AT INTERNET
Online Intelligence Solutions

USABILITY ANALYSIS IN WEB ANALYTICS

Methods and Tools

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WHITE PAPER

SUMMARY

INTRODUCTION

The article on 2009 e-performance research published on neteco.com ran under the headline *"Have e-commerce sites fallen out with ergonomics?"* (Les sites de e-commerce fâchés avec l'ergonomie?). 22% of Internet users questioned said they had not encountered a problem on the 14 (major) sites audited. This trend was also confirmed in other European countries.

Usability analysis is a vast and complex subject, but one that can lead to gains in productivity and increased conversions. There are several complementary approaches, from the site's general navigation and intuitiveness, to conversion funnels, to the specifics of individual web pages, all of which are covered in this document.

Many solutions want to limit the subject to a mere Christmas tree contest by presenting the flashiest, most colourful analysis, generally to the detriment of crucial features that allows for a significant improvement in ROI. Participating in this game is of course tempting: applying a coloured heat-zone mask to a screenshot gives a very eye-catching visual. However, what will users learn from it when they use it? A nice-looking graph on a report, or a powerful indicator which generates conversions and visitor engagement?

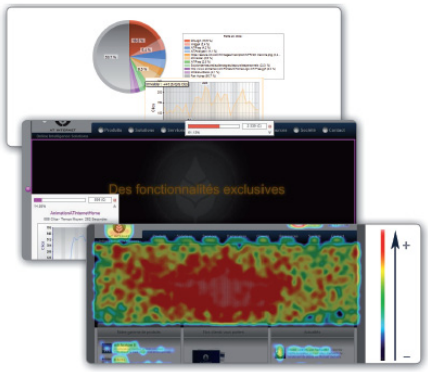
On the other hand, other vendors reduce analyses to austere tables, believing that the manager has no time to waste on such futile efforts.

In this document, we will see how a complete solution will guarantee optimal processing of a page's usability, which will translate into significant gains in conversions and visitor engagement.

EIGHT MOST COMMON ANALYTICS MISCONCEPTIONS

- A web analytics service does not provide a graphical view of clicks
  False! The solution's integrated HeatMap makes this possible
- A web analytics service does not let you measure the time before a click
  False! Overlay mode shows this information
- A web analytics service provides a usability analysis by user type
  True! DataExplorer performs analysis on segmented profiles
- A web analytics service does not let you know if the bottom of the page was ever viewed
  False! ScrollView analyses vertical scroll
- A web analytics service can cross-analyse sales and usability
  True! This can be done with SalesTracker
- A web analytics service cannot detect the page display dropout point
  False! ScrollView's Heatscale is able to accurately identify this
- A web analytics service can combine the Multivariate Testing and usability analyses
  True! Analyzer^{NX} brings all of these features together into one single interface
- A web analytics service cannot measure the time spent in each zone on the page
  False! ClickZone® lets you see data for each zone: time spent, visibility, clicks etc.

WEB MINING: THE "GOLDEN TREASURES" OF A PAGE: CLICKZONE®



A very interesting comparison study by Benchmark Group on the usability of ten data sheets, published on journaldunet.com, clearly shows the complexity of this comparison (http://www.journaldunet.com/ebusiness/commerce/analyse/l-ergonomie-de-10-fiches-produits-a-la-loupe/l-ergonomie-de-10-fiches-produits-a-la-loupe.shtml).

Among the examples studied, particular attention should be paid to the size of the visuals, copy density, price proximity, information on delivery and control button, but also using zoom, bookmark lists, etc.

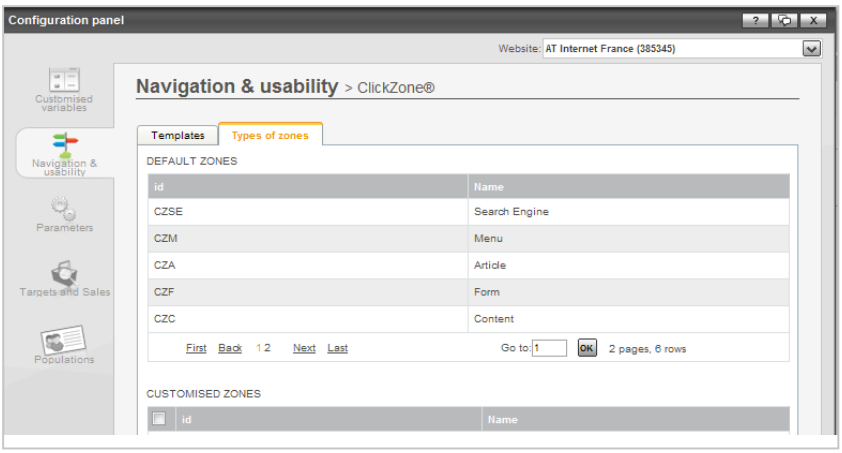
A usability expert's role is to facilitate browsing on the site, making it more fluid and guiding browsing towards target content and achieving site goals. Such experts need accurate and powerful tools to do this, tools that provide a macro view of the page and a micro view of the elements within it.

