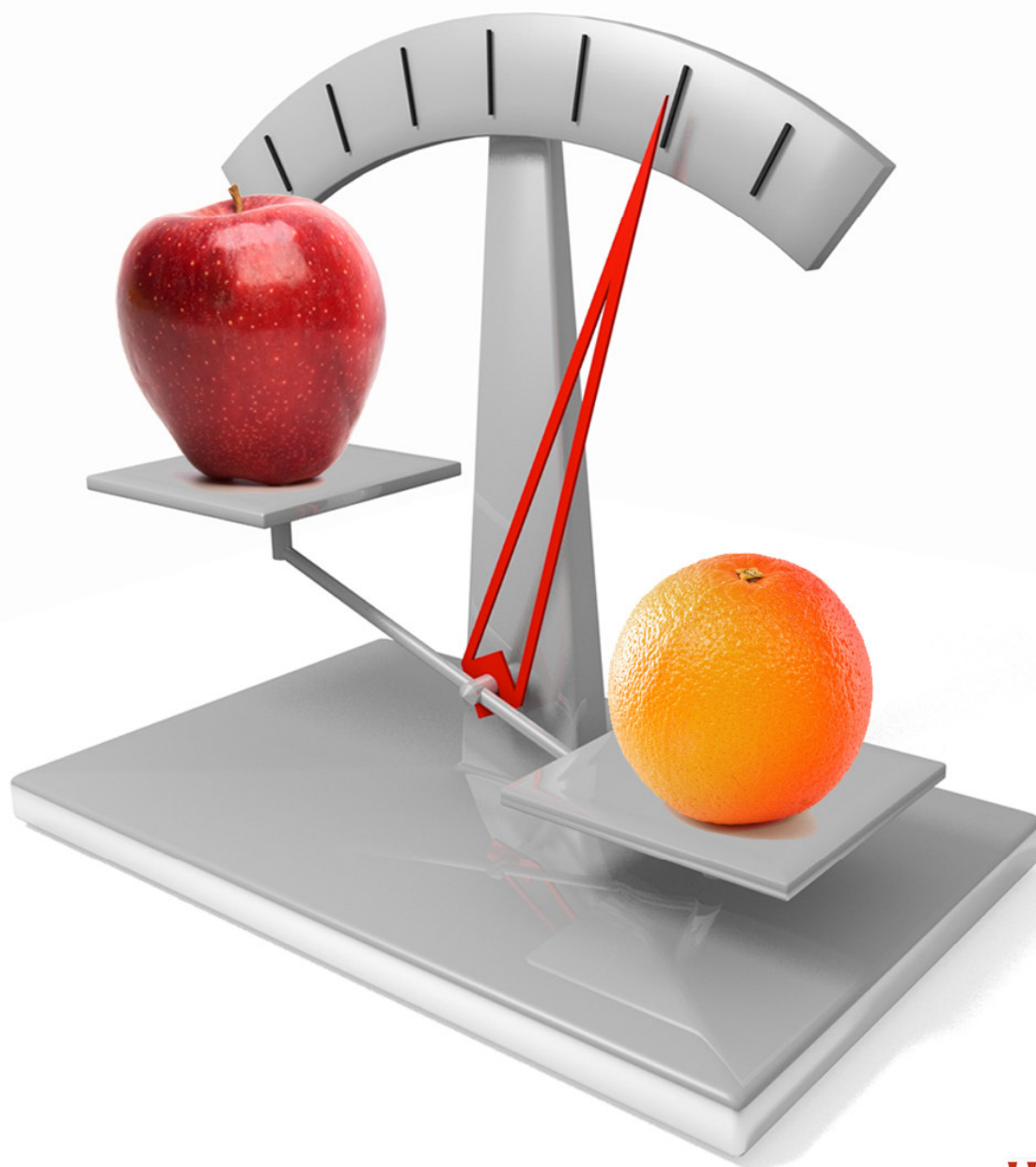


Why don't my visitors match my visitors?

White paper about deviating measurements through web analytics, panel research and ad management statistics.

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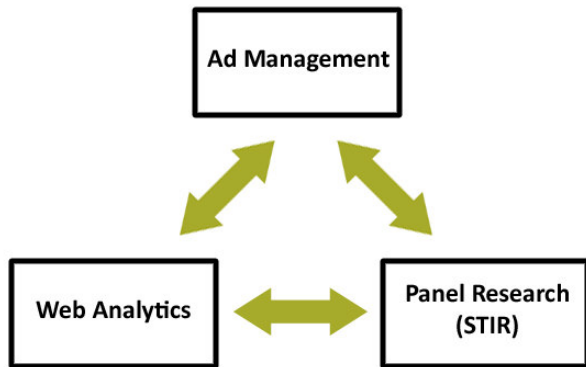
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1. Management Summary

The idea for the white paper 'Why don't my visitors match my visitors' came from the Web Analytics Association. In 2008 the taskforce Online Media was established to examine the use of the different online media analytics systems as used.

To provide insight into the different underlying principles of online measurement systems we have defined the following triangle:



- How do the methods for measuring these web analytics systems relate to each other?
- What causes the deviations between results?
- What data are relevant in which situations and for what target groups?

First of all, this white paper will describe the different options that may result in deviations when comparing two or more different web analytics packages. The implementation, the placement of the measurement code and the differences in definitions between the different web analytics packages are the main causes of deviating analytics.

