

INTERACTION OF WEBVERTISING

A comparison between interactive web advertising approaches

by

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ABSTRACT

This paper attempts to structure the way we look at webvertisements in terms of interaction. Two different categorizations will be made: by interaction and by presentation. Each of the categories in the two categorizations will be briefly described and their interaction analyzed together with one or two examples. Afterwards a small experiment will show that these categories differ in click-through effectiveness. The conclusions are that different interaction categories of webvertisements can be identified and choosing a type will have effects on the click-through rate.

INTRODUCTION

Webvertising has been with use for over 10 years. For a long time webvertisements were little more than clickable banners on webpages. In recent years this has changed and webvertisements have become more and more interactive. This has had great impacts on how we see advertising in general, even newspaper ads are now commonly experimenting with more interaction by means of puzzles.

Since then the way we see the webadvertisement landscape has become less structured. Often web advertisements are categorized as being rich-media or non-rich-media. Statistics show rich media outperforming classical types in terms click-through rate (CTR) time and again. The question is ‘why?’. Rich-media is basically just a collection of file types, it doesn’t say much about the nature of the advertisement and the reason it is more effective.. This paper therefore takes a different approach to the way webvertisements are categorized: by interaction.

There are 2 different aspects concerning webadvertisement interactivity: presentation and the interaction of the webadvertisement itself. Presentation concerns the way the user is confronted with the advertisement. Interaction focuses on the way the advertisement itself interacts. Any arbitrary combination of these 2 categories can be made, but which types are available depends on which media type is used. The available choices will be described later.

The types of interaction and presentation are tested on differences in direct response (click-through) effectiveness in 2 small experiments. The experiments were done by measuring the click-through rate of the same banner presented through different mechanisms and by measuring the click-through rate of (more or less) the same banner with more interaction added.

The paper will start by describing the identified levels of interaction, followed by the presentation types. A description of media types, how the various mechanism can be applied, will be given followed by the experiment and its results. Finally the conclusions will be given.

PRESENTATION MECHANISMS

Users may be confronted with an advertisement in different ways. How they are confronted plays an important part on how they interact with it. They may be interrupted in their goal to visit the website, or the advertisement may be presented after the user completes his or her task.

The simplest way to present an advertisement is placing it together with the contents of the webpage.

IN-LINE

The most common form of presentation is simply putting the advertisement in the contents of the webpage. In most cases the advertisement appears as a banner on top or on the side of the webpage. Putting the advertisement between the text of the webpage has also become a common use.

Webmasters try to avoid this method. Advertisements are often flashy and colourful, disrupting the clear and tight design of most websites. Some webdesigners resort to making the advertisements themselves in an effort to stick to the style of the website. Text advertisements have a calmer nature and are rapidly growing in popularity as an alternative in-line advertisement.

The greatest risk of using in-line advertising is banner-blindness. Users tend to get used to certain shapes and colours and if they never find anything suitable in that part of the screen they start to ignore it without noticing. More or less the same reaction is given seeing the same banner or one of similar colour several times, the advertisement loses all effect. This is known as banner-burnout.

POP-UP

One of the most ferocious forms of webvertising is the pop-up ad. The advertisement is presented in a new (unasked-for) browser window as soon as the webpage is opened. The pop-up places itself 'in the way' and thus the user will have to pay some attention to it to be able to view the actual website.

Pop-ups seem to make use of an unlikely, yet very strong emotion: anger. The pop-up interrupts the user's task for no apparent reason. This way pop-ups cross the line of what users find acceptable. This has resulted in the so called pop-up blockers, programs that stop websites from opening certain types of windows on start-up. Since the first blockers appeared finding new loopholes has been a continuous strive by the pop-up advertisers.

Despite the fact that most modern browsers have a pop-up blocker built in, pop-ups remain one of the greatest annoyances to users on the internet.

POP-UNDER

Pop-unders are essentially the same as pop-ups: the advertisement is opened in a new (unasked-for) window. However it uses a much friendlier style. Pop-unders are opened without interrupting the user, avoiding annoyance. The user will see the advertisements once the browser window is closed.