ClickZone®, within Analyzer^{NX}, offers very precise analysis of site pages.

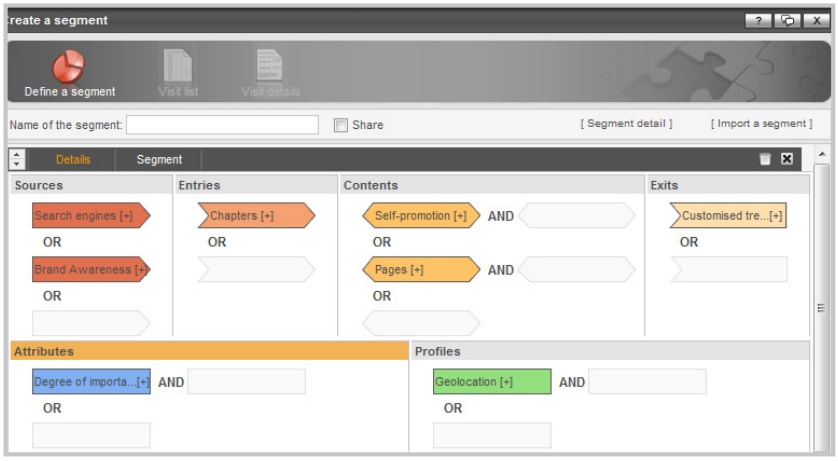
It brings together a complete collection of diagnostic and analytic tools: the list, HeatMap and Overlay modes. With these three methods used to display information, all directly accessible from a single interface (Digital WorkspaceNX), it is possible to gain a detailed view of activity on the page.

Beyond just the clickable elements, a page is generally organised into distinct spaces, some with set content and others with variable or dynamic content, it is also possible to study them individually by dividing them into zones and subzones.

Sometimes it is only necessary to analyse download clicks, or exit clicks for example, with ClickZone® it is also possible to display certain types of clicks, or analyse page templates, to get a precise diagnostic to help with the decision-making process.



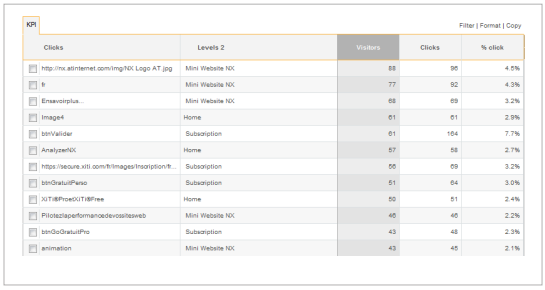
The ClickZone® analysis can also be sgemented within DataExplorer, which adds precision and effectiveness to meet the most demanding needs: it is therefore not only possible to accurately analyse a page's usability, but also to focus this analysis on a particular visitor segment (visitors who purchased online, who use specific equipment, who came from a particular campaign, or even who have a certain personal profile).

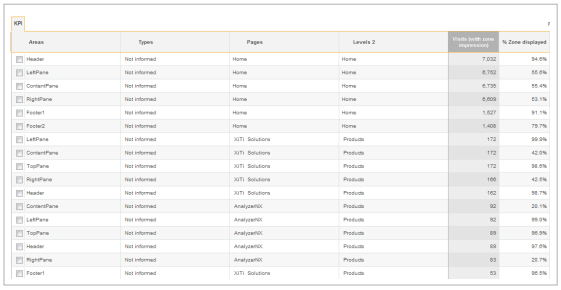


MACRO ANALYSIS VIEW: LIST MODE

The list mode, though undoubtedly less spectacular than the graphical modes, is still just as important. While the graphical modes focus on the elements of a page, providing a very accurate assessment, the list mode provides an overall view, for clicks as well as for zones, on all pages viewed together.