It is advised to use web analytics for internal reporting, trend monitoring and the optimization of websites and campaigns. Do not compare data from different period measured by different web analytics packages.

Another aspect that this white paper will be discussing are panel data. Panel data provide insight into in behaviour of users, based on reach, using an instrument called Webmeter. The web surfing behaviour of approximately 10,000 panellists is registered every month, after which it is reported nationally. This allows for the number of visitors of STIR websites and their profiles to be established. This completely different method for analysing website traffic also yields deviations with web analytics packages. The differences can be explained by the following elements:

- Measuring panel members versus cookies
- STIR only measures 13+ and Dutch citizens
- STIR is an estimate, not an exact number
- Implementation of analytics code
- Inaccuracies in audience measurements

It is recommended that STIR reports are mainly used for (external) reports about the visitor profile and to compare it with other website operators.

When comparing web analytics packages with ad management systems one must be aware of the objective of ad management systems. Ad management systems support the overall process of inventory planning, sales, booking, serving and reporting of online ads. This implies that the measuring focuses on the banner impressions rather than the pages. Deviating measurements can, in this case, be explained by the following aspects:

- Banner positions
- Ad blockers
- Time of measurement
- Use of frames

It is recommended to primarily use ad management systems for the inventory of online ads and campaign reach and effects.

Unfortunately it is not yet possible to bring the three analytics systems described together in a single measuring system. As of 2011 Dutch panel research conducted by STIR is to start measuring advertising reach and STIR is considering the use of web analytics data for part of the results. But even if this becomes a reality, there will always be deviating measurements between the different systems.

Therefore we need to ask ourselves how to handle the accepted differences in output. In addition to an explanation of the deviations between the systems presented in a diagram, for easy reference, this white paper also presents a table in which the research or analysis objective determines which system to choose. This white paper thus offers a handle for those who need to know: when do I use data from web analytics, ad management or panel research?

2. Introduction

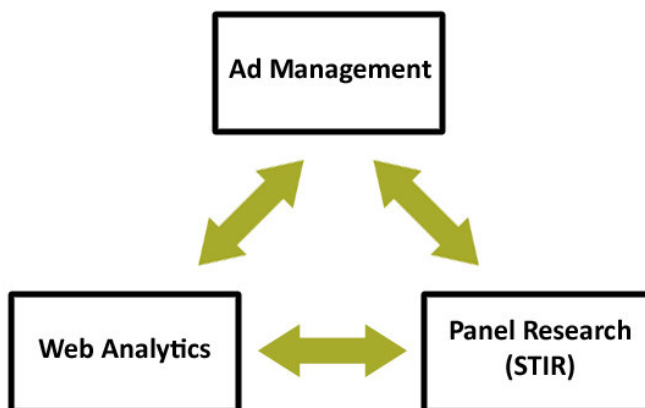
Anyone working with web statistics, from planners to researchers, will have wondered at one point: what do I do with all the different diagnostics packages available for measuring the performance of my websites? When do I use which package, how do deviations arise and how do I interpret the results?

In the Netherlands, STIR is the current standard in the market where audience measurement is concerned, yet in addition every website owner will use data from web analytics packages such as Google Analytics, Omniture, Sitestat and Webtrends. The planning and payment of online advertising campaigns, on the other hand, is not done on the basis of audience measurements through panel research (such as STIR), yet on the basis of banner impressions as measured by the planning software (DART in 95% of the cases). Is it possible to link the data gained from these various sources? And if so, how? This white paper will try to answer these questions.

For this, the Web analytics Association (WAA) set up the task force Online Media in May 2008, to share knowledge, start up joint initiatives and further develop the domain on the basis of what the market needs, e.g. the definition of standards. The WAA is an independent body and information platform in the field of web analytics.

The Taskforce Online Media considers it to be its main task to examine the differences between web analytics packages, STIR and Ad Management systems.

In other words, the objective set for this Taskforce is to provide insight into the deviations in the measurements and relations within the following triangle:



The following questions have to be answered:

1. How do these web statistics relate to each other?
2. What causes the differences in results?
3. What data are important in which situation and for which target groups?

In chapter 3 of this white paper an example will be used to illustrate the different data an analyst in a random company has to deal with. Chapters 3 to 5 then describe the measurement methods of the three sources described above. For this, the Taskforce invited experts in each of the issues to explain their

measuring method. The Taskforce interviewed Peter Wiegman (STIR/VINEX), Andries de Jonge (DQ&A) and Bart Gijsen and Martijn Staal (TNO). Finally, we will make recommendations for the market on how to handle the differences in web statistics.

3. Deviating Measurements Web Analytics

Seeing that deviating results from different web analytics packages are a frequently encountered problem, this chapter will first home in on a study on the issue performed by the Dutch scientific research organization for businesses, TNO, early 2009.

Web analytics packages all share the same purpose, i.e. providing insight into the performance of websites in order to optimize these. There are various web analytics packages on the market, which can be based on different technologies and distinguishing functionalities.

In practice we find that there are differences in the data as measured by different web analytics packages. When two or more packages have been implemented simultaneously there will always be differences between the data obtained. In 2009, TNO performed a study into the differences between the different web analytics packages. An important question posed in this study was what percentage of deviation between the packages is realistic.