Contrary to pop-ups, pop-unders have become more or less accepted. Major websites do not mind using this method as it allows them to advertise without distracting the user from their own products.

The required attention that is needed to close the window remains, but users are very much used to doing so. Closing pop-unders has become a ritual that is part ending an active web browsing session, to users.

POP-IN/OVERLAY

When normal pop-ups no longer seemed effective (partly due to blockers becoming widespread), advertisers started looking for new ways to get the attention of the user. Due to technological advances it was no longer necessary to let the browser itself create the pop-up window. Advertisers started making their own custom 'windows' by covering part of the webpage through common web technologies such as Macromedia Flash and JavaScript. Doing so also allowed advertisers to make custom close buttons. Where before, users had known exactly where the close button was located, they now had to look for it and thus pay more attention to the advertisement. Also these advertisements often cover the whole webpage forcing attention to them.

There are also other overlay interaction mechanisms. Some advertisements show a certain animation that covers the entire webpage and next it shrinks back to a certain part of the screen revealing the actual webpage. Never giving the user the chance to close the advertisement.

Friendlier types of overlay advertising don't cover the webpage as soon as it is loaded, but wait until a user himself pays attention to an (in-line) ad by holding the mouse over it. This interaction is different from the other two types of overlay webvertisements. Instead of punishing the user by interrupting his task, the user is rewarded for his attention, often with nice visual effects and more information. This is strongly related to the 'toy' interaction discussed in the next chapter.

PREFACE ADS

The preface advertisement is a webpage containing just one big advertisement. This webpage has to be viewed before the webpage the user wants to visit can be viewed. Most preface advertisements allow the user to skip the advertisement. Preface advertising is primarily focused on showing something to the user and producing clicks is not the main concern. As users are accustomed to this kind of advertising from TV and cinema (that don't even allow you to skip) it is not considered an unfriendly way of advertising.

ADVERTISEMENT INTERACTION

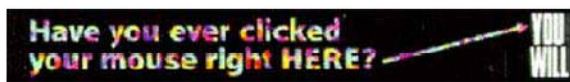
After a webadvertisement has been presented it may itself have different levels of interaction. Most advertisements follow the simple point-and-click scheme where the user is brought to another website by clicking the banner. More advanced interactions include forms integrated into advertisements, toy like advertisements and larger advertisements that are basically a videogame or virtual presentation.

POINT-AND-CLICK

The point-and-click interaction is common, classic and simple. The computer shows the advertisement, the user decides to respond to it, the user points at it, the user clicks it. Next the computer shows the webpage to which the advertisement is linked.

Much like regular advertisements in newspapers and magazines, the banner tries to attract the attention of the user through various methods. Symbols, colour and design play an important role. Choice of words (if any) plays a large role. Phrases like 'Click here' have been known to improve effectiveness.

What has become known as one of the first banners ever used this principle.



Source: AT&T, 1994

This advertisement was helped by the fact that the users probably never did click their mouse right there as they had never seen a webadvertisement before. A few years later this ad may not have worked at all as most advertisers were repeating the trick and users were getting used to it. As with any type of advertisement the effect of surprise is very important.

Also categorized as point-and-click is the animated advertisement. Although the interaction remains essentially the same, the computer side is initially far more active. Statistics show that more or less the same advertisements attract up to 40% more attention. The animation does have to be functional, preferably displaying the product. Video (advanced animation) scores over 100% higher.

FORMS

Sometimes forms are used in an advertisement. The main advantage is that it allows users to skip a step and directly subscribe / choose a category / etc within the advertisement. Filling in a form is one of the most common interactions with WIMP-based interfaces that we know. Very few users will not understand a form and most will fill it in with great ease. Although physically the interaction is relatively complex, it does not have great emotional advantages in contrast to the next 2 categories of advertisement interaction.