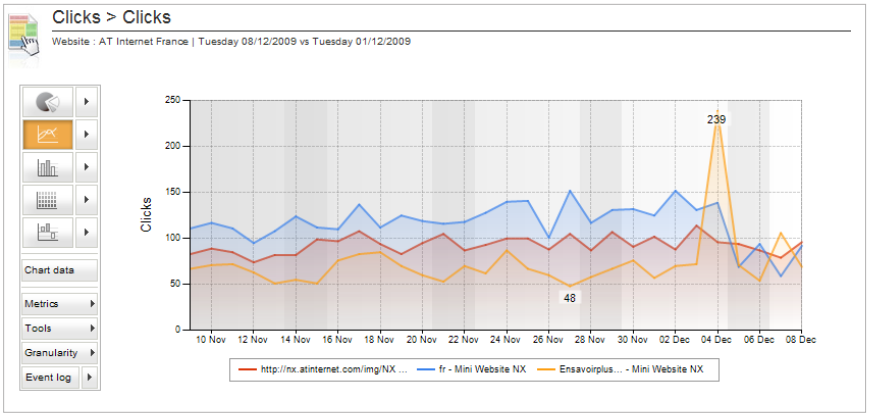
This approach highlights the strong points and also detects weak points that perhaps need improving throughout the entire site. The graphical modes can then be used for a detailed, page-by-page study.





When to use list mode

Clients can use the list mode to immediately detect any abnormal variations (peaks or troughs). This will then make it possible to move on to a complete analysis of the page or element concerned. List mode allows for an initial diagnostic that is very specific and can save a great deal of time.



HEATMAP MODE

The HeatMap view provides a graphical analysis of click impact, expressed in a range of colours, ranging from cold colours (blue) to hot colours (red).

With the HeatMap you can quickly identify the different elements which have been clicked the most, and using the colour code you can also spot any clicking differences on the page. This view is particularly advantageous for providing a general analysis of the page.

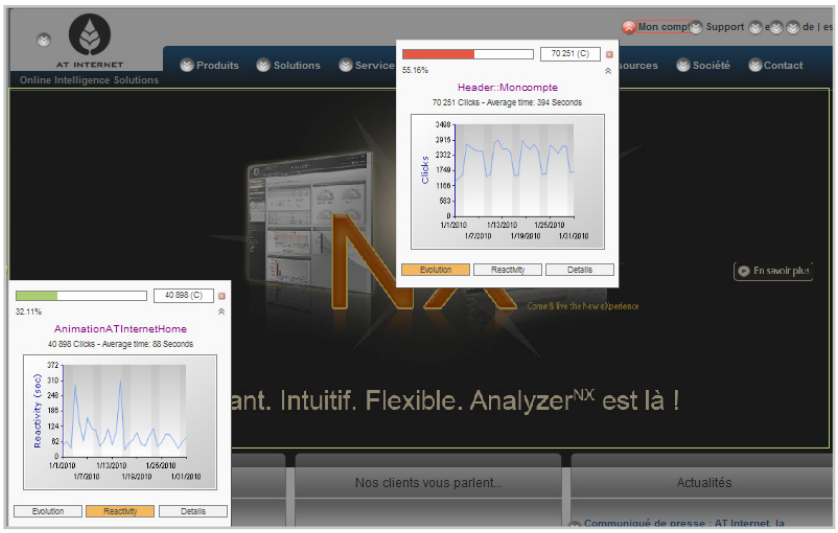
The chromatic circle and heat zones. By going in an anti-clockwise direction from blue (cold) to red (warm), we see that there is an increasing number of clicks.

This view will make it possible, for example, to test the permanent display of the shopping cart (this is the case for auchandirect.fr or officedepot.fr, according to the Benchmark Group study). Pages which have a permanently displayed “see cart” button should be compared with pages where the button appears over a test period.

