figures for national web sites and gives reasonable figures for the largest regional markets and demographic groups.
- The multi-media survey C&M produce official currency figures for local newspapers. The survey makes it possible to perform various analyses such as cross-platform, multi-media and target group analyses.

The official Internet figures from the Norwegian market come from the Norwegian Internet Panel (NIP), but the measurements do not yet include App usage. For this reason, the official Internet figures are too low.

The magazine's websites are also measured in the system. Many of these sites have different names from the paper editions and they are often highly niched market sites. However, the magazine industry also wants to have cross-platform analyses and total brand measurement in conformity with the newspaper industry analyses since 1995. The figures from the net magazine services were calibrated from Scores and NIP into Consumer & Media for the first time in 2013.

The chart below illustrates the dramatic growth in traffic from mobile and tablets from 2011 to 2015. 19 % of the traffic comes from Android devices and 41% from iOS in 2015. This gives us a total Internet usage of 60 % from tablets and mobile devices, a significantly higher percentage compared to 7 % in 2011.

**Figure 4. Total sessions from Scores: 60% of the traffic comes from mobiles and tablets**



As an important part of the extended scope of the Internet measurement, we started measuring Apps on mobile phones in NIP from 2015. To enable App measurements, the web sites need to implement measurement tags for their Apps, both native and hybrid Apps. Then the panellists must install a ‘panel App’ on their tablets and mobile phones. The panel App connects the device to the panellist ID and we are able to extract our panellist’s App usage from the traffic data. The installation process is synchronised with the browser procedures, hence the browser and the App measurements is activated at the same time. The process has proven to be easy and self-explanatory to the panel member. The panel App even has the functionality for logging into the panel member’s web portal for maintaining their list of devices and background data. It also allows the panellist quick access to panel support.

To sum up we have a:

- Transparent hybrid measurement system
- High quality measurements such as TAM and a system that follows real people across all platforms
- Internet measurements which is credible and comparable with other media measurements
- Specific plans and work in progress to measure all sort of Apps and content embedded in third part web sites

## 5 EXPERIENCES AND CHALLENGES WITH DATA INTEGRATION

In 2012 we started considering integration of Internet data from the two passive electronic measurements Scores and NIP to the Consumer and Media database. Our ambitions were to develop valid and feasible data integration procedures. After discussing the project with several providers and experts, TNS Gallup contacted one of the most experienced companies on media research and data integration, RSMB.

The goals of the project were:

- Enrichment of C&M study with the inclusion of internet usage metrics taken from NIP
- To evaluate the quality of the fusion and to learn more about data fusion techniques
- To promote and market data integration techniques in TNS Gallup and in the Norwegian market

The NIP to C&M fusion was complicated and demanding like other fusion projects. The key to a successful fusion is to have complete data sets with sufficient number of records and enough common variables to be used as ‘hooks’ in the matching process between the donor and the recipient data set.

The stages in the NIP to C&M fusion project were:

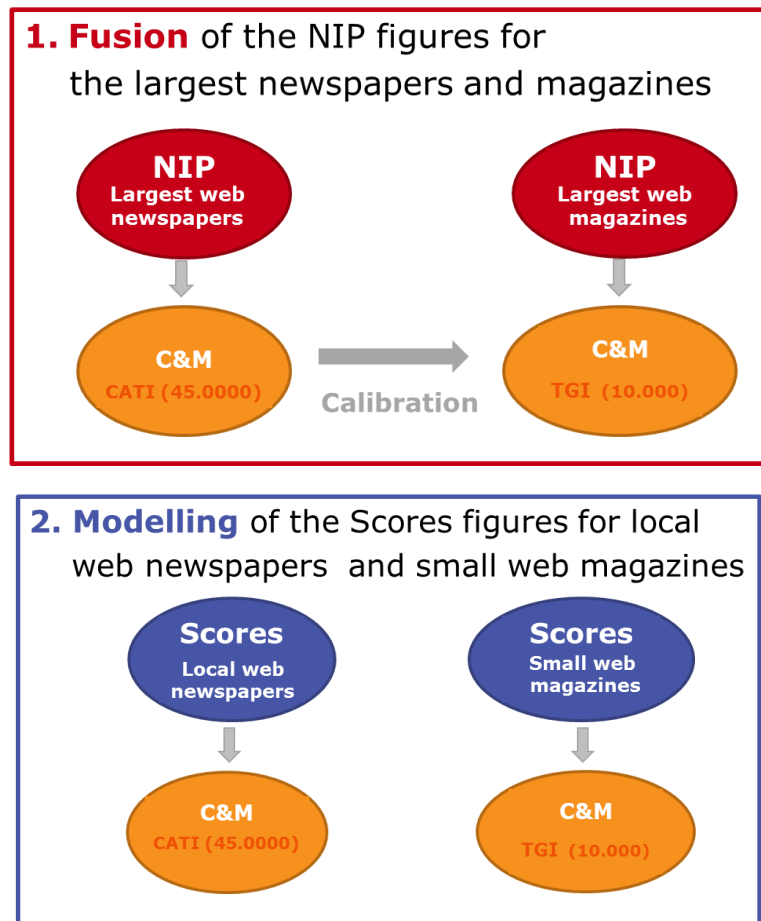
1. Data file management and formatting
2. Identify media response variables
3. Identify demographic fusion hooks
4. Identify media behavioural fusion hooks
5. Calculate importance weights per hooks
6. Calculate penalties and distance
7. Set-up & run fusions
8. Calibration routine
9. Produce deliverables
10. Comparison to original data set
11. Evaluation and Fusion Diagnostics

Two separate data integration approaches were identified in order to achieve the overall enrichment of the C&M data set:

1. All web sites measured in NIP:  
Fusion of official NIP figures for the largest web sites for newspapers and magazines
2. For web sites 'too small' to be measured in NIP:  
Modelling of Scores figures for local web newspapers and small web magazines

The following graphic summarises the scope of the work:

**Figure 5. The two data integration approaches**



However, there were some challenges. Firstly, Scores is not a respondent level dataset so modelling Internet figures from Scores to C&M not only for the total population but also for important segmentation groups would be very time consuming and challenging.

Secondly, all respondents in C&M should have a probability for visiting a website on an average day. These individual probabilities will sum up to a total daily reach for a particular web site. Equal probabilities were created for the panelists in the NIP dataset before the fusion procedure. The challenge was to be able to match both daily and weekly (7 days) reach based on a single set of probabilities.

Thirdly, duplications between desktop, tablet and mobile for all web sites must be preserved to match the overall net reach. In addition, duplications between all web sites in a digital fragmented media landscape had to be taken into account when fusing the data.

Moreover, we met additional challenges with magazines portals with several content categories, syndicated services which are essential for the newspaper industry and finally there were some geographical issues for local newspapers.

## 5.1 THE FUSION OF THE OFFICIAL NIP FIGURES FOR THE LARGEST WEB SITES

During spring 2015, RSMB conducted two fusions for the largest newspapers and magazines, four fusions in total:

### Stage 1

1. Fusion of newspaper web sites from NIP to C&M CATI
2. Fusion of magazines web sites from NIP to C&M TGI

### Stage 2

1. Fusion of newspaper web sites from NIP to C&M CATI
2. Fusion of magazines web sites from NIP to C&M TGI

All fusions have been successful and the results are very satisfactory. RSMB have done an excellent job in preserving daily and weekly reach, for the total population and for important segmentation groups like sex, age and geographical areas.

For all four fusions, RSMB have formatted the two data sets, replaced missing values with adequate values and conducted several statistical analyses in order to determine the linking variables ('hooks') with importance weights. With the help of advanced fusion processes they have found exact matches for recipients in the donor data set in terms of all the critical variables, and the second best match is found by using a concept of statistical distance. Penalties were given to prevent single donors being used too frequently in the matching process. The fusion diagnostics and test runs show a very successful matching process.

### RSMB managed to:

- Preserve satisfactory levels for total daily and weekly reach for all web sites by retaining the one probability per respondent
- Preserve satisfactory levels for daily and weekly reach for the newspaper web sites in different geographical areas, and for magazines web sites by sex and age groups
- Preserve satisfactory levels of duplications between devices and across web sites
- Preserve satisfactory levels of daily and weekly reach for the syndicated services and content categories belonging to different magazines portals.