The advantage of form advertisements over regular advertisements isn't particularly high in terms of click-through rate, but the great advantage is that every click is also a 'sale'. Having to fill out a detailed form after clicking a banner which made great promises can be seen as a disappointment. When the form is within the advertisement the user knows exactly what to expect.

Below an example form advertisement is displayed. It can be used to subscribe to a mailing list for a baby shop.



Source: iLead & TrendyBaby.dk, 2006

The woman displayed on the advertisement 'says' she had a total of 8.000 kr. of discount. To get the same the user will have to fill in the 2 text fields and press the submit button. It becomes immediately to users what they have to do.

TOY

Toy advertisements show users that they can do something with the advertisement. The user may choose to answer to this call, usually by holding the mouse over the advertisement. The advertisement then gives certain feedback, ranging from direct response to the mouse or simply showing more information. Essentially this is a reward system, the user gets rewarded for paying attention and is usually treated to all sorts of visual jokes from the designers. Comforting the user is an important aspect of this type.

Advertisers do not want to let any sort of click go to waste. As soon as the user clicks the advertisement the 'fun' is over and the advertised webpage is opened. Sometimes the user might even be tricked into clicking by making parts of the advertisement seem more interactive.

A recent large scale webadvertisement campaign in the Netherlands featured a typical toy advertisement.



Source: Dutch Red Cross, 2005

The user was asked to shake the snow ball, a game we all know from when we were kids. As expected moving the mouse up and down and across the advertisement would throw up snow in the ball, but then something unexpected happened: everything collapsed. A text which asked the user to support victims of the Pakistan earthquakes in 2005 then appeared.

First our playful nature was called upon, then the game was taken away and when the text appears the advertisement tries to make the user feel guilty. He or she has just caused an

earthquake that destroyed a house. This was a most interesting ad using different emotions. It shows how much more effect than a 'regular' advertisement a toy advertisement can have. Although the red cross wouldn't say how effective the advertisement actually was (in terms of donations through the ad), as it appeared throughout all major Dutch websites it must have been a 'success'.

The very first toy advertisement was based on the very first videogame. Through images and JavaScript HP made a banner in which the user could play pong using the mouse.



Source: HP, 1996

This banner borders with the next category. Pong actually is a videogame, but in the case of this advertisement the interaction isn't quite of that order.

VIDEOGAME

Videogames can be seen as one of the most intense human-computer interactions. Despite the relatively simple means of communication (screen, speakers, keyboard, mouse), videogames can call forth very strong emotions. Exactly what advertisers are looking for.

Games do not have to a 'fun' game in particular, a virtual demonstration also belongs to this category. Game advertisements promote a product in an 'entertaining' way. Sometimes the goal of the advertisement may not even be to get a click-through, but simply to let the user get a good feeling with the product.

Clicking is part of the game. As clicking is an interaction to which users are accustomed, game advertisements will give extensive feedback after only a few clicks ('see how simple it is'). Complex interactions are always avoided.

Games are usually very big compared to regular advertisements and take time to 'play'. The image below is the FBTO healthcare shop, meant to advertise the new healthcare insurance of FBTO.



Source: FBTO, 2006

The user can scroll through a shop with a number of products, a shopping basket and other customers. When clicking another customer he or she explains his or her situation and a

healthcare insurance advice is given. When clicking a product a short explanation is given and it is added to the shopping basket. When the user is done the products in the basket can be ordered.

WEBVERTISING MEDIA

Modern browsers support a wide range of different formats. Different formats have different capabilities, effects and constraints.

TEXT ADVERTISEMENT

Text advertisements are as simple as can be. A clearly linked title, a short description and some extra information like the domain. At first this seemed like an unlikely way to advertise. Text doesn't draw a lot of attention, but when users started ignoring mainstream advertising advertisers started looking for 'new' ways.

The first company to distribute text webvertisements on a large scale was a company named Google. Using their technology they could provide relevant textual advertisements that got a surprisingly high click-through rate. Since then a large number of advertisers have followed, mostly search engines as they are capable of providing ads that are related to the webpage the advertisement is on.