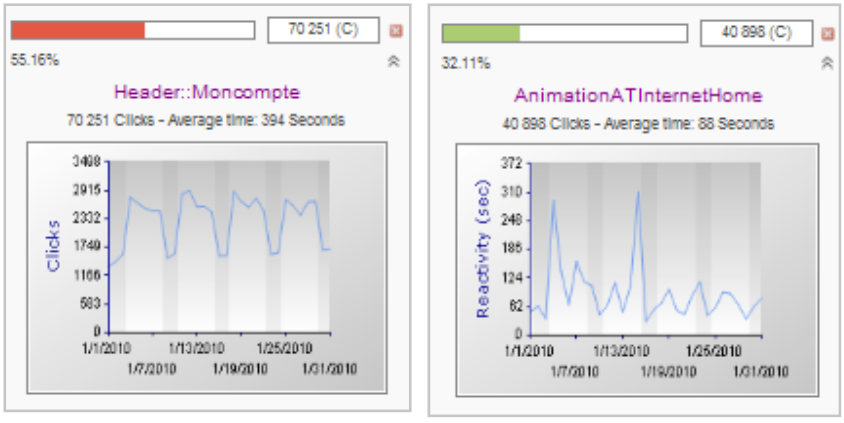
THE QUALITY OF INDIVIDUAL ELEMENTS: OVERLAY MODE

Overlay mode displays an information bar on the number of clicks and the percentage that these clicks represent, for each clickable element on a page.

With this information, it is possible to implement a graph zone that shows the change over a given period, as well as the response time: e.g. the more attractive the link (or message), the shorter the response time will be.



This allows for a highly targeted analysis of certain page elements, for example, a banner in which the content has changed several times over the period, a purchase incentive, a zone on the last articles viewed, or help bubbles.

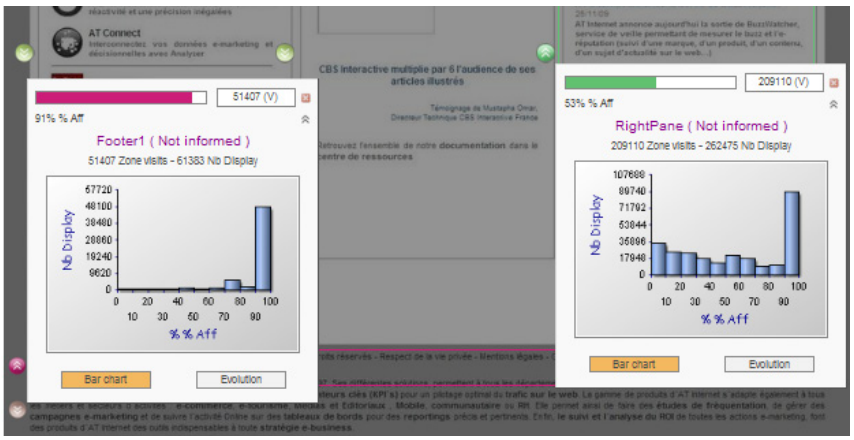


In the example opposite, we measure the week/weekend impact in "evolution" mode and we see a problem associated with response time on the 4th and 15th of the month: if it is a banner, this indicates that the creative work for these two days was not very persuasive and did not lead to many clicks being made.

ANALYSING PAGE ZONES

Dividing a page into zones (and subzones) will undoubtedly provide precious information on the performance of pages which have varied content. For example, the header zone and footer zone, a menu on the left, an editorial zone in the centre, an advertising display zone on the right, etc.

This zone-by-zone study offers additional clarification which makes it possible to reassign the most attractive zones to the most productive objects, based on strategic priorities.



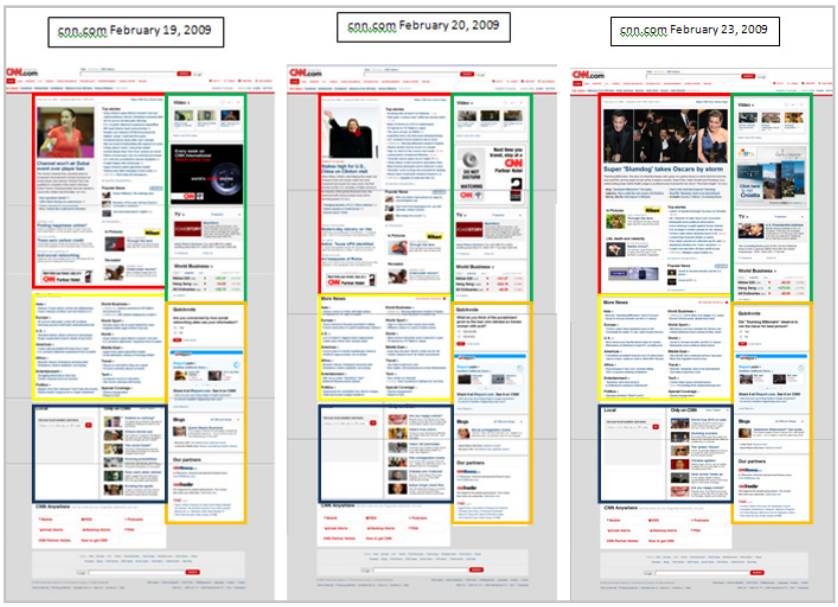
We can see from the example above that even if the footer zone (51 ,000 views and 61,000 displays) is viewed less than the zone on the right hand side of the page (209,000 views and 262,000 displays), more people display it in full 91% v 53%.

