

Analysis of E-Commerce Testing and Shopping Carts

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ABSTRACT:

Commerce is a communicative transaction between two parties playing very familiar roles: buyer and seller. For commerce to occur, somebody must do the selling, and somebody must do the buying, and these two some bodies must share a basic understanding of how the transaction is generally supposed to flow. E-commerce web sites can't simply make products available to be bought; these sites must hold up their part of role-playing the commerce transaction. Most people have an understanding of commerce based on their experience as shoppers and buyers, and they bring this experience with them when they start shopping online. In order to meet the user's needs, then, we must understand the typical user's experience of traditional commerce. Most problems with commerce sites are due to misunderstandings on the part of the site creators about how users understand the structure and elements of typical commerce transactions. Users have formed schemas to understand commerce, but commerce sites routinely ignore these schemas. Considering the newness of the internet and World Wide Web, it's safe to say that nearly everyone who has purchased online gained their understanding of commerce offline. "Dirt-side" commerce transactions have structural, schematic, and semantic orders that don't fully map to the different medium of the web, and it's this gap in mapping that causes the problems users experience trying to shop online, whether the problems stem directly from usability flaws or unmet expectations.

KEY WORDS: E-commerce, routinely

INTRODUCTION:

Electronic commerce, commonly known as e-commerce or E-commerce, consists of the buying and selling of products or services over electronic systems such as the Internet and other computer networks. The amount of trade conducted electronically has grown dramatically since the spread of the Internet. A wide variety of commerce is conducted in this way, spurring and drawing on innovations in electronic funds transfer, supply chain management, Internet marketing, online transaction processing, electronic data interchange (EDI), automated inventory management systems, and automated data collection systems. Modern electronic commerce typically uses the World Wide Web at least at some point in the transaction's lifecycle, although it can encompass a wider range of technologies such as e-mail as well. A small percentage of electronic commerce is conducted entirely electronically for "virtual" items such as access to premium content on a website, but most electronic commerce involves the transportation of physical items in some way. Online retailers are sometimes known as e-tailors and online retail is known as e-tail. E-commerce or electronic commerce is generally considered to be the sales aspect of e-business.

REVIEW OF LITERATURE:

The history of ecommerce shopping carts began immediately after the World Wide Web, or WWW, became a major medium to communicate information around the world. Ecommerce shopping-cart applications allow consumers to buy goods or services directly over the internet using a web browser. This online shopping evokes the business-to-consumer (B2C) process where a consumer buys directly from the business. The process where a business buys from another business is called a business-to-business (B2B) process.

The best examples of shopping cart applications using B2B process are eBay and Amazon, both of which were launched in 1995. At present, most users of these online shopping-cart applications are people who have higher levels of education, have exposure to technological advancements, and are in a better income group. Such users develop a positive attitude towards these convenient shopping techniques. Bigne, Enrique. (2005) studied in December 2011, Equation Research surveyed 1,500 online shoppers and found that 87% of tablet owners made online transactions during the early Christmas shopping season.

Building a new successful shopping cart is simple because of high competition in the market, and the designer of a shopping-cart application must consider the information load, complexity, and novelty. Falk, Louis K., Sockel, Hy, and Chen, Kuanchin. (2005) complexity refers to the number of features available on the shopping cart and the levels of marketing, whereas novelty involves the unexpected or unfamiliar aspects of the site. A designer must also consider the consumers' needs and expectations. A user- friendly design is very critical to the success of any shopping-cart application because, unlike physical stores, consumers at online stores come from all ages, genders, and cultures. Elliot, Steve, and Fowell, Sue. (2000) Logistics clearly says that, to have a successful and profitable online shopping application, businesses have to spend a significant amount of time and money for designing, developing, testing, and maintaining the application. Apart from the high-class design and user interface, a good practice needs to be done to provide quality customer service.

A typical shopping cart should contain certain features such as adding items to the cart and checking out those items using the available payment methods. Most shopping-cart applications are implemented using HTTP cookies or query strings, and an HTML setup is required to install the shopping cart on the servers that ultimately hosts the site on the internet. Most of these server-based applications require data related to the items added in the shopping cart to be kept in a session object which can be accessed later and manipulated dynamically because the users can add or remove one or more items from the cart. Most simple shopping-cart applications do not allow checkout to be done before any items are added to the cart. Data are often stored in an external database or application-based databases which can be accessed in real time by the application administrator.

