

## Interactive Advertising

### Interactive Advertising

Interactive Advertising is the use of interactive media to promote and/or influence the buying decisions of the consumer in an online and offline environment. Interactive advertising can utilise media such as the Internet, interactive television, mobile devices (WAP and SMS), as well as kiosk-based terminals.

Interactive advertising affords the marketer the ability to engage the consumer in a direct and personal way, enabling a sophisticated and dimensional dialogue, which can affect a potential customer's buying decisions particularly in an e-commerce environment.

Perhaps one of the most effective implementations of interactive advertising is so-called Viral marketing. This technique uses images, texts, web links, Flash animations, audio/video clips etc., passed from user to user chain letter-style, via email. A notable example of this is the Subservient Chicken, a campaign by Burger King to promote their new line of chicken sandwiches and the "Have It Your Way" campaign.

Interactive advertising is also assuming other avatars, such as online directories for brands. These directories presently perform a complementary role to conventional advertising, helping viewers recall and compare brands primarily seen on television. Response is mediated usually through forms and click-to-call technologies.

### Social media

Social media optimization (SMO) is a set of methods for generating publicity through social media, online communities and community websites. Methods of SMO include adding RSS feeds, adding a "Digg This" button, blogging and incorporating third party community functionalities like Flickr photo slides and galleries or YouTube videos. Social media optimization is a form of search engine marketing.

Social media optimization is in many ways connected as a technique to viral marketing where word of mouth is created not through friends or family but through the use of networking in social bookmarking, video and photo sharing websites. In a similar way the engagement with blogs achieves the same by sharing content through the use of RSS in the blogosphere and special blog search engines such as Technorati.

### Landing Page Optimization

Landing page optimization (LPO, also known as webpages optimization) is the process of improving a visitor's perception of a website by optimizing its content and appearance in order to make them more appealing to the target audiences, as measured by target goals such as conversion rate.

Multivariate landing page optimization (MVLPO) is landing page optimization based on an experimental design.

LPO can be achieved through targeting and experimentation.

### LPO based on targeting

There are three major types of LPO based on targeting:

- a) Associative content targeting (also called "rules-based optimization" or "passive targeting"): Modifies the content with relevance to the visitor's information based on the search criteria, source, geo-information of source traffic or other known generic parameters that can be used for explicit non-research based consumer segmentation.
- b) Predictive content targeting (also called "active targeting"): Adjusts the content by correlating any known information about the visitors (e.g., prior purchase behavior, personal demographic information, browsing patterns, etc.) to anticipated (desired) future actions based on predictive analytics.

## Interactive Advertising

- c) Consumer directed targeting (also called "social"): The content of the pages could be created using the relevance of publicly available information through a mechanism based on reviews, ratings, tagging, referrals, etc.

### LPO based on experimentation

There are two major types of LPO based on experimentation:

- Close-ended experimentation exposes consumers to various executions of landing pages and observes their behavior. At the end of the test, an optimal page is selected that permanently replaces the experimental pages. This page is usually the most efficient one in achieving target goals such as conversion rate, etc. It may be one of tested pages or a synthesized one from individual elements never tested together. The methods include simple A/B-split test, multivariate (conjoint) based, Taguchi, total experience testing, etc.
- Open-ended experimentation is similar to close-ended experimentation with ongoing dynamic adjustment of the page based on continuing experimentation.

This article covers in details only the approaches based on the experimentation. Experimentation based LPO can be achieved using the following most frequently used methodologies: A/B split test, multivariate LPO and total experience testing. The methodologies are applicable to both close-ended and open-ended types of experimentation.

### A/B testing

A/B testing (also called "A/B split test"), is a generic term for testing a limited set (usually 2 or 3) of pre-created executions of a web page without use of experimental design. The typical goal is to try, for example, three versions of the home page or product page or support FAQ page and see which version of the page works better. The outcome in A/B Testing is usually measured as click-thru to next page or conversion, etc. The testing can be conducted sequentially or in parallel. In sequential (the easiest to implement) execution the page executions are placed online one at a time for a specified period. Parallel execution ("split test") divides the traffic between the executions.

### Pros of doing A/B testing

1. Inexpensive since you will use your existing resources and tools
2. Simple – no heavy statistics involved

### Cons of doing A/B testing

- It is difficult to control all the external factors (campaigns, search traffic, press releases, seasonality) in sequential execution.
- The approach is very limited, and cannot give reliable answers for pages that combine multiple elements.

### MVLPO

MVLPO structurally handles a combination of multiple groups of elements (graphics, text, etc.) on the page. Each group comprises multiple executions (options). For example, a landing page may have n different options of the title, m variations of the featured picture, k options of the company logo, etc.