This detail shows us that almost all who view the footer view it in its entirety, whereas nearly 55% of those who view the right pane are not in full screen. 60% of full screen viewers (48,000 view the footer in full screen compared to 80,000 for the right pane) display the bottom of the page, compared to 3% (less than 100% of the footer is read compared to less than 100% of the right pane) for the others.

This is an indication that a “display in full screen” button might be a welcome addition.

OPTIMISING PRODUCTION: TEMPLATES

Using templates makes it possible to study a page's structure in whatever variation it might be displayed. For example, all datasheets are built using a single page template. Naturally, if the analysis for sheet 23 or sheet 145 can be obtained, it is then also possible to analyse the template. It is then possible to assess the structural zones which have strong click rates, regardless of the content.



This illustration shows the home page of cnn.com over a period of a few days. Here we see the importance of studying zones (coloured frames were added for clarity). We can also see the importance in having a template that translates the activity on the page irrespective of its successive content.

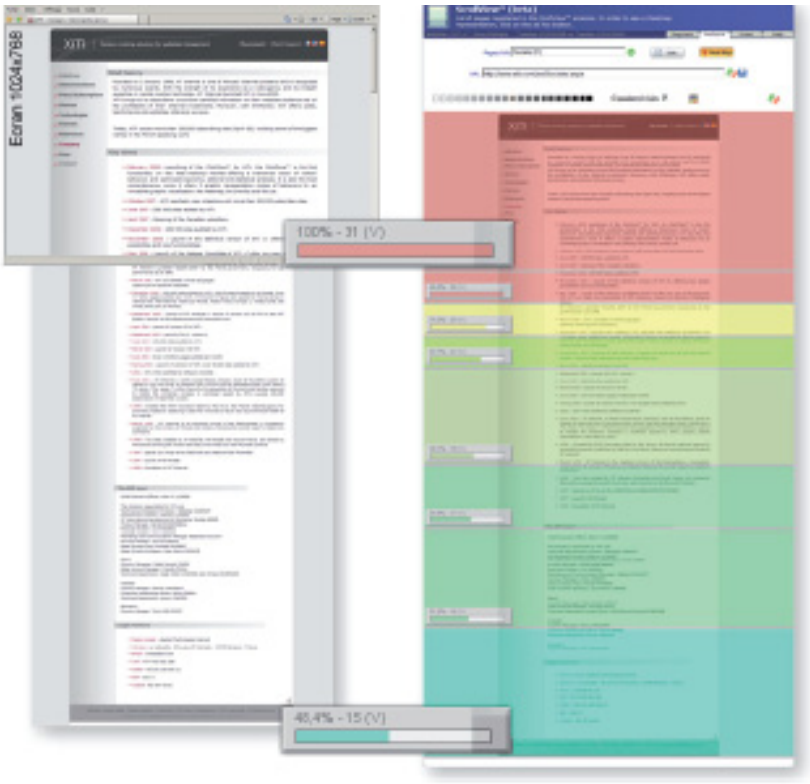
Studying the template over a suitable period of time makes it possible to determine the visibility and impact of each zone without depending on the many variations resulting from the different content (datasheets example) or over time (editorial content).

In order to place page zones on the page in the most advantageous area of a page, it is necessary to be able to measure the success of such zones irrespective of their (frequently changing) content.

USABILITY AND VERTICAL SCROLL: SCROLLVIEW®

The above mentioned Benchmark Group study shows that the Galeries Lafayette site displays one datasheet per page that requires no scrolling, unlike all of the other retailer sites studied.

In addition to the ClickZone® analysis, ScrollView® provides a study of the vertical page display: it is important to know if the whole page is viewed of if visitors leave before scrolling to the very bottom, and at what point their interest is lost? We know that content which is 'below the fold' is less likely to be seen, ScrollView® allows content managers to evidence and test this.



In the example opposite, the image on the left is a web page, with a zoom on the part which is displayed in the browser using a 1024x768 resolution screen.