USING SCHEMES TO IMPROVE THE E-COMMERCE EXPERIENCE:

Most commerce sites fail in one (or both) of two ways: first, they may fail to adhere to the user's schema for commerce; and second, they may violate the schema. The cause of the schema failure or violation may be bad site design, bad information architecture, badly designed commerce engine, rushed implementation, unfamiliarity with the audience...whatever the cause, I believe the blame can usually be assigned to somebody not understanding what the user expects from a commerce transaction. The most elemental rule for designing a quality site understands your audience. The most common type of problem with E-commerce sites is failing to adhere to the typical user's commerce schema; interestingly, many of these problems also end up being user interface and usability problems. While these problems vary in severity and scope, keep in mind that ANY deviation from the user's expectations will disturb the user; disconcert the user enough and they may decide that they were lied to. And, as Jakob Nielsen remarked on his 31 January 1999 Spotlight, "On the Web, credibility and trust are everything because your company exists as nothing but glowing pixels on the user's screen. Lie to a user even once and you have lost that customer forever."

Violations of the schema are potentially the most disturbing problem for E-commerce users. These violations go beyond just improperly handling some expectation; they jarringly confront the user with an unexpected and threatening event. Two unfortunately common violations are the requirement to register in order to use the commerce site, and any ambiguous error within the actual ordering flow. Registration is a major sore point with commerce sites. Users do not expect to authenticate themselves before they are ready to purchase. If a user cannot flag a product for later reference -- for example, adding the product to a shopping cart or wish list -- without registering and/or logging, the typical user will be frustrated and will possibly get angry:

this authentication barrier occurs at a point in the shopping experience that doesn't reasonably require authentication.

THE NATURE OF E-BUSINESS TESTING:

It is clear from above explanations that the expense of a failure in an e- business framework is imposing. E-business testing incorporates testing high esteem, high hazard, and elite business basic frameworks. The testing methodology ought to be composed in such a way, to the point that it covers are sorts of risks to keep away from or minimize the expense of failures. The complex nature of e-trade applications likewise includes risks on the grounds that all the exercises like purchasing, offering, store exchange and so forth are included in single exchange and this unpredictability in creating a thorough risk. It is extremely hard to precisely pinpoint where the risk of failure exists. Which application fizzled? Where did it come up short? What's more when did it come up short? E- Business testing means testing the every single part at each level and web applications for potential risks and failures, alongside the e- trade "site" in general. A bug in Web server, exchange server or database framework, may be missed or overlooked which may bring about failure of entire framework. So the center of testing may be on the webpage all in all or on the code particularly composed for the web application. Sadly, a subtle bug, an infection in a third- party segment may cause a genuine failure. This failure may prompt misfortune in income, awful attention, lost notoriety, client certainty and loss of time and cash.

PROBLEM OF TRANSITIONING TO E-TRADE TESTING FROM OTHER PLATFORMS:

E-trade testing includes various difficulties, for example, new or new innovations, engineering driven business procedures or rationale that the analyzer doesn't see how to test. Taking in the vital data or aptitudes may be mind boggling however can be disentangled with techniques for rapidly creating test thoughts or test plans that address potential dangers. I accept that a layout of overall scrutinized potential failures can help level the lofty expectation to absorb information included with e-business testing. It might be beneficial for any analyzer who is moving into the e- trade testing coliseum to recall the accompanying issues:

•TEST GLOBAL AND TEST DISTRIBUTED:

E-business frameworks are positively worldwide in soul and structure. The diverse basic frameworks may be on distinctive mainland's, yet they seem to incorporate consistently over vast, circulated and non-homogenous business systems and other correspondence channels. Hazard examination and test arranging ought to take into consideration potential issues brought on, for instance, by a reaction of a product update on an exchange server physically placed in Holland on an exchange occurring between a client in Korea and a retailer in the United States.

