HCI & Web Design

Analysis of relationship between HCI & Web Design

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Abstract:

The report aims to analyse the relationship between HCI and Web Design by drawing inferences from the observations in the primary and secondary experiments which were conducted. It was found that the primary experiment aimed to measure how people react to the system and content, whereas the secondary experiment tries to find how the system can be improved by getting feedback from user. Thus, the aim of both experiments is to observe behaviour of users to the system and improve the web design by including the user feedback and also factors from the user behaviour.

Introduction:

According to Marcos, Human Computer Interaction (HCI) is the discipline focused on studying how people behave when using technological systems (cited in Marcos & Rovira, 2013). The following paragraphs discuss the same using two different experiments and try to establish a relationship between HCI and Web Design. In the primary experiment we study how users behave to different types of content and to the system whereas in the secondary experiment we get the user feedback on usability of a web page. HCI aims to improve interaction with the computer systems by observing the human behaviour (Marcos & Rovira, 2013) and these observations can be used in web design to develop web pages which provide a great user experience. Thus, this report talks about analysing relationship between HCI and web design and improve user experience by combining both of them.

Background:

The purpose of the primary experiment is to observe the behaviour of people to different contents on the computer screen. This was done using sensors to measure the physiological responses along with eye gaze and pupil diameter tracking. The purpose of secondary experiment was to improve the user experience by user evaluation of web pages. This will help in gathering the user requirements and also in understanding the user's mental model. The overall purpose of both the experiments is to decipher which parameters map the human behaviour very well and how it can be introduced to improve website design according to users' mental models, requirements, level of expertise etc.

Experiences from participation in a primary experiment:

The experiment steps were to understand requirements, provide consent, wear the equipment, read the text and answer the questions (Sharma & Gedeon, n.d.). The experience of conducting the primary experiment was a little tiresome because too many things were clipped on the fingers and wrists. The first step was to calibrate the eye gaze which was fairly

easy, but the difficulty was in maintaining the same position throughout the experiment since the gaze was now calibrated and you can't move too much. The topic on which I had questions were related to psychology. In my experience, I attended all the questions like I would attend any other question and did not realise if there was any kind of different reaction to different types of the content.

Overall, the primary experiment was targeting to find out information about