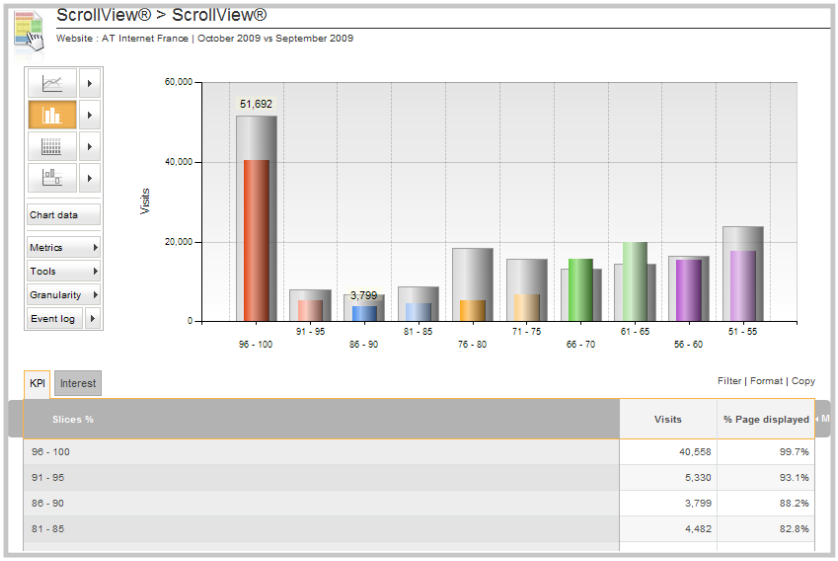
The image on the right, is a ScrollView® analysis of the page, which highlights the way in which the page is displayed (again by using the hot and cold colour codes).

LIST OF VERTICAL ZONES

As is the case with ClickZone®, list mode provides an overall view that helps identify the elements needing priority attention. List mode uses the same graph tools and filters as those available for ClickZone®.

Why does a particular zone show a strong increase, while another is in clear decline?

Have the contents been modified at all? Do they give visitors the information they expect?

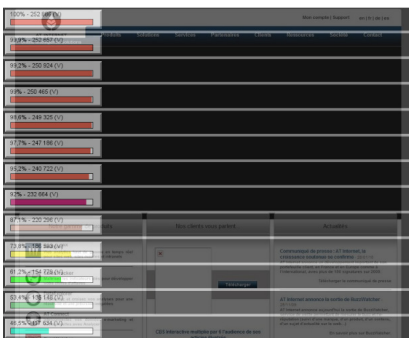


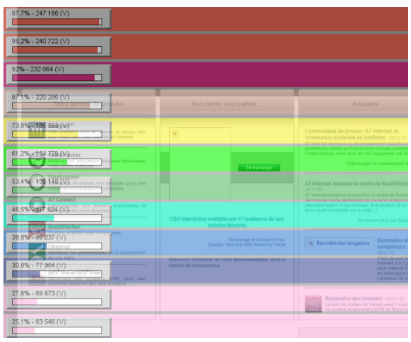
DISPLAY RATE

The HeatScale illustration (cumulative mode) is based on the same principle as HeatMap in ClickZone® (where cold to hot colours are applied to a screenshot). Here, however, we look at the vertical scroll divided into sections equivalent to 5% of the size of the page.

In cumulative mode we see the percentage and number of visits having displayed this zone (therefore beginning at 100% for the top of the page) as well as the display average attained for each section.

This graphical mode clearly highlights how well the page and main interest zones, as well as the less-attractive zones are performing. Webmasters can then manage their content to improve the performance of the site.