## 5.2 THE MODELLING OF SCORES FIGURES FOR LOCAL NEWSPAPERS AND SMALL MAGAZINES

In 2015 we report 360 digital titles in the Norwegian NRS system (C&M):

- 171 websites, of which 142 have less than 50.000 daily users
- 136 mobile sites, of which 117 have less than 50.000 daily users
- 53 mobile sites, of which 45 have less than 50.000 daily users

In total, 304 of 360 (84%) sites are too small to be measured in NIP and reported in InfoSys+ Internet. As already mentioned a fusion would not be possible for these web sites. Therefore, the only possible solution would be modelling internet figures from Scores to C&M. However, Scores is not a respondent level dataset, so we are only able to model a total daily reach figure and a total weekly reach figure for each web site. In C&M reach figures within different demographic profiles are as important as a total reach figures. Consequently, modelling was not considered an adequate solution and we decided to continue with the calibration method we have performed over the last years.

## 5.3 CHALLENGES AND A PRELIMINARY SOLUTION

As pointed out in chapter two, the publishing houses are hungry for more and more detailed digital data. They want data for different content types, such as ordinary free content, paid content ('+', 'extra' and behind pay walls), 'e-paper'/PDF, Apps etc. and they want to report the content by platform (desktop, tablet, mobile). Additionally, there is the mixing of content and platforms and development of new content and platforms such as smart watches. These highly fragmented media landscapes raise huge challenges for the measurement and reporting of digital content. The technology changes very rapidly and people's use of



digital content evolves. On top of that the media industry wants as fresh data as possible, especially to compete with programmatic planning, and the media and measurement industry struggle to finance research when more and more advertising money goes to global companies such as Google and Facebook.

In this context, *simple modelling looks more feasible, faster and cheaper than sophisticated, advanced fusion techniques to give the media, planners and advertisers adequate tools for the future.*

## 6 MEASURING CONTENT EMBEDDED IN EXTERNAL SITES

The Norwegian Internet Panel (NIP) consists of real people making it possible to conduct demographic analyses for Internet usage. NIP measures Internet usage in terms of net reach on all devices and the measurements are controlled for duplicate reach.

One of our greatest challenges in the panel measurement is to measure traffic on the Norwegian sites routed from Facebook. With a daily reach of 68 % (see figure 1), Facebook is the largest medium in Norway and measuring its media content is very important. In Scores however, we measure all traffic coming from all types of browsers and Apps, including the traffic that comes from third party web sites like Facebook.

Even though App measurements were introduced in the panel in 2014, we do not yet have a full measurement of native Apps in the panel. Furthermore, the reading of media content through external Apps like Facebook is not technically possible to measure in NIP. Because of this, 8 % of the desktop/tablet traffic is on average not measured in NIP, some sites even have as much as 13 % of their traffic not measured in NIP. Moreover, 51 % of the mobile traffic is not measured in NIP and some sites have as much as 91 % of their mobile traffic not measured in the panel.

Figure 6. Amount of traffic from Apps that are not measured in NIP

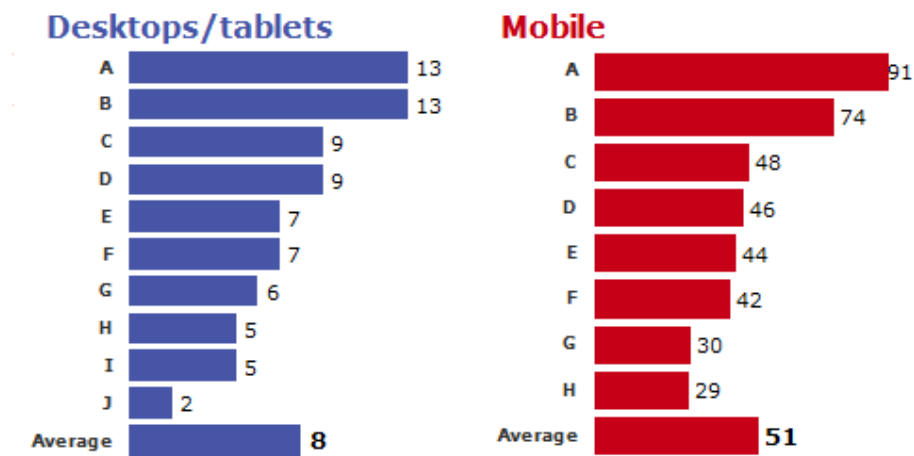


Figure 7. The best of both worlds: The Norwegian Internet Panel (NIP) and the traffic measurement Scores