### Pros of doing Multivariate Testing

- It is the most reliable scientifically-based approach to understanding customers' minds and using that information to optimize their experience.

## Interactive Advertising

- It has evolved to become an easy-to-use approach in which not much IT involvement is needed. In many cases, a few lines of javascript on the page allows the remote servers of the vendors to control the changes, collect the data and analyze the results.
- It provides a foundation for a continuous learning experience.

### Cons of doing Multivariate Testing

- As with any quantitative consumer research, there is a danger of GIGO (garbage in, garbage out). You still need a clean pool of ideas that are sourced from known customer touchpoints or strategic business objectives.
- With MVLPO, you are usually optimizing one page at a time. Website experiences for most sites are complex multi-page affairs. For an e-commerce website it is typical for an entry to a successful purchase to be around 12 to 18 pages; for a support site even more pages.

### Total experience testing

Total experience testing (also called experience testing) is a new and evolving type of experiment based testing in which the entire site experience of the visitor is examined using technical capabilities of the site platform (e.g., ATG, Blue Martini, etc.).

Instead of actually creating multiple websites, the methodology uses the site platform to create several persistent experiences and monitors which one is preferred by the customers.

### Pros of doing experience testing

- The experiments reflect the total customer's experience, not just one page at a time.

### Cons of doing Experience Testing

- You need to have a website platform that supports experience testing (for example ATG supports this).
- It takes longer than the other two methodologies.

### Multivariate landing page optimization (MVLPO)

The first application of an experimental design to website optimization was done by Moskowitz Jacobs Inc. in 1998 in a simulation demo-project for Lego website (Denmark). MVLPO did not become a mainstream approach until 2003-2004.

### Execution modes

MVLPO can be executed in a live (production) environment (e.g. Omniture Test and Target, Google website optimizer, Widemile.com, Optimost.com, etc.) or through a Market Research Survey / Simulation (e.g., StyleMap.NET).

### Live environment MVLPO execution

In live environment MVLPO execution, a special tool makes dynamic changes to the web site, so the visitors are directed to different executions of landing pages created according to an [experimental design]. The system keeps track of the visitors and their behavior (including their conversion rate, time spent on the page, etc.) and with sufficient data accumulated, estimates the impact of individual components on the target measurement (e.g., conversion rate).

### Pros of live environment MVLPO execution

## Interactive Advertising

- This approach is very reliable because it tests the effect of variations as a real life experience, generally transparent to the visitors.
- It has evolved to a relatively simple and inexpensive to execute approach (e.g., Google Optimizer).

### Cons of live environment MVLPO execution (applicable mostly to the tools prior to Google Optimizer)

- High cost
- Complexity involved in modifying a production-level website
- Long time it may take to achieve statistically reliable data caused by variations in the amount of traffic, which generates the data necessary for the decision
- This approach may not be appropriate for low traffic / high importance websites when the site administrators do not want to lose any potential customers.

Many of these drawbacks are reduced or eliminated with the introduction of the Google Website Optimizer – a free DIY MVLPO tool that made the process more democratic and available to the website administrators directly.

### Simulation (survey) based MVLPO

A simulation (survey) based MVLPO is built on advanced market research techniques. In the research phase, the respondents are directed to a survey, which presents them with a set of experimentally designed combinations of the landing page executions. The respondents rate each execution (screen) on a rating question (e.g., purchase intent). At the end of the study, regression model(s) are created (either individual or for the total panel). The outcome relates the presence/absence of the elements in the different landing page executions to the respondents' ratings and can be used to synthesize new pages as combinations of the top-scored elements optimized for subgroups, segments, with or without interactions.

### Pros of the Simulation approach

- Much faster and easier to prepare and execute (in many cases) compared to the live environment optimization
- It works for low traffic websites
- Usually produces more robust and rich data because of a higher control of the design.

### Cons of the Simulation approach

- Possible bias of a simulated environment as opposed to a live one
- A necessity to recruit and optionally incentivise the respondents.

MVLPO paradigm is based on an experimental design (e.g., conjoint analysis, Taguchi methods, etc.) which tests structured combination of elements. Some vendors use full factorial approach (e.g., Google Optimizer that tests all possible combinations of elements). This approach requires very large sample sizes (typically, many thousands) to achieve statistical importance. Fractional designs typically used in simulation environments require the testing of small subsets of possible combinations. Some critics of the approach raise the question of possible interactions between the elements of the web pages and the inability of most fractional designs to address the issue.

To resolve these limitations, an advanced simulation method based on the Rule Developing Experimentation paradigm (RDE) has been introduced. RDE creates individual models for each respondent, discovers any and all synergies and suppressions between the elements, uncovers attitudinal segmentation, and allows for databasing across tests and over time).