Interaction levels:	point-and-click
Presentation mechanisms:	in-line, pop-in
Generally seen:	point-and-click + in-line

STATIC IMAGE

The most classic form of webvertising is the static banner. The static banner is an image displayed on screen.

Interaction levels:	point-and-click
Presentation mechanisms:	in-line, pop-up, pop-under, pop-in, preface
Generally seen:	point-and-click + in-line / pop-up / pop-under

ANIMATED IMAGE

Stepping beyond the limitations of a newspaper is easily done. For a long time browsers have supported animated images. For advertisers this serves two useful purposes: it attracted the user's attention more and more impressions could be put into a single ad.

The great disadvantage of using animated images was that they would quickly be far too big for a normal internet user. Having an advertisement that can not get through to all users will obviously be ineffective. Therefore most animated images are no more than 3 or 4 different images.

Interaction levels:	point-and-click
Presentation mechanisms:	in-line, pop-up, pop-under, pop-in, preface
Generally seen:	point-and-click + in-line / pop-under

HTML FORM

Sometimes an image or a text won't do the trick, especially when more interaction is required. Advertisers tend to follow trends in technology very easily. Using the capabilities of HTML was a step quickly taken. HTML has been very well suited for the creation of simple forms on websites

for a long time. Although it is not the only option, most form advertisements use HTML forms in addition to an image or text.

Interaction levels: point-and-click, form
Presentation mechanisms: in-line, pop-up, pop-under
Generally seen: form + pop-under

RICH-MEDIA

Webvertising is fairly volatile. It easily follows trends in technology. 'Flash' is relatively modern technology by Macromedia that has now become very widespread on various types of systems. It is a technology to put interactive mini-applications on websites. This opened a wide range of possibilities for advertisers.

The most used possibility is that of complex animation. The great technological advantage of Flash was that it did not define the output of an animation, but rather the definition.

Another feature of Flash is the ability to use audio and video. Especially to websites on video and gaming this provided the opportunity to show trailers on websites.

Some advertisements make use of JavaScript for interactivity. This technology has long been widely available, but the different interpretation by browsers made it an expensive production tool. Recently developers have embraced JavaScript under the collective noun AJAX. With more and more cheap options appearing the JavaScript based advertisements are beginning to appear. JavaScript doesn't have the multimedia capabilities of Flash but the much wider installed base is interesting for advertisers.

Interaction levels: point-and-click, form, toy, game
Presentation mechanisms: in-line, pop-up, pop-under, pop-in, preface
Generally seen: toy + in-line / pop-in

EFFECTIVENESS

To whether or not different categories have consistently different effectiveness in terms of direct response tests have been done. The environment in which the tests were done are not necessarily representative, but the primary purpose of the test is to see whether consistent differences between the described categories can be measured.

PRESENTATION EFFECTIVENESS TEST

The presentation mechanism of an advertisement is relatively independent. The exact same banner can be present through any of the mechanisms discussed earlier.

The look & feel of the banner should be somewhat neutral. To get as wide an audience as possible a testing-banner should not cover any specific topic, but rather a recognizable phrase or symbol. The obvious choice was the phrase 'Click here' which is commonly used for links on the web. The resulting banner is displayed below:



The banner that was used

The test was done on a website with 600-700 visitors per day. The website had never had any advertising before, therefore the initial click-through would probably be above average. As the banner is also not an advertisement seen elsewhere users could easily recognize it as a new feature. This is not a very big problem, the test should merely show whether or not the various categories have consistent effectiveness differences. The banner was shown when a visitor entered the website through one of the following mechanisms:

- in-line - on top of the page
- pop-up -
- pop-under -
- overlay - over the text surrounded by a white frame with a close button
- preface - blank page with a skip button

The in-line banner was placed on top, according to study this is the most effective location whereas for the other types the location is not very relevant. Also the other presentation mechanisms always make the banner clearly visible, the same strategy should therefore be used for in-line banners.