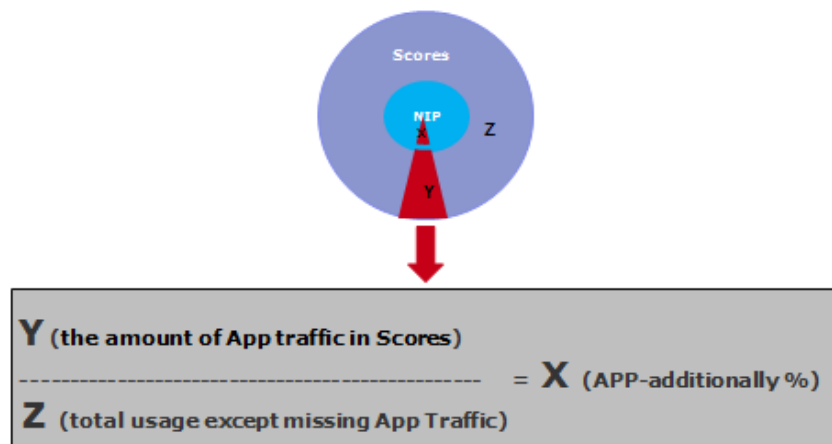


### 6.1 MODEL E: ESTIMATION OF APP USAGE IN NIP

Our goal is to calibrate correct Internet figures from NIP to Consumer and Media (C&M). However, original NIP figures are not correct by that very fact that App usage is not fully included in the measurements. Therefore, we add the share of App usage measured in Scores to the original NIP figures. Consequently, we obtain the best estimates for total reach to be used for calibration into C&M.

The estimation of App usage in NIP is named ‘Model E’ and it is quite simple (see figure below): ‘Z’ equals total digital usage measured in Scores whereas ‘Y’ equals the amount of App traffic measured in Scores. The ratio of the two figures gives us the amount of missing App usage in NIP (‘X’). X is added to the original NIP measurements giving us an estimate for total reach.

*Figure 8. Model E: Estimation of App usage in NIP*



After working with Model E for a while, several questions and challenges appeared:

- The largest sites have valid figures from the NIP panel but what about the smaller sites?
- Does the size of the site matter when it comes to frequency of use on different platforms?
- Should mobile sites be calculated separately?
- Different sites have different usage on different devices and platforms
- At last we have the political aspect and the competition between sites and companies

This resulted in months with analyses and meetings with several committees. Eventually, we agreed that the web sites should be divided into three different groups and that Model E for calibration to C&M should only be used for web sites in the first group. For web sites in the two other groups, a factor CTP ('Cookies To Persons') should be multiplied with the Scores figure for calibration to C&M.

The three groups:

1. Group 1: Largest web sites and mobile content with 50.000 or more daily users
2. Group 2: The web sites not included in group 1 with usage on desktop/tablet
3. Group 3: The mobile web sites not included in group 1

**Figure 9. Three groups for calculation of all sites**

	Estimates
<b>Group 1:</b> The largest websites and mobile services with 50.000 or more daily users.	Individually calculated
<b>Group 2:</b> Use of website on desktop/tablet with less than 50.000 users	CTP (desktop/tablet)
<b>Group 3:</b> Use of mobile content with less than 50.000 users	CTP (mobile)

CTP: The CookiesToPersons factor are multiplying the Scores figures into persons.

## 6.2 CURRENCIES AND DUPLICATIONS

### 6.2.1 Currencies for print and digital content

The print currency for newspapers is based on the Pure Recent Reading method (Futsæter & Østnes, 2009) and the currency for print magazines on Recent Reading (Broady, Futsæter, Sandvik & Østnes, 2013). There are not any official currencies for digital content in Norway that everybody uses for all types of planning and selling (see chapter two). However, we use daily reach for newspapers when we compare digital content with print and calculate duplicate reach, net reach and construct media houses figures. Since all the largest printed newspapers and most of the local newspapers have 6-7 weekly editions, we can use the same currency for print and digital for most brands – “daily” reach.

