

EXECUTIVE SUMMARY

Users Behavior during the search – Analysis

Background

This analysis was done for the general purpose of helping the Discovery Team understand how users behave regarding their searches on the platform and what specific actions they tend to take during the time they spend on the page. The study was carried out considering the data of eight days, starting on 03-01-2016 and ending on 03-08-2016, and evaluating two groups of users, 'Group A' and 'Group B'. During this period, a total of 136234 searches were performed and 40107 pages were visited from these searches.

Analysis Focus

For this review, the Discovery Team was specifically interested in looking at two metrics:

1. Clickthrough Rate: the proportion of search sessions where the user clicked on one of the results displayed.
2. Zero Results Rate: the proportion of searches that yielded 0 results.

Some other metrics and actions evaluated in the analysis are the searches and pages visited from the searches, the search results that people tend to try first and the duration of the sessions.

Methodology

The analysis was carried out following the questions, priorities and concerns of the Discovery Team, considering one task at a time, however its results can be divided into two sections for a better understanding:

1. Monitoring of Main Metrics: the performance of the Clickthrough Rate and the Zero Results Rate, were analyzed by groups and by day to understand their trends and patterns.
2. Evaluation of Secondary Metrics: The other metrics were analyzed with the aim of understanding both their individual behavior and the relationship between them.

Main Insights

1. The Daily Overall Clickthrough Rate was 0.39 which seems like a low ratio; however, when considering the groups, we can see that Group_A performed considerably better (0.67) and consistently over the days. On the other hand, the low Group_B ratio (0.18) had a negative impact on the general metric, despite having increased in recent days.
2. The Daily Overall Zero Results was 0.18 and had a similar performance in both groups, with the ratio of Group_B slightly higher due to a large increase recorded on days 05 and 06.
3. Neither the number of searches, nor the pages visited nor the search results determine the duration of a session or vice versa. Only the number of pages visited showed any relationship to session duration, however, the longer the session, the weaker the correlation with visits and other metrics.
4. More than 90% of the sessions can be grouped by their duration into three groups: Those that end in 10 seconds or less, those that last around a minute and those that remain active for around an hour.
5. The number of visits is also not correlated with the number of searches or with the number of results displayed. In 65% of the time the user visited at least one page, the user clicked on the first search result. People actually tend to visit the results in the order that they appear.

Final thoughts and next steps

In general, Group A performs better in the main metrics evaluated during the eight days monitored. We will have to investigate the reasons for Group_B's poor performance. Having detected the three groups of sessions (according to its duration) it will be interesting to confirm if there is any link between them and the two main groups evaluated (A and B). Since pageviews are the goal of search, the focus should not be on having longer sessions, or displaying more search results, but on optimizing rankings to display the best products in the top positions.