# of WA packages	Max-Min deviation <u>usually</u> (1 in 2) no larger than...	Max-Min <u>rarely</u> (1 in 10) larger than...
2	9.5%	23.2%
3	15.8%	29.0%
4	19.7%	32.4%
5	22.5%	34.7%
6	24.7%	36.6%

Otherwise the packages have not been implemented correctly!

Source: TNO; *Verschillen in Web analytics, 2009*

From this study we may conclude that there are deviations in the measurements of two packages of 10%, and that it may even be more than 20%. Thus the data really depend on which package is used.

Web analytics deviations are web site-specific. Two packages applied to the same website may yield deviating numbers. TNO concludes:

- The numbers can deviate by more than 30%.
- The deviations are not identical for visitors, visits, page views, et cetera
- Across different measurement period the deviations are fairly consistent.

Implementation

How do these deviations arise? The Web Analytics Shootout by Jim Sterne from 2007 demonstrated how there may be various causes at the root of this. The main cause that needs to be checked first is package implementation: was this done correctly?

If measurement codes were implemented incorrectly this will definitely lead to deviating measurements.

It is recommended to place a single measurement code below the source code per web site. By placing the measurement code below the source code one can be certain that the relative page will in fact be loaded when the measurement is performed.

If there are multiple measurement codes of a single web analytics package in one page, this page is measured as many times as there are measurement codes. As these measurement codes are placed below each other the measurement code that comes first will be measured before the one that is

placed lower in line and this results in deviating measurements. Especially if the visitor only pays a very short visit to the web page in question.

If multiple web analytics packages are used simultaneously on a website, it may be that all web analytics measurement codes are not placed on each web page. If no measurement code has been included, there will not be any measurement.

In addition to the implementation there are a number of other important factors that may cause the measurement differences. They are:

Difference in method of measurement

Not every web analytics package use the same method for measuring. This will lead to deviations in the data to be reported. There are three basic methods:

- Javascript/Pixel method: an analytics measuring code are placed on a web page of a web site. When a page is visited a cookie is placed on a visiting computer. This is by far the most frequently used method.
- Sniffer method: This method read traffic between visitor and the server.
- Server Side/log file method: The log files of the web server of the website in question is read.

It is not recommended to compare the results of 2 packages that use different methods of measurement. The pixel method measures visitor behaviour. Log file measurement record the number of times a page is requested on technical side of the web site.

Definitions

Definitions, especially of a notion such as (unique) visitor, may differ. The interpretation and representations of the data can therefore differ.

The different definitions of (unique) visitors may cause confusion. What is considered as unique? The advanced web analytics packages allow for determining the unicity of the visitor based on the desired period. How has 'unique' been defined: unique per visit, per day, per week, per month or per reporting period? Before comparing unique visitors between various packages it is important to look at these definitions and the settings of the relevant report.

Cookies/ IP

Most Web analytics packages use cookies to uniquely identify a visitor. In the event of refusal of cookies by visitors, the more advanced packages can also recognize these by the IP address. Since not every package is able to do this, there will be disparities in the number of (unique) visitors. Web analytics packages that only recognize a visitor via a cookie, will obviously record fewer visitors than packages that record both cookie and IP address.

Differences in measuring scope

If the visitors and page views of a newsletter, for example, is included in one web analytics package but not in the other, this will result in significant differences in reported data.

Filtering traffic

It is common practice to exclude certain traffic when drawing up reports. This could be the IP addresses and robots of the actual website creators.

In part, filtering is an automatic definition of the web analytics package and there are differences between the various packages. The definitions can also be specified by the user. This may result in differences between the various packages.

Browser settings

Certain measurement are based on Javascript, for instance. If this is not supported by the browser the measurement cannot be made.

Caching

If pages visited earlier are revisited, files (pages) can be reloaded from the memory of the local PC or a central server. Depending on the web analytics package, such a new visit to the page in question will or will not be measured. The advanced packages have a cookie that cannot be cached so that these page is always measured.

The Web Analytics Shootout report states that the implementation, the placement of the measuring code and the different definitions used are the main causes of the different measurements.

3.1 How to handle deviating measurements between different WA packages?

We found that web analytics may not be primarily used to get absolute numbers, for there will always be (small) differences in the numbers measured. They can be used to spot trends and relative changes compared with other periods. When using web analytics tools it is important to keep this in mind:

- Try not to use web analytics for communicating absolute numbers if an ad management package or panel research have rendered different numbers.
- Do not compare data from different periods that were measured with different web analytics packages.
- Use web analytics data internally and limit the external use to a minimum. The data may conflict with numbers from ad management packages and panel research. Web analytics are therefore internal reporting tools, in principle.

3.2 What *do* we use web analytics for?

The fact that absolute numbers may misrepresent the situation and that there are vast differences between packages does not imply that web analytics do not have significant value. Web analytics are extremely valuable in spotting trends and monitoring relative values. This information can be used for analyzing visitor segments, navigation, campaigns, page versions and so on. This is immensely important information for improving the website and marketing initiatives.

The conclusion therefore is: use web analytics tools for improving the web site and its marketing, avoid comparisons with ad management systems, panel data and other web analytics packages and use the powerful options web analytics offer for achieving optimization and growth.