When it comes to magazines it’s more complicated. The printed magazines have from weekly to quarterly publications. Most of the commercial campaigns for magazines are weekly and the publishers have agreed that weekly reach for digital content and traditional Recent Reading figures is the best way for comparing print and digital and to construct media houses reach.

### 6.2.2 Are we able to control for duplications?

As pointed out in chapter five we are not been able to fuse all types of sites from NIP to C&M. Actually we are in 2015 just able to fuse only 16% of the sites and the publishers want to report even more sites on different platforms next year. For these reasons we have decided to retain the use of calibration techniques when reporting digital content in C&M. If the publishing industry decides to use Model E to add the share off App usage, we cannot with our calibration techniques control for duplications and net reach.

In an ideal world we would like to have full control of all sorts of duplications and net reach for digital content regardless of publication platform and use of different devices. However, this is not possible anymore and we have to make difficult priorities. The most important issue as we see it is to report the size of the publications as accurate as possible, and the drawback is that we can’t control for duplications and net reach.

## 7 REDUCING THE CURRENCY IN A DECLINING MARKET

### 7.1 SOME PRELIMINARY FIGURES FROM MODEL E

Model E estimates figures for all digital content for persons. The recall figures from C&M are the figures that have been used in the market since 1995. The ratio of NIP (Model E) and C&M illustrates that different measurements give different figures (see column 'Index (NIP/C&M)' in the table below). The average index is 92 which is politically acceptable.

However, the three large newspapers 'A', 'B' and 'C' have low indexes. The total footprint of the media brand, where reading of the printed editions is also included, is reduced by up to 20%. All of the researchers and even the marketing directors in the newspapers trust the estimated figures from model E, but lower figures could often be a challenge.

Figure 10. Different measures gives different figures

	NIP (Model E)	C&M	Index (NIP/C&M)
<b>A</b>	1658	2172	76
<b>B</b>	1035	1372	75
<b>C</b>	643	885	73
<b>D</b>	239	214	112
<b>E</b>	185	187	99
<b>F</b>	141	133	106
<b>G</b>	140	133	105
<b>Average</b>			<b>92</b>

### 7.2 THE POLITICAL IMPLICATIONS AND DECISIONS

It is a tough decision to reduce the currency for the newspaper industry which already is in a demanding digital transformation process with heavy economic problems (see chapter two and three).

Since the main purpose of using Model E was to report the figures in the multi-media database Gallup PC (Galileo) some publishers also start to question why they should 'reduce' their figures to get the best comparison figures with the passive electronic measurement for digital content - when the TV-channels figures were not calibrated with the official TV-meter currency. The market directors and the top leaders of the publishing houses were suddenly engaged in the process and they lacked the background and the understanding of the methodological challenges with keeping the recall data.

In June 2015 MBLs Market Committee decided not to implement 'Model E' for the reporting of C&M in September 2015. They were concerned with equal competition, special towards TV but they did agree that we have to use the passive digital measurements. The goal is still a 'Model E' solution, hopefully within this year.

## 8 FINAL REMARKS

### 8.1 SUMMARY

The media ecosystem is being transformed in unpredictable ways and content is consumed on several platforms. Recall methodologies have their limitations when it comes to measuring all types of digital content. We have to combine traditional surveys with passive electronic measurements and use more and more data integration techniques to report consumption of digital content in the traditional NRS databases.

TNS Gallup has successfully been reporting the total media brand footprint of the media houses using the recall method in the multi-media survey Consumer & Media since 1996. We have later introduced browser measurements, mobile measurements and a high quality panel. The internet measurement is credible and comparable to other media. We started discussing integration of data from the passive electronic measurement Scores and NIP into Consumer & Media database in 2012, and we were pretty optimistic. Now we have learned that fusion from NIP to C&M is very complicated and laborious from a technical point of view. It involves a lot of file management, statistical analyses and several people working at different stages of the process. Additionally, there are methodological challenges to be solved. However, together with RSMB we have run several successful test projects where we have fused NIP data into to C&M.

