Usability: An Ultimate Journey of Experience

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Abstract

Very rightly said "Life is a journey of experiences, some good, some bad, and some we choose to forget!”. So what exactly we have planned for our customer??

In this world of cut throat competition, survival is most difficult aspect. Specifically talking about Information Technology industry countless products, services, websites etc are created but only few of them in actual impresses customers. The question arises...Why? Because of their functionality, value, brand, relevance, uniqueness, innovation... or is there anything else which also plays very important role?? Yes, there is lot more which doesn't seems to be a big issue but is actually one of the major one. Its usability - the degree of ease to which people (users) can perform a set of required tasks and user experience. It accounts to whether the user experiences scary roller coaster ride or the experience of a hot knife through butter?

Have you ever given a thought why Gmail has taken over earlier emails like hotmail, rediffmail ? or why Samsung and apple have gulped major share of the market? , what android has offered that people are crazy about it? why touch phones? No...So this presentation will answer all your questions that might have raised now.

This article will help in solving all the queries about usability testing and issues related to usability.

Introduction

Have you ever experienced embarrassment because you pulled/pushed the door in wrong direction? I have experienced. Felt embarrassed among so many people and that too not because of my fault...just because proper indications of pull and push were not displayed. So that is the usability issue that we face in our day to day life.

Technology is invented to make life easier for us. If we didn't have technology we would not have microwaves, washing machines, computer etc. which have made our lives far comfortable. So remember we should not make our customer feel stupid rather they should be a proud owner of our product. And that is possible only if the product launched is usable.

Usability issues may occur in any product may it be a car, door, mobile phone, computer, website etc. Let us talk about very general usability issues that are encountered while surfing on internet.

1) Many of times websites are developed on flash sites which is really a poor idea because the majority of population who are using iPhones, iPads will not be able to view the content. It is not their loss as many replacement of that site will be available. But this is a major loss for the company to which the website belongs.

2) Dead links are other very important usability issue which is a downturn for the user of the website. No one wants to go through the website where more and more dead links are present.
3) Any content that requires a plugin is going to be missed by some users who don’t have the plugin and don’t want to install it. So the general content which does not require any special plugins should be made.

4) Broken functionalities are another reason where the usability of a website compromised. Some examples for broken functionality could be the forms that don’t submit videos that don’t play and shopping carts with error messages that gives a poor user experience.

5) Important information written in small font is another very major usability issue where the information of great importance is not highlighted to the user.

Once the person is aware of some general and some technical usability issues, he/she is in state to understand the basic concepts of usability.

This paper is divided into three parts

1) Usability Concepts
2) Usability Testing
3) Usability and user experience

**Usability Concepts**

There are three terms which need to be understood for usability. These are:

User: User is the one who actually interacts with the product. He/she initiates all the actions and therefore usability is the major aspect for the user.

Interface: User interface (UI) is the intersection of product and user.

Service/Product: Service or product is the entity on which the actions are performed.
Now the question arises what usability is?? Answer to the question is usability is a quality attribute which measures how easy an interface is to use.

There are five main **components** of usability: Learnability, Efficiency, Memorability, Errors, and Satisfaction.

**Learnability**: How easy is it for users to accomplish basic tasks the first time they encounter the design?

**Efficiency**: How quickly tasks can be performed once the design is learned by the user.

**Memorability**: When users return to the design after a period of not using it, how easily can they re-establish proficiency?

**Errors**: How many errors do users make, how severe are these errors, and how easily can they recover from the errors?

**Satisfaction**: How pleasant is it to use the design?

Need for usability:

In the world of cut throat competition, usability is the most important condition for the survival. Daily lot many products come into market and vanish without leaving impact. A
product cannot survive if usability is missing. Therefore the main essence of product is usability.

Once the user is clear about all the concepts of usability, understanding usability testing becomes easier. So the next part of the paper focuses on Usability Testing.

**USABILITY TESTING**

Usability testing is a black box testing technique used in *user-centered interaction design* to evaluate a product by testing it on users.

**Goals of usability Testing:**

Goal of this testing is to **satisfy users** and it mainly concentrates on the following parameters of a system:

- Effectiveness of the system
- Efficiency
- Accuracy
- User Friendliness

**Process of usability testing:**

![Diagram showing the process of usability testing: Planning, Recruiting, Usability Testing, Data Analysis, Reporting]
**Planning:** During this phase the goals of usability test are determined. Having volunteers sit in front of your application and recording their actions is not a goal. You need to determine critical functionalities and objectives of system. You need to assign tasks to your testers, which exercise these critical functionalities. During this phase, usability testing method, number & demographics of usability testers, test report formats are also determined.

**Recruiting:** During this phase, you recruit the desired number of testers as per your usability test plan. Finding testers who match your demographic (age, sex etc.) and professional (education, job etc.) profile can take time.

**Usability Testing:** During this phase, usability tests are actually executed.

**Data Analysis:** Data from usability tests is thoroughly analysed to derive meaningful inferences and give actionable recommendations to improve overall usability of your product.

**Reporting:** Findings of the usability test is shared with all concerned stakeholders which can include designer, developer, client, and CEO

After all this a question arises that how many resources are needed in order to carry out usability testing.

As per one of the study “Virzi, 1992 and Neilsen & Landauer, 1993” 5 users are enough to uncover 80% of usability problems. But this does not mean that 5 users will solve the problem. Increase in usability participants results into increased cost, planning, participant management and data analysis. Therefore selection of right number of resources is very important.

Now the question comes that from where the need of resources is fulfilled. The answer to the question is latest emerging trends ‘Crowdsourcing’ and ‘Outsourcing’.

Following are some of the **best practices** that need to be followed:

- Find crucial usability problems before the product is launched.
- Start the testing during the early stage of design and development.
- It’s a good practice to conduct usability testing on your competitor’s product before you begin development.
- Select the appropriate users to test the system.
- Testers need to concentrate on critical & frequently used functionalities of the system.
- Educate Designers and Developers that this testing outcomes is not a sign of failure but it’s a sign of Improvement.

**Pros of Usability Testing**

- It helps uncover usability issues.
- It helps improve end user satisfaction.
- It makes your system highly effective and efficient.
- It helps gather true feedback from your target audience, you do not need to rely on “opinions” from random people.

Cons of Usability Testing
- **Cost** is a major consideration in usability testing.
- Recruiting and management.

> However, these costs pay themselves up in form of higher customer satisfaction, retention and repeat business. Usability testing is therefore highly recommended.

**USER EXPERIENCE**

The third and the most interesting part of the paper is ‘User Experience’.

User experience (UX) involves a person’s emotions. The aim here is to create happiness. Is user experiences scary roller coaster ride or the experience of a hot knife through butter? Depends on the requirement of user. Relationship between the usability and the user experience is:

Usability answers the question, “Can the user accomplish their goal?”

User experience answers the question: Did the user has as delightful experience as possible?

After going through the entire paper one can easily come to the conclusion that ‘Usability is like oxygen’. Since humans cannot survive without oxygen in the same ways products cannot survive without usability.

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