4. Measurement Deviations Panel Research

Because there are so many differences between all the different web statistic packages, as described in the previous chapter, eight major Dutch Internet operators established STIR (Stichting Internet Reclame) in April 2003. At the time these so called “founding fathers” (MSN, Tiscali, RTL Nederland, WebAds, AdLink, Online, Ilse Media and Lycos) found that the Internet was becoming an increasingly important element of a media campaign, but that the market did not have adequate tools for the proper planning of Internet activities. Especially the lack of data on net audience numbers combined with clear visitor profiles was important. Also, there was no link with existing audience measurements of television, radio and print.

The vision and mission of STIR are:

Vision STIR:

Internet has become a mature medium in a highly dynamic market. This calls for an independent organisation that provides insight into the behaviour of users, based on audience measurements.

The STIR mission:

STIR wants to become the objective standard in the market for Internet audience studies for the advertising market and it wants to act as an authority in this field.

STIR fleshes out its vision and mission on the basis of four core values: proficiency, innovation, reliability and involvement.

When we talk about “STIR results”, we normally refer to the monthly audience measurement data from their tool: Webmeter. Each month, STIR clients receive a new data file that they can use for planning online campaigns. The data file includes the information from the Webmeter of all participant websites and channels.

The Webmeter

The Webmeter measures visits to STIR websites from any location within a panel of some 10,000 respondents. This is performed by logging on to a website and by placing cookies (Tracking through Portal). The Webmeter can be used to determine visitor numbers to STIR websites as well as visitor profiles.

Each panel member has a unique code. On all PCs via which a panel member logs on to the Webmeter website a cookie is placed that includes this unique code and the location of the PC. When a participant website is visited, a measurement is recorded on the Nedstat server.

The recorded measurements of all panel members combined are then provided to Intomart GfK. In combination with the personal details of the panel members these measurements are rendered as raw data about websurfing behaviour. These raw data can be processed to gain websurfing data by means of special software.

The Webmeter studies the websurfing behaviour of the online population in the Netherlands, aged 13 and over. Website visits of foreign surfers or Dutch surfers aged 12 jaar and younger are not included in the results.

The Dutch population aged 13 and over consists of 13,665,000 people (reference date 1 July 2009). This implies that when you reach 10% of the population, you reach 1,366,500 people aged 13 and over.

The Webmeter is based on market research within a group of approximately 10,000 Dutch individuals aged 13 and over. As is always the case with market research, the results are present within a statistic margin of error. The scope of this margin of error depends on the size of the target group in question and the relevant results. For example: in the event of a 10% audience among 10,000 respondents, the margin of error will be 0.6%, meaning that the monthly audience numbers will definitely be between 9.4% and 10.6%.

STIR (Stichting Internet Reclame) performs two further studies the results of which are published with a certain degree of regularity. These two studies are outlined below (for a more detailed description, please go to www.stir.nl).

De Marktmonitor

The Marktmonitor is a panel study among 1,000 people that serves to estimate the total websurfing behaviour and the ratio between STIR websites and non-STIR websites as well as to find potential new STIR participants on the basis of the measurement of the complete home websurfing behaviour on all websites. The results are published twice yearly.

The Establishment Survey

Intomart performs the Establishment Survey for STIR. This study serves to establish reliable population data on Internet use for the weighting and projection of Internet reach data and quotation of the Webmeter panel composition.

The results are representative of all individuals (surfers + non-surfers) aged 13 and over in the Netherlands. For this survey approximately 2,000 people are interviewed per year.

4.1 Deviating Measurements and Web Analytics Packages

The way in which we may interpret the Webmeter results and use these in relation to the data from web analytics packages, is determined by the following aspects:

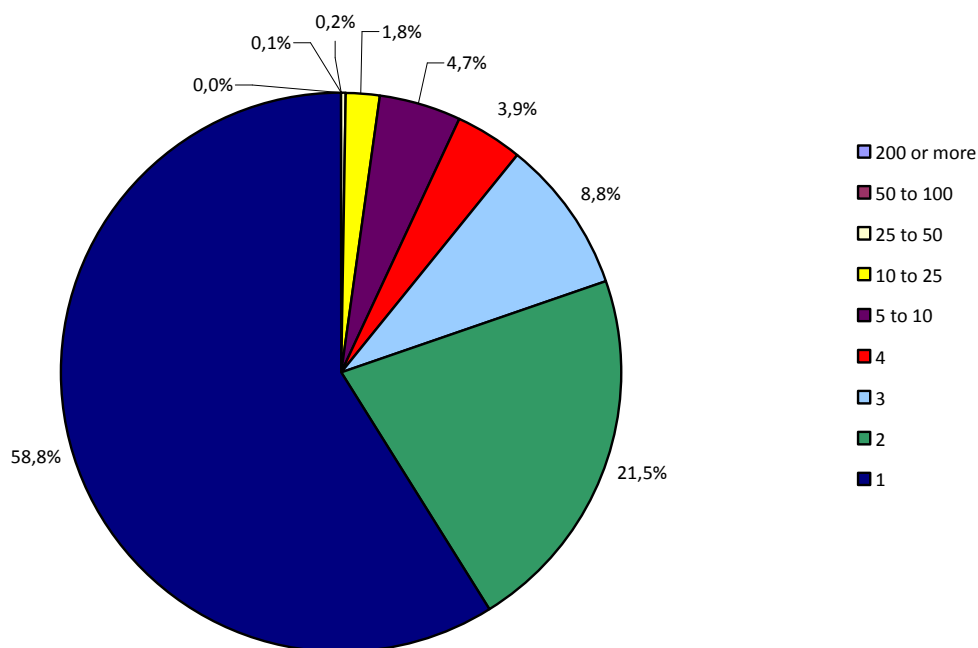
1. STIR measures actual people (panel members) and web analytics packages measure machines (cookies/browser sessions).

