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**EVALUATION OF QUALITY WEB SITES FOR EXAMPLE INTERNET SHOP
AND CORPORATE SITE USING A UNIVERSAL SCHEME OF TESTING****DIANA POPKOVA, OKSANA GOLUBEVA, TATYANA CHERNYAK**
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The complexity of the website usability evaluation of the quality has been considered. Basic functions of the websites, and also the elements which are subject to tests are selected. The universal scheme for automated testing of web sites on usability indicators has been represented.

The assessment complexity of the web sites quality is in network users' variety of tastes and preferences. Nationality, geography, religion, accepted standards, subjective opinion: all this prevents from creating a universal scheme of process automation testing on usability indicators.

Developing the interfaces the term *usability* means general concept of convenience while using the software, logicity and simplicity in layout of controls [1]. Let's give the definition of this concept as a measure of quality of the user experience gained in case of interaction with web site.

Any website, whether it is the corporate website or an e-commerce shop, has certain tasks which can be divided into screens, each screen on units to subject units to testing.

A corporate website is the website - directory with the emphasis on the corporate style of the company [2]. The corporate website which is aimed at the successful development of the company includes the following elements: unique design, corporate style, management system website, call back, slide-show, location map, directory, mail.

Let's select basic functions for the corporate websites:

1. The main information about the company view.
2. Browsing the list of company's services.
3. Getting all possible contacts of the company.
4. Availability of service or product reviews\feedback [3].

An Internet shop – site trading in products by means of the Internet [4]. For successful functioning it must contain such sections as "About us", "The directory of goods", "Basket", "News", "Responses", "Contacts" and features in the form of unique design, management system, modules of a call back and slide-show, a component of online store.

The basic functions of the Internet shops:

1. Search for the right product.
2. Viewing the product.
3. Product purchase.
4. Sell screens (promotions, discounts, etc.) [5].

According to the listed functions and requirements certain pages are selected, for example, the purchase of the product or description of the company.

Having identified main pages, we will consider the blocks that will be tested. Data entry form when paying, a block with a description of competitive advantages, communication with social networks, menu, navigation, etc.

Let's consider basic elements which need to be tested: typographics, compatibility of colors, adaptivity to mobile screens, load time speed of the page, a semantic annotation (tel, mailto), existence of pictures in high resolution (in the description of goods).

As the tool for automation testing we will select WebDriver. It represents the browser driver that is the program library which doesn't have the user interface which allows other programs to interact with the browser, to control his behavior, to obtain data from the browser and to force the browser to execute different commands. WebDriver is suitable for several browsers was selected, has the specification for control of the browser, are a part a set of libraries in several programming languages [6].

Let's consider a usability element – ease of use. Auxiliary logic blocks are usually entered. For example, similar goods, button of back coupling, etc. These units simplify operation with web sites, but badly give in to test automation process.

Let's select the logic blocks (optional) that improve the quality:

- "Similar goods" (figure 1 point a).
- "Postpone on later" (figure 1 point b).
- The presence of "breadcrumbs" in the catalog (figure 1 point c).
- Callback button (figure 1 point e).

ITC, Electronics, Programming

- "Online consultant" (figure 1 point f).
- Possibility to compare products (figure 1 point g).
- Possibility to navigate quickly to the information on payment methods and delivery options (figure 1 point g).
- Possibility to leave feedback at the site, etc.