There will always be sample size limitations regarding the usage of panel data for fusion into C&M TGI. Even with double or triple panel sizes, the samples would never be large enough for the smallest sites. On top of that, the publishing houses are hungry for more and more detailed digital data and they want real time data, not several month old data. In this context, simple modelling such as calibration could be more feasible, faster and cheaper than advanced fusion techniques.

TNS Gallup has done some promising work to estimate content that is embedded in external third-party sites. We started with the original NIP figures and simply added the share of App-usage as found in Scores. The modelling also involves CookiesToPersons factors that transform Score's unique visitors into persons. We can then estimate total reach used for calibration into C&M. The drawback is that we can't control duplications. Today we believe we have developed the best system for reporting the most valid figures, but it is up to the market to decide if it's feasible and politically acceptable. However, at the next PDRF synopsis in 2017 we might present a different solution. The technology and media industry changes continuously and the media research must innovate faster than ever to cope with the changes.

### 8.2 FUTURE PERSPECTIVES

The stakeholders struggle to agree on what they really need and global players such as Facebook and Google have developed their own system for planning and selling advertising. 16% of the total ad turnover in Norway goes to Facebook and Google (iProspect Estimates, 2015). The media houses try to build their own services based on log in. In this context traditional official media surveys such as C&M struggle to be relevant. C&M can offer transparent data on a general level such as daily and weekly reach and perhaps page impressions. The multi-media survey, C&M, also gives cross-platform, multi-media and target group analyses. We have to use different measurements depending on the purpose for our analyses.

As noted in chapter three, we expect the future of online planning, sales and analyses to develop more into two separate reporting requirements. One direction is to enhance the current reporting on websites usage, effectiveness, report on 'true' people and target groups, show unduplicated users between different sites, platforms and applications. In the other end of the media landscape, media agencies and advertisers are in need of unbiased, true people based reporting on online campaigns. Content measurements using the same background demographics and target group indexes as C&M can provide, can be used in combination with ad and campaign reach, non-human traffic, in-view and click rates. These reporting needs are not directly linked to the traditional website measurement KPIs, but will come as a result of online advertising turning towards more programmatic and enhanced placement technologies. The unforeseen development of the digital landscape will only enhance the need to re-develop measurement services and KPIs, and the media houses and media agencies will only benefit from having the ability to plan on total brand and pure online KPIs, but also be able to report back to advertisers the actual reach and effectiveness of their online campaigns.

One of the most crucial challenges for the research industry is that the stakeholders struggle to reach agreement on what they really need. Are programmatic solutions the answer? Are we measuring the right things? Is media really being bought across consumption on different devices? Can we still afford quality and is data quality losing relevance?

## References

- Broady, Adina, Knut-Arne Futsæter, Ingvar Sandvik and Tore Østnes (2013): *3XNEW – A NEW ERA FOR MAGAZINE RESEARCH IN NORWAY*. Print and Digital Research Forum in Nice 2013.
- Engen, Geir and Knut-Arne Futsæter (2013): *Measuring media content across several platforms in a highly developed media market*. Print and Digital Research Forum in Nice 2013.
- Futsæter, Knut-Arne, Ingvar Sandvik and Tore Østnes (2011): *Implementing extended currencies and rethinking the current print price models*. Print and Digital Research Forum in San Francisco 2011.
- Futsæter, Knut-Arne, Ingvar Sandvik and Tore Østnes (2009): *The new NRS in Norway – from AIR to extended currencies for newspapers*. World Readership Research Symposium in Valencia 2009.
- IRM: Revidert prognose: *Dette norske medie- og reklamemarkedet i 2015* (18.03.15)
- iProspect Estimates: *Ad spending on Facebook and Google 2015*. 2015.
- LAC, *Avisrapporten fra LAC 2.0*. 2015.
- Page, Katherine (2013): *Audience measurement Worldwide: Latest Developments*. Print and Digital Research Forum in Nice 2013.
- PricewaterhouseCooper (PWC): *Global Entertainment and Media Outlook 2015-2019*. 2015.