On average, a Dutch person using the Internet uses 2.4 cookies a month. This is not just related to the intermediate removal of cookies but also with the change of location (home, work, mobile) and browser sessions (Explorer, Firefox, Safari). Especially the change in location will become more and more relevant in the future, considering the mobility of Internet users and the ever increasing number of new online devices (game consoles, Internet TVs, smart phones like iPhone).

This implies that in theory you could come across a 2.4 difference between the number of visitors as rendered by the web analytics package for your website(s) and the number of visitors that as rendered by a web panel such as STIR, and this can only be explained by the difference between individuals and cookies. It can depend more or less on the target group and the type of website. People who visit a news site will use more cookies (following the news both at work and at home and via mobile devices) than people who visit a streaming video site used for watching TV programmes.

How different the number of cookies per person can be is demonstrated by the next figure of website 'x'. Visitors – recognised as STIR panellists – use anything from 1 cookie to over 200 cookies per month. 59% of them visited the website with the same cookie. 1 in 4 panellists therefore use more than one cookie per month. The average number of cookies per panel member for this website is 2.2.

Distribution total number of cookies among STIR panellists (website x, March 2010)



Source: Nedstat

2. STIR only measures Dutch visitors aged 13 and over, while web analytics measure all traffic, including people under 13 and foreign traffic.

A website, e.g. a news site, that attracts a lot of foreign visitors, will thus show a larger deviation between web analytics and panel data than a website that does not (e.g. a Dutch web shop). A website meant for children under 13 cannot use STIR Webmeter data at all.

3. By definition, STIR panel data are an estimate and the results from web analytics are not.

Since STIR data are gained via a sample drawn from the Dutch population (10,000 people), weighting factors are used to extrapolate the results to the population as a whole. STIR audience data therefore actually are an estimate of the real websurfing behaviour. And this fact automatically implies a (statistically acceptable) margin of error. Web analytics packages do not have this statistic margin of error, as they measure the behaviour of all visitors. But as said these are not people, but cookies. In other words, you never know exactly how many people have really visited your website¹.

¹ Except when you offer protected content on the web site, for which the visitor must be logged on.

4. It is important that when comparing panel data versus web analytics data all pages of the web site contain both codes.

The STIR panel member is recognised on the basis of the STIR method, that every participant in the STIR survey has to implement on the pages of its website. If one or more pages of the website do not contain the STIR code yet do contain a web analytics code (or the reverse), there will of course be differences between the two methods of measurement. This immediately points to a drawback of the STIR method: the content owners have a direct impact on the results, because they are responsible for the correct and complete implementation of STIR counters.

5. As in any audience measurement project, the STIR research method has a certain risk of inaccuracies.

The same as with TV audience measurements the correct log-on and log-off by STIR panel members, every single time they log on to the Webmeter home page before they start and quit surfing the web is crucial. If this is not done in the correct manner the web surfing is not measured properly. This could especially be a drawback for web sites that are visited often from other locations than the home or workplace (e.g. the university or via the mobile phone). One can also imagine that a panel member first opens his e-mail, receives a newsletter and clicks on the hyperlink, which brings him to a website, which he then closes, forgetting to log on. Obviously Intomart has various ways in which every STIR panel member always logs on in the correct manner and the Technical Committee sees to this as well.

4.2 Sample Deviations Web Analytics

Publieke Omroep, the Dutch national broadcasting organisation, has been a STIR participant since the start of the audience measurement. The organisation also has all its pages measured by means of the web analytics package Sitestat. In the table that shows the number of visitors as measured by STIR and Sitestat in November 2009, it shows that Sitestat measured 2.4x more visitors than STIR. This same difference is more or less measured every month. This concerns all the websites within the domain , i.e. the websites of all the Dutch national broadcasting organisations and the umbrella sites called Omroep.nl and UitzendingGemist.nl.

	STIR: unique hits	Sitestat: unique hits	Factor Sitestat v. STIR
Publieke Omroep November 2009	8,154,000	19,457,698	2.4

Source: STIR & Sitestat, November 2009

It so happens that this factor 2.4 is exactly the same as the average cookie burning factor as described earlier (section 4.1, sub 1). The difference, however, is also related to foreign hits; in November 2009 Sitestat reported that 10% of the visitors of the Publieke Omroep domain came from abroad. This means that the number of Dutch Sitestat visitors, which 17,461,313, is still 2.1 higher than STIR.

The Publieke Omroep comprises a large number of websites that are visited by children a lot, including Zapp.nl, Zappelin.nl, Sesamstraat.nl and Sinterklaasjournaal.nl. STIR does not count these visits.

STIR also does not measure all the web content of Publieke Omroep, where Sitestat does record visitors. Think of: mobile web sites, widgets, embedded video and so on, content that STIR is not measuring (yet).