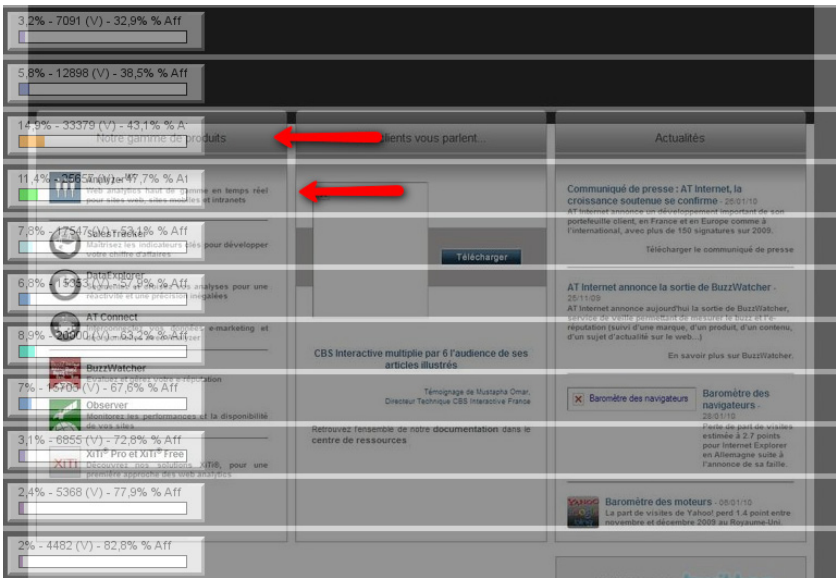




ABANDON RATE

In non-cumulative mode, the percentage and number of visits correspond to the visitors who have abandoned their visit on this section, making it possible to calculate the "abandon rate" per section.

In the example below, we can see that the highest abandon rates lie between the 40% and 45% point of the page (14.5% of abandons, in orange) and the 45% and 50% point of the page (12% of abandons).



Is this loss zone linked to a default display resolution (for example, 1024x768), or is content placed towards the bottom of the page, does it contain links that incite visitors to leave the page before completely viewing it? This raises a potential contradiction, is it illogical to offer a long page of content while encouraging visitors not to read the entire thing? Either the content is of varying levels of interest and should be shortened to what is needed, or it is relevant meaning that the incentive links could be moved to the bottom of the page or create two separate pages.

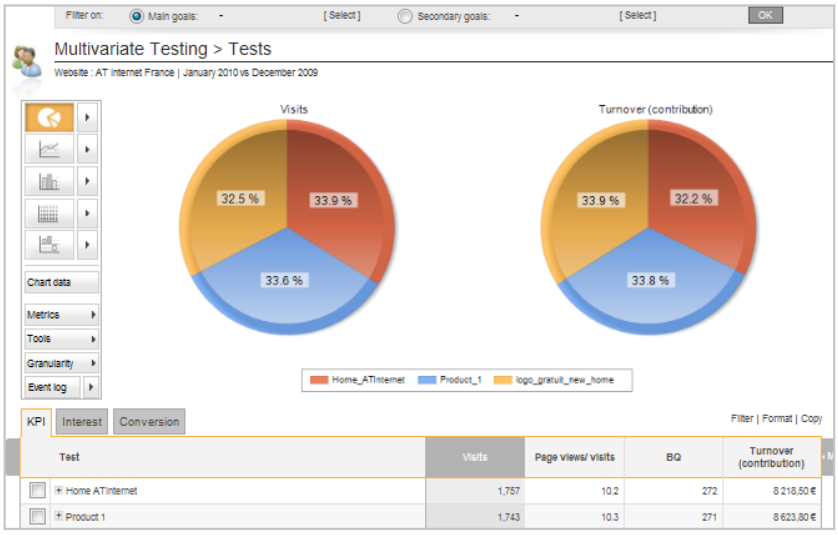
SIX EXAMPLES FOR ADVANCED USE

"WINDOW SIZE" ANALYSIS

ClickZone® for clickable elements and zone display, combined with ScrollView® for vertical scroll and "window size" analysis forms a very effective overall usability analysis, checking if certain content (an incentive link to a conversion, paid advert etc.) has specifically benefited from the expected visibility. An advertising insert (paid) placed on the right of a page, for example, may not bring the expected results due to the fact that a reduced-window display would make it invisible. This feature allows marketing directors to see if there are any discrepancies between the number of page openings and the actual number of times the advert was displayed.

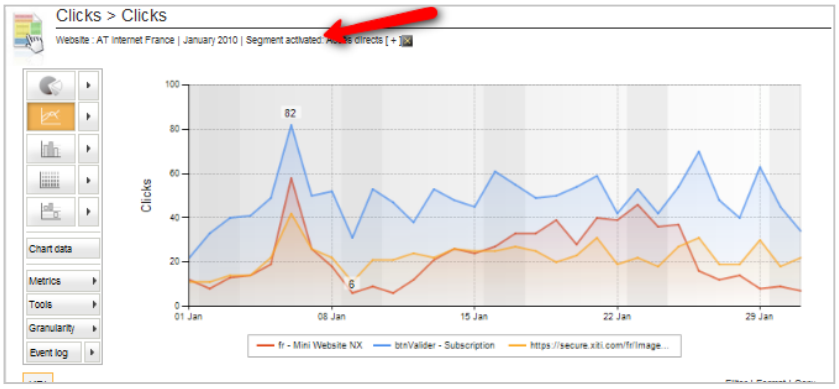
MV TESTING

Multivariate (MV) Testing tests (on several different variables) different suggested improvements which result from the usability analysis. This is particularly effective when used to improve landing pages, for example. MV Testing can be used to study many iterations, regrouped into different waves spread over several different tests.



