

BITS F364- Assignment Report

Part-B

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Abstract

In this report, we attempt to summarize our findings from the user experiments we ran on e-commerce websites flipkart.com and snapdeal.com. We ran tests and tried to judge the ease of use of these websites using parameters like total number of clicks, number of times the user removes a product from cart and number of times a user clicks on the cancel button. Finally, we analyse our observations.

Methodology

1. We set up the environment to start recording user behaviour, making one project for Flipkart and one of Snapdeal. For each url, we ran tests with two kinds of users, a relatively inexperienced and an experienced user.
2. After observing the users, we decided what parameters could be used to indicate that the user got lost or confused while navigating. Then, we identified the commands that the Selenium IDE generated for these actions. We came up with three parameters-
 - a. Number of times the user clicked on the site logo (top left corner) to start afresh
 - b. Number of times the user had to remove an item from cart.
 - c. Number of times the user canceled an operation.
3. Apart from these, we also counted the total number of clicks it took a user to add a product to their cart.
4. To combine all these parameters and present them in an observable format, we piped commands and these parameters into a text file.

To run the script, use the command: *python3 analyse_session.py*

Observations

Some things to note here,

- We weren't able to capture the go back button and the reload button on the web browser as the Selenium IDE extension doesn't capture it on both Firefox and Chrome.
- Snapdeal doesn't provide the user with a cancel button to stop the "remove from cart" operation while flipkart does.

- Using remove from cart as a metric does come with the possibility that the user just changed their mind in a general scenario. However, in our case, this metric works as we had asked each user to add the book “The Design of Everyday Things” to their cart.
1. **Total clicks:** The general increase in clicks for different kinds of users was easy to notice. While an expert user clicked 3 times on Snapdeal to add the book to their cart, an inexperienced user took 21 clicks. For Flipkart, an expert user clicked 4 times to add the book to their cart, while an inexperienced user took 11 clicks
 2. **Home Button Redirects:** on flipkart, the inexperienced user started afresh 1 time and 0 times on Snapdeal. For the experienced user, we found that it was 0 for both websites.
 3. **Remove from Cart Action:** On snapdeal, the inexperienced user clicked remove from cart once and once on Flipkart as well.
 4. **Cancel Operation:** this action was done 0 times in all cases for both the websites.

Some other things we observed were-

1. Total time taken to add a product to cart was much longer for inexperienced users. This was to be expected as their use of the website was quite infrequent as compared to the other kind of users.
2. The number of mouseOver and mouseOut commands generated were also significantly more for inexperienced users. In general, the motion triggered drop down menus (which are captured by the above two commands) were quite obstructive and inhibited how all users navigated the website.
3. Sometimes a lag in the animation of the drop down menu led to wrong clicks by the user and the user had to backtrack their actions using the go back button on the browser. This wasn't captured by the Selenium IDE extension, but was observable.
4. Users were also confused by the sponsored/featured content and this caused misclicks as well.

Usability

Through our testing we found that both the websites were quite similar in design. The dynamic menu popping up while navigating the website was an issue on both websites. Although, we did find that Snapdeal's menu was on the left extreme and was unintentionally triggered much less as compared to Flipkart, where it was positioned on the top because of which it happened more frequently. A shortcoming of Snapdeal was that there was no confirmation for the “remove from cart” action. Additionally, the product we searched for was way further down the list in case of Snapdeal and the page was littered with featured products (this could just be our particular case as well). For flipkart, the add to cart button's placement would have been better if it were on the right side as the user selects things like quantity and size on the right side and looks for the button over there.