Along with the statistic margin of error (section 4.1, sub 3) and the influence the logon (sub 5) together explain the above considerable difference between STIR and Sitestat visitors.

For STIR participants, Intomart GfK and Nedstat regularly perform an analysis of the differences, that can be used to establish the exact share of each of the above explanations.

4.3 Guideline: How to Work with Web Analytics and Panel Research

In this chapter we described what web analytics packages and Webmeter results can and cannot be used for. As a result the WAA Task Force Online Media has set forth the following guidelines as to the use of both methods of measurement.

Web analytics are used:

- preferably for internal reports on visitors/hits/page views
- for page view reports (STIR does not support the page view as a currency)
- for smaller sites (less than 1% reach in STIR = +/- 140.000 visitors)
- for sites where (many) visitors are under 13
- for sites that get many foreign visitors
- for details on web surfing behaviour (click paths, funnels et cetera)
- for analysing web content that STIR doesn't measure (audio/video/mobile/widgets et cetera)

STIR is used:

- for external reports on audience numbers/visitors/hits/visiting frequency (except page views)
- for audience number percentages among the Dutch population (individuals!)
- for comparisons with other operators (e.g. position in top 10)
- for running audience numbers for specific target groups and to establish the visitor profile

5. Deviating Analytics Ad Management

Objective

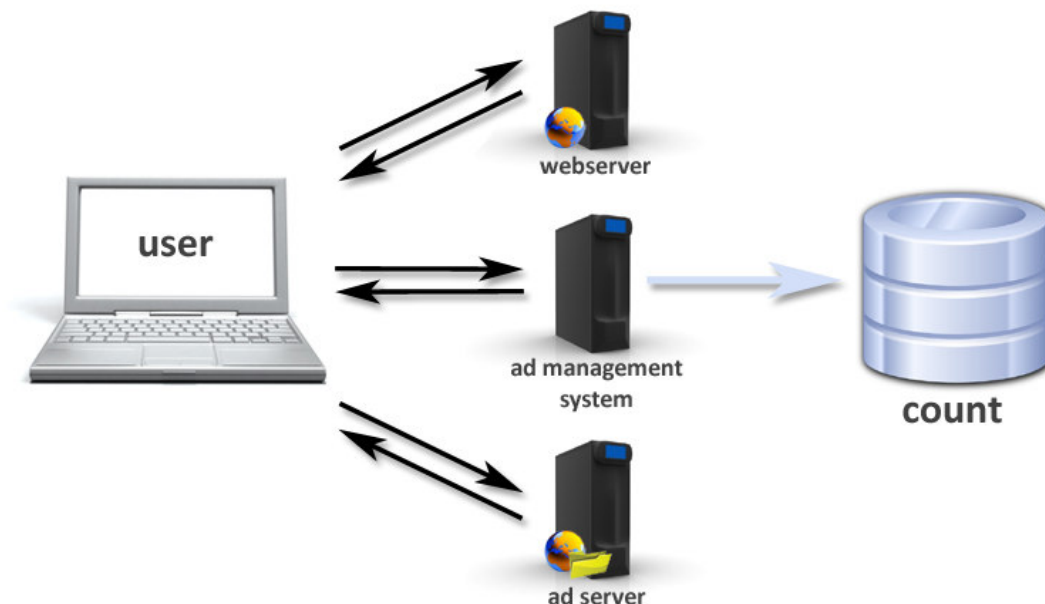
Web analytics packages and ad management systems are designed for completely different purposes. As stated earlier, web analytics are aimed at providing insight into web site use with the ultimate goal of further optimizing use. Ad management systems support the entire process of inventory management, sales, journal entry, and the serving and reporting of online advertising. The reporting here focuses on making forecasts regarding the availability of banner space and accounting for the impressions as delivered and how often people have clicked on hyperlinks.

Method of measurement

The process of serving adverts consists of the following steps:

- a web site visitor requests a particular page
- the web server delivers the page including the tags of the relevant adverts
- the visitor's browser requests an advert in the ad management system
- on the basis of ad management system a set of rules (e.g. targeting rules, frequency caps and planning rules) it is determined which advert is offered
- it is established /counted which advert is delivered to which visitor (according to cookie or IP address)
- the advert is served

This can be visualised as follows:



The measurements therefore focus on banner impressions rather than web pages. If the banner impressions are not fully synchronised with the page views – the (re)loading of a page does not automatically lead to the (re)loading of an advert– it is only obvious that information from an ad

management system is different from that gather by a web analytics package. If the loading of pages and banner impression is fully synchronous, one might expect the number of page views to equal the number of banner impressions and that the number of (unique) visitors of the relevant page from the web analytics package and that of the banner from the ad management system are equal. In practice the reports from both systems, however, show considerable differences. The possible causes of the differences measured are handled in the next section.

5.1 Differences Explained

The deviating measurements between web analytics and ad management systems can be explained in various ways. A number of these causes have already been discussed in chapter 3, because these apply to the differences between the various web analytics systems as well. First, the factors will be discussed that are typical of the differences between web analytics and ad-management systems.

Banner positions and page views are not synchronous

If a banner run site has been placed one would assume that the banner position can actually be seen on every web page. In practice there will always be pages where there is no banner position. Such pages, e.g. the error 404 page, the logon page and the Privacy Statement, are in fact measured by the analytics package.

