

UDC 005

A/B TESTING METHODS***PAVEL HRAKOVICH, SERGEI SURTO*****Polotsk State University, Belarus**

A / B testing is a powerful marketing tool for increasing the efficiency of the Internet resource. With the help of A / B tests the conversion of page guidance can be increased, optimal ad networks can be increased, and search quality can be improved.

In web analytics, A/B testing is a controlled experiment with two options, A and B. It is a form of statistical hypothesis testing or "two-sample hypothesis testing" as termed in the field of statistics. In online settings, such as web design, the goal of A/B testing is to identify changes to web pages that increase or maximize an outcome of interest. Formally the current web page is associated with the null hypothesis. A/B testing is a way to compare two versions of a single variable typically by testing a subject's response to the variable A against the variable B and determining which of the two variables is more effective [1].

A/B testing is used to consider how small differences in a marketing campaign might influence customer behaviour. This might be the title of a newsletter or an email, the text for a banner advert, the text on a call-to-action button or the layout of a web page. The idea is to run two variations of the campaign with a controlled group of customers to see which version is the most successful. You can repeat the tests numerous times to fine-tune your content and improve the effectiveness of your marketing communication.

When setting up a test you first need to think about all the metrics of your business and how you define the success of your marketing campaigns. This might be the number of sales, click-throughs, sign-ups, downloads etc. You then set up your marketing campaign with two variables (version A and version B). Don't be tempted to vary more than one thing at a time or you will never know which one has made the difference. To measure which is better you trial them simultaneously, in identical circumstances, and select the more successful version for use.

If you are testing a web site page use the existing version as the control point and set up a second for the test. Then split your traffic equally between the two. If you don't have the technical knowledge to do this yourself there are a number of free tools on the market that will help you, for example Google Analytics Content Experiments. There are also plenty of organisations specialising in conversion rate optimisation (CRO) that will run your A/B testing for you and make recommendations for your marketing.

If you are sending out an email or a newsletter you will need to put some effort in advance to prepare your test groups. The two groups need to be identical – or as similar as possible. Firstly, you will need an equal number of contacts and, ideally, you will want to have equal numbers of men and women. If you have the data available, consider age ranges, geographic locations and any other factors that might contribute. Choose a small percentage of your database to run the test, maybe 10%, and make sure you send them letters simultaneously so you minimise any variance [2].

You will also need to determine up front how long you are going to run the test for and how many responses you need to count the results. Use past data as a guide but be careful not to cut it off too soon or to run it for too long as this may mean other factors have affected the result. If you are testing low volumes you will need to determine for which period you can realistically wait and whether the test result will be reliable.

A/B tests most commonly apply the same variant (e.g., user interface element) with the equal probability to all users. However, in some circumstances, responses to variants may be heterogeneous. That is, while the variant A might have a higher response rate overall, the variant B may have an even higher response rate within a specific segment of the customer base [3].

Many companies use the "designed experiment" approach to making marketing decisions with the expectation that relevant sample results can improve positive conversion results. It is an increasingly common practice as the tools and expertise grows in this area. There are many A/B testing case studies which show that the practice of testing is increasingly becoming more popular with small and medium-sized businesses as well [4].

REFERENCES

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