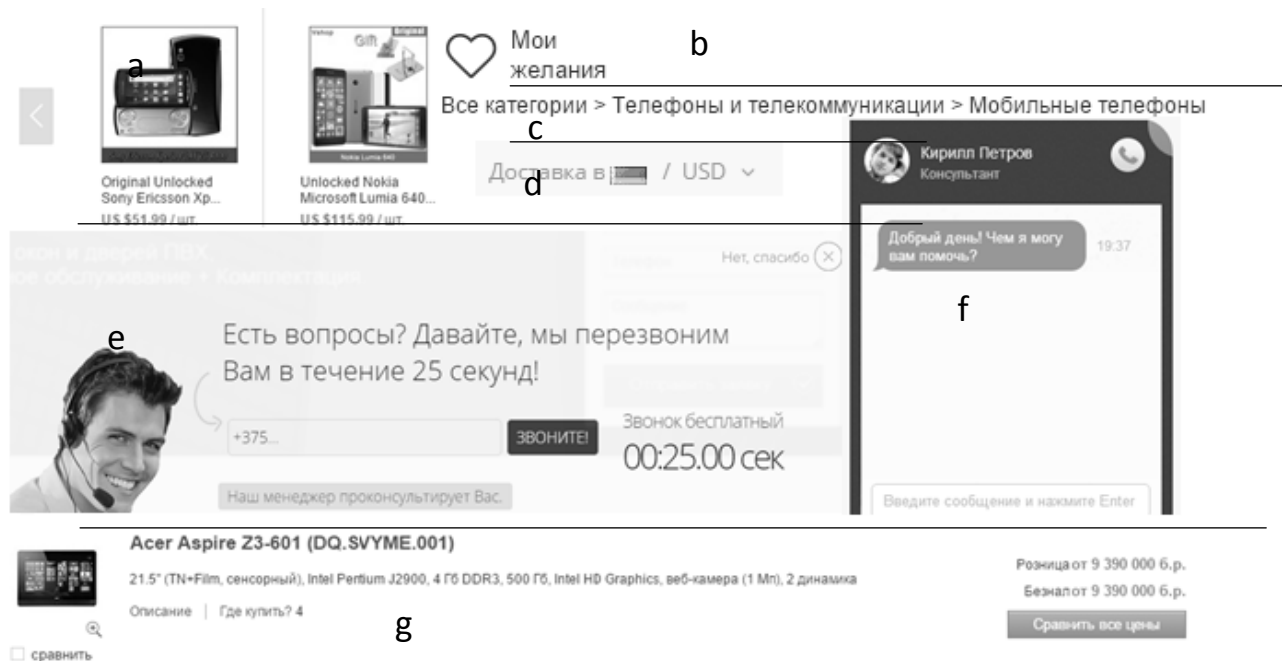


Fig. 1. Additional logic blocks

Let's develop the universal scheme of process automated testing. To improve the execution quality of tests we will turn on the main and additional units in process. In order to do that we need to involve the tester.

Let's divide the testing procedure into 3 stages.

1. Phase of manual testing of the functional pages of the site. The task is verification of presence of the main and auxiliary units. We will organize the execution process of testing in the form of installation of a tag about passing of test by the tester. The coefficient of quality of the first stage will be result.

2. Process of automated testing. WebDriver uses a script which contains a command set in a certain programming language for the browser. The tester develops a test set for each unit and transfers by parameter, input data in the form of the selector of the tested elements in WebDriver [7]. The coefficient of quality of the second stage will be the result.

3. Automated testing with of third-party means. The following assistants were selected: service of check contrast range (<http://www.checkmycolours.com/>), service of check readability of the text (<http://readable.com/>), service of check load time speed, adaptivity and convenience of the website (<https://developers.google.com/speed/>), service of check unique flowers and type sizes (<http://cssstats.com/>). At this stage we test the website entirely with attraction of third-party decisions. The coefficient quality of the third stage will be the result.

Thus, the provided scheme of assessment is the universal and more flexible. Further, taking into account three coefficients received earlier it is possible to calculate total assessment of quality.

The universal scheme of process automation testing, from the point of view a usability, looks as follows:

1. Receiving the application for testing.
2. Passing the request to the tester.
3. Marking the site on test pages, identification of blocks, preparing selectors.
4. Setting WebDriver tests for testing the selected blocks.
5. Manual testing of the main pages by the tester.
6. The tester starts the automated testing.
7. The tester starts testing with third-party tools.
8. Receive the detailed report with recommendations.
9. Transmission of the report to the user.

Basic functions of the websites are defined, units and elements for conducting testing are selected. Complexity of process of test automation on usability that web sites have no uniform structure and directivity. Each website has characteristic distinctive features only for it. The universal scheme automation of process testing of a usability sites is developed.

REFERENCES

1. Юзабилити – Википедия [Электронный ресурс]. – Режим доступа: <http://ru.wikipedia.org/wiki/Юзабилити>. – Дата доступа: 20.04.2016.
2. Корпоративный сайт [Электронный ресурс]. – Режим доступа: <http://www.aliva.by/korporativnyj-sajt.html>. – Дата доступа: 29.04.2016.
3. Функции корпоративного сайта [Электронный ресурс]. – Режим доступа: <http://www.analysaita.ru/funkcii-korporativnogo-sajta/>. – Дата доступа: 29.04.2016.
4. Интернет-магазин – Википедия [Электронный ресурс]. – Режим доступа: <https://ru.wikipedia.org/wiki/Интернет-магазин>. – Дата доступа: 29.04.2016.
5. Функции интернет-магазина [Электронный ресурс]. – Режим доступа: <http://www.itsait.com/statia/65-funkcii-i-magazina>. – Дата доступа: 29.04.2016.
6. Selenium WebDriver [Электронный ресурс]. – Режим доступа: <http://seleniumhq.org/projects/webdriver>. – Дата доступа: 03.05.2016.
7. Что такое Selenium WebDriver [Электронный ресурс]. – Режим доступа: <http://habrahabr.ru/post/152971/>. – Дата доступа: 03.05.2016.