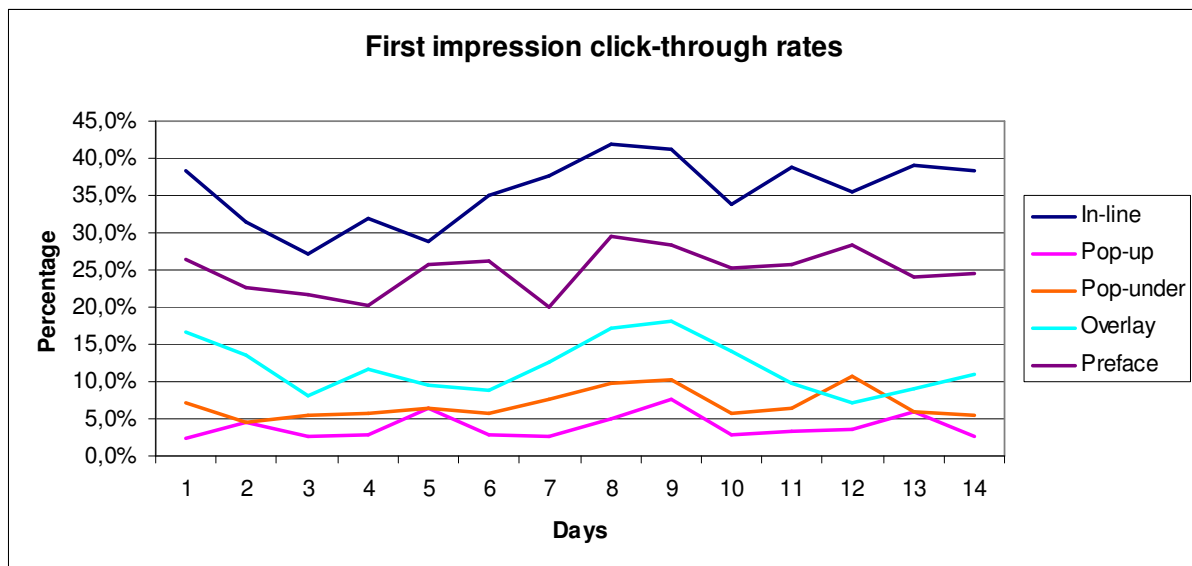
The choice of the displayed banner was not random, each banner was displayed an equal amount of times (users #1, #6, #11, etc got an in-line banner). The webpage to which the banner was linked was a blank page saying only "Thank you!".

In the first few days of the test some users managed to click the banner up to 20 times, possibly thinking there was a prize. This data was not very useful because the results were more or less the same for all presentation mechanisms. The experiment had to be modified. From then on every user would see the banner only once in the entire period. The experiment was too small to be able to measure relative decay of click-through rate when the banner is displayed again. The element of surprise plays too big a role in the first few days to get any useful data with respect to decay.

The test lasted 14 days, this made up for a total of 2536 unique visits. The results of the test are therefore based on a total of 2535 advertisement views or 507 views per type.

The data from the experiment is displayed in the graph below. Total click-through rate was around 20%. This is way above industry standard, but this effect was expected and has been predicted earlier.

The graph below shows what percentage of the users that got to see that specific type of presentation mechanism clicked it.



As is clearly visible pop-ups scored relatively low. This will partly be due to pop-up blockers, but the overlay advertisement wasn't particularly welcome either. Interrupting the user while his goal is in sight is apparently not a very effective method (in this situation). Preface did do relatively well despite its interruptions, but instead of truly stopping the user from reaching his or her goal it just inserts an extra step.

The main conclusion of this test is that most of the identified categories show a consistent difference with other categories, but pop-ups and pop-under do not show any relevant difference in terms of effectiveness. The combination of the two is therefore disputable, but their way of confronting the user nonetheless remains very different.

The other aspect that has to be measured is the effects of different interactivity categories.