Ad blockers

Visitors can use so-called ad blockers so that adverts are filtered from the web pages. Thus page views and ad impressions will no longer be in sync. The percentage of Internet users that use an adblocker varies per demographic. In hardcore Internet users the use of ad blockers will lie above the level of 5% which is generally considered as the average percentage for major public web sites.

E.g. on the online player page of Skyradio.nl there is just one banner position. The number of page views and impressions should thus be very close. These numbers for March 2009 in fact were very close:

Page views player page (Sitestat)	630,089
Impressions rectangle position in player (DART)	591,809 (94%)

Whether or not this is a coincidence, the lower number of impressions relative to the page views corresponds to the 5% of Internet users who have an ad blocker in place.

Time of Measurement

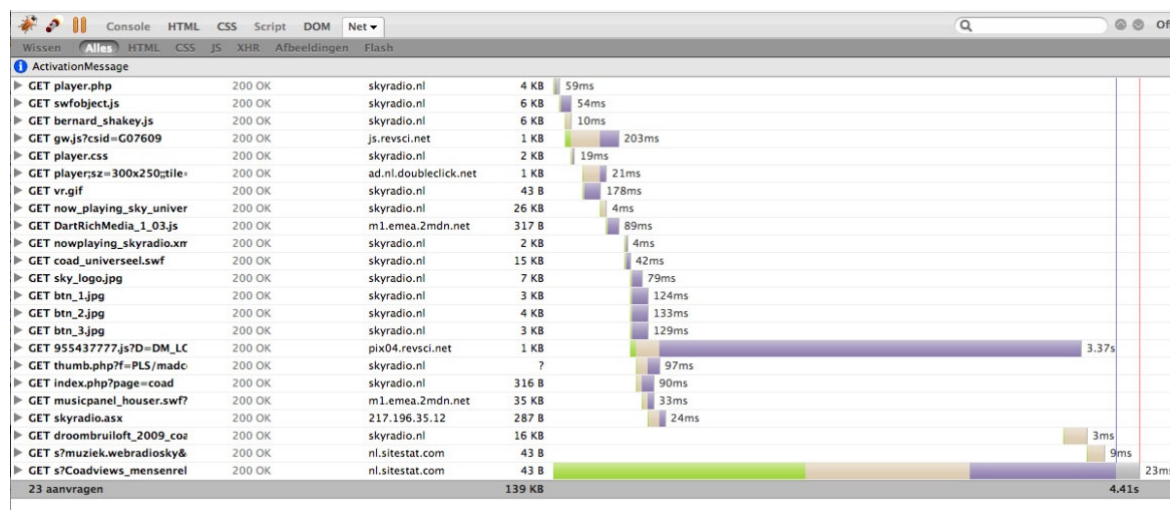
Ad management systems have their own way of measuring:

- when the ad manager receives a request
- when the ad server receives a request
- when the advert has been loaded fully

Evidently the place in the process where the measurement is performed will have an impact on the results. If the ad management is placed at the start of the page loading process and the web analytics measurement is placed at the end, this will definitely yield deviating measurements results. These

deviations will become greater the longer the loading process of the page lasts and the more visitors only pay a short visit to the page. Part of the visitors will have left already before the web analytics measurement is performed.

The following example illustrates this. It shows the player page of Skyradio.nl with the rectangle position that we mentioned earlier, homing in on the factor 'time of measurement'.



Source: Example loading times specific page using Firebug

The above overview shows all 23 (!) steps required to fully load this page. Each step (GET...) has its own load time. If you add them all up, it takes 4.41 seconds (in the bottom right of the screen). During that time many measuring moments may arise. In step 6 you see that it's ad.nl.doubleclick.net's turn: this is the calling of a banner, and 4 steps later is fed back to DART, which is only served 10 steps after that (GET musicpanel_houser.swf?) while 3 steps after that the Sitestat code is called.

The use of frames

The content frame will generally call the web analytics measurement. If the page is substituted without the advert being renewed this will lead to deviating measurements.

In addition there are various causes that could also explain the differences in measurements between the various analytics packages. For a further explanation on the following causes, please refer to chapter 3:

Differences in measurement scope

Definitions

Filtering traffic

Acceptance Javascript

Caching

In short: function, objection and thus the measuring object of web analytics packages and ad management systems are so different that comparing the results of the measurements is like

comparing apples and oranges. Also, we must assume that the list of possible causes is definitely not exhaustive and that it is always subject to change.

5.2 Guidelines: How to Handle Data from Ad Management Systems versus Web Analytics and panel research

Information gained via ad management systems is focused on the planning and performance of online adverts. This information can be used to answer questions like:

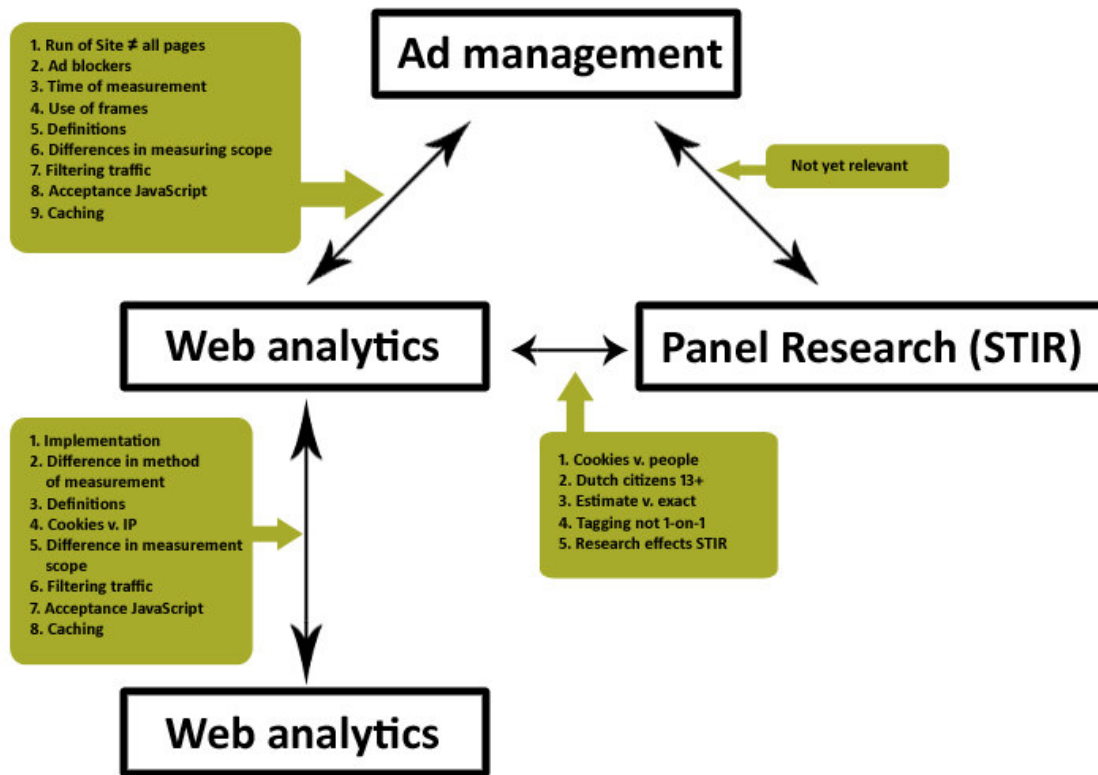
- how many impressions will a particular position generate?
- how many impressions are still available?
- how many impressions will a new campaign generate on the basis of targeting and frequency definitions?
- how many impressions of a particular campaign were supplied?
- what was the click through rate?

For information underlining the position of a site in the advertising market we must first look at panel research data. These will provide insight into audience numbers, overall and by target group, and it allows for a comparison with other web sites. Web sites that do not take part in STIR will fall back on their own web analytics reports.

6. Conclusions & Recommendations

As the previous chapters have shown, there is no solution of the deviating measurements; all we can do and have done is explain them.

The explanation can be summarised as follows:



The three main causes are:

1. Difference in the measurement technique or method used
2. Difference in variable definitions
3. Tagging cannot be compared 1-on-1

Is this a bad thing? No, we do not think it is. The different systems in the triangle all serve a different purpose, and must be used as such. Also, the fact that there are differences between the various web analytics packages is not a bad thing, as long as they are handled correctly. The question is: how do we define 'correctly'?

Please look at this list of Taskforce recommendations that can help make the right decisions when using web statistics.

What is important is that you start from what you want to research or analyze. From this, the source that you can use to answer your research questions will follow. In the table below you will find the

most prevalent Internet research questions and the desired results, with the corresponding most suited source.

	Research Question / Result	Source
1	Inventory online adverts	Ad management
2	Campaign reach and effects	Ad management & web analytics
3	(Sub)elements of web sites, web surfing and trends	Web analytics
4	Web content, other than 'fixed' web sites	Web analytics
5	Page views web content	Web analytics
6	Traffic from other web sites / platforms (referrers)	Web analytics
7	Stream information (number, viewing time et cetera)	Web analytics
8	Real-time analysis	Web analytics
9	Information on small and niche sites	Web analytics
10	Audience numbers of web sites (NL 13+)	Panel research (STIR)
11	Visitor profiles	Panel research (STIR)
12	Competitor analysis	Panel research (STIR)
13	Average contact frequency visitors	Panel research (STIR)
14	Revisits	Panel research (STIR)

This is subject to the following advice:

1. Specify the definition of the variables that you use, both in external and internal publications, in order to avoid confusions. The differences mainly occur in the definitions of "sessions" and "visitor"- deviations in terms of page views often have a technical background. E.g.: is a unique visitor a visitor from a panel study or is it a unique cookie? Are we talking about a page view or an impression?
2. Clearly state the source from which you have gained your information. Was it a panel, a web analytics package (e.g. Google Analytics, Omniture, Sitestat, Webtrends) or an ad management system (e.g. DART)?
3. When using multiple tools be proactive in explaining the differences that may arise and continue to single out the deviations: use the power of repetition.

4. Do not compare absolute numbers with each other, but look at the trend indicated by the different packages.
5. At least make sure than all pages within the website contain measuring codes of the packages used, so that you are referring to the same audience numbers.

About the authors

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Relevant links

<http://www.stir.nl/onderzoek/webmeter>

<http://www.stir.nl/onderzoek/marktmonitor>

<http://www.stir.nl/onderzoek/establishment-survey>

<http://www.webanalisten.nl/achtergrondinfo/presentaties/verschillen-in-web-analytics-systemen-tno-rapport.html>

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