SEGMENTATION (DATAEXPLORER)

The ClickZone® analysis on a visitor segment allows you to achieve effective behavioural targeting which will be a determining factor in displaying content that is dynamically adapted to visitor behaviour. Creating even the most complex segments is easy with DataExplorer (a simple drag and drop combining metrics and dimensions, Boolean operators (all pre-listed by category), making it possible to carry out the most complex cross-analyses).



COMPLEMENTARY WITH SALESTRACKER

It goes without saying that, for e-commerce business sites in particular, the usability of a landing page or a conversion funnel page will directly affect campaign R.O.I. and sales.

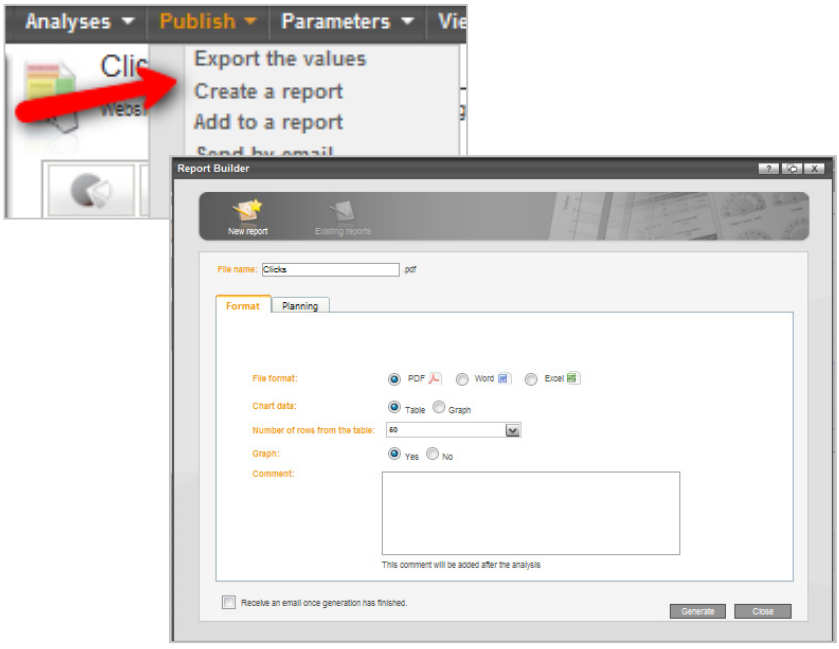
It is clear that a single interface on which it is possible to cross-analyse visitor and sales data in one place is essential.

ZONES: COMPARE TIME SPENT, VISIBILITY, AND CLICKS

For a given zone on a particular page it would be good to be able to compare performance in terms of clicks in relation to the display rate. With these two metrics in mind, it would also be useful to compare both of them with the average time spent on this zone during a visit. All of this information would then provide analytics users with three interactive diagnostic metrics which can be used to improve the pages of their site.

DATA EXPORT

The data export features including report builder, the API, the Excel add-in, and the fact that the data is "Office compatible", are all highly-productive assets supporting usability analysis, which in turn allows users to share information even with those outside of the organisation.



CONCLUSION

The usability study of an important page is the work of a specialist. It not only requires a scrupulous analysis of all clickable elements, but also an impeccable understanding of scroll use, page display, and the various zones which make up the page in question.

This would suffice if we were certain that all visits are made in full-screen mode, which is never the case. The reduced-window trap should therefore be avoided.

An MV (multivariate) testing tool is also needed to accept (or reject) page overhauls.

For the most demanding objectives, we also recommend adding behavioural targeting, which requires segmentation functions to modulate the contents for each profile involved, as is available in DataExplorer.

AT Internet's NX solutions provides you with all of this and more, it groups all of these different features together in a single, sophisticated and very intuitive interface - Digital Workspace[NX].

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AT INTERNET - LEADER IN ONLINE INTELLIGENCE® SYSTEMS

AT Internet is a leading Independent web and mobile analytics solution provider, operating in 9 countries internationally. AT Internet prides itself on its data integrity and customer centric approach.

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