INTERACTIVITY EFFECTIVENESS

The effect of more interaction in advertisements is difficult to measure through a short-term experiment. The reason for this is quite simple: as soon as more interaction is added the banner is actually different. The test will therefore only focus on the difference between a normal banner and a toy banner as other interaction levels such as a form or a game are not comparable.

In the toy advertisement the 'Click here' text moved around as soon as the mouse went over it disallowing and thereby challenging the user to click the text. The whole banner was still completely clickable otherwise this would have drastically influenced the outcome of the click-through rate.



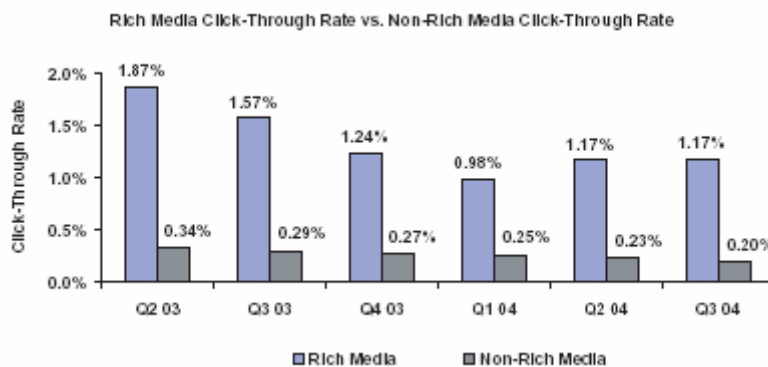
Example mouse-over, the actual position of the text may differ

The test was done with users who had not yet ‘participated’ in the presentation experiment and therefore had the same element of surprise. The testing pool was therefore considerably smaller as most of the visitors of the website are active members of the community on the website who return at least once every 1 or 2 weeks. Those visitors are also more likely to have interests in new ‘features’ and are therefore more likely to click the banner.

The same setup as the presentation experiment was used. The regular banner and the more interactive banner had an equal amount of views. The experiment ran for 7 days and the banner was presented in-line on top of the page as the previous experiment showed that this was the most relevant presentation mechanism.

The total amount of banner views over the period was 694. The point-and-click banner was clicked a total of 48 times (13.8%), the toy banner was clicked a total of 87 times (25%). Adding more interaction in this situation almost the effectiveness of the advertisement.

These results actually compare poorly against industry standards. The following graph shows the popularity of rich-media advertisements compared to that of static-image advertisement in the period 2003-2004.



Source: DoubleClick

Rich-media performs 4-6 times better and the initial decay over time has stabilized. As noticed before rich-media is no guarantee for more interaction, but there’s would be no reason for better results if the banners were merely a static point-and-click advertisement.

From this may be concluded that adding more interaction can have a positive effect on the click-through rate of an advertisement. How this relates and how this achieved are possible questions for further research.

CONCLUSION

The focus of the paper was to make a structural division of types of interaction in webvertisements. Two different categorizations have been made: presentation mechanism and interaction level.

A primary principle of webvertisement interaction is that of presentation. Part of the interaction between a user and a webvertisement is determined by the way it is presented. A number of presentation mechanisms can be identified: pop-up, pop-under, overlay, preface and in-line. The experiment has shown that most of these categories have consistent differences in effectiveness.

The webvertisements themselves may also have different types of interaction. Namely: point-and-click, form, toy and game. These levels indicate how much a user can do with an advertisement and how.

Webvertisement tests are very complicated. Even though gathering data is easy, getting more useful comparative data requires long and careful study. The presentation experiment only showed which type of presentation mechanism has the biggest surprise effect (which is nonetheless an important aspect). Also, it merely showed data from a specific audience at the beginning of 2006. The advertising landscape changes all the time.

On the topic of more interaction can be concluded that it generally has a positive effect on the effectiveness of the advertisement, but there is a lot of room for further research in this area. Possible future question are: How does interaction relate to effectiveness? What kind of interactions support effectiveness? Where is the limit to beneficial interactivity?

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