MS WHERE1ST M: MULTIPLE PLATFORM 2ND M: MULTIPLE CLIENTS (BROWSERS) 3RD M: MULTIPLE CUSTOMER PROFILES:

This will be an impressive change for an analyzer who comes to e-trade testing from other customary testing fields. In the stand- alone or more seasoned customer servers, the client's stage, the customer sort and the way of the client may be well known to the engineers and analyzers. E-business frameworks include more uncharted region, with more prominent differences of working frameworks, programs and other framework programming and fittings.

E-TRADE SHOPPING CART OUTLINE:

The well known allegory of a shopping truck that is available in numerous e-trade destinations has a vital capacity of staying informed concerning the client's state while he/she is "shopping". A straightforward

truck might simply keep up a rundown of things that the client puts in it and keeps up state until the client gets done with shopping and passageways the framework (by shutting the program). Intricate and progressed trucks have more modern usefulness, for example, continuous charge card handling and genuine time request following. As e- business destinations become in size and prevalence, they have a tendency to add more gimmicks to their shopping trucks. Shopping trucks have developed from straightforward state following capacities to an exceedingly modern and imaginative bit of programming offering an adaptable scope of client choices.

The differing qualities, the inventive creative ability and innovative advancement that have gone into the outline of these next- era shopping trucks, make them captivating and testing to test. A few issues that you may need to consider before testing a shopping truck are:

1. The same issue of testing under "web years" examined about general e-business testing applies here. Thus analyzers will need to figure with testing under diminished time and sudden spikes in workload.
2. A shopping truck may not scale. It may function admirably for 100 clients however not for 1000. Analyzers ought to gauge execution gauges right on time in testing.
3. They are productive and shift enormously regarding configuration, size, many-sided quality, and hidden engineering. Henceforth no standard best practices exist that can give a solitary point reference on the most proficient method to effectively and exhaustively test a shopping truck.
4. Because of the fast advancement and change in their configuration and peculiarities, it is basic for analyzers to experience legacy- shopping trucks assembled with antiquated innovation.
5. In contrast, the quick changes in outline and usefulness may be a test to the less tech- wise analyzer, as they include all the more learning weight the analyzer. I thank Karen Johnson for imparting her encounters on testing a shopping truck and for her inputs on a percentage of the issues/bugs specified here.

DIVERSE TYPES OF SHOPPING CARTS:

1. Testing each of the shopping trucks can be altogether different in view of the distinction in the way they have been assembled and facilitated. With the exception of some in- house shopping trucks, shopping trucks have a tendency to have an expansive number of third gathering segments, which are at times past the extent of the testing gathering.
2. 3rd party -assembled and - facilitated shopping trucks are by and large a less expensive option. They are utilized by little scale e-business locales with less staff to plan and keep up the framework. At times the third party host may be the same as your site- facilitating supplier. Anyway third gathering facilitating wrenches a significant part of the control far from the analyzer since the majority of the parts are not in the analyzer's space. Yet the positive side of this kind of shopping truck is that the truck is littler, less perplexing and by and large simpler to test.
3. Out-of -the -box shopping trucks are adjustable, pre-assembled, and prepared for sending. Establishment, customization, and design bugs are a portion of the regular sorts of issues that analyzers will experience when testing shopping trucks of this type. Despite the fact that numerous genuine security openings have been gotten because of awful settings and terrible arrangements in out-of- the- box trucks, a significant part of the deeper level of testing turns into the obligation of the merchant who initially created the truck programming
4. And at long last there are a lot of people free shopping truck scripts accessible for download in CGI or ASP script locales. Exceptionally basic and little scale e-trade locales have a tendency to utilize these trucks. From the analyzer's viewpoint, the danger is in the script code. While some of these scripts are well done, beginners hastily develop others.

CONCLUSION:

E-commerce is widely considered the buying and selling of products over the internet, but any transaction that is completed solely through electronic measures can be considered e-commerce. Day by day E-commerce and Mcommerce playing very good role in online retail marketing and peoples using this technology day by day increasing all over the world. E-commerce security is the protection of e-commerce assets from unauthorized access, use, alteration, or destruction. Dimensions of e-commerce security; Integrity: prevention against unauthorized data modification, No repudiation: prevention against any one party from reneging on an agreement after the fact. Authenticity: authentication of data source. Confidentiality: protection against unauthorized data disclosure. Privacy: provision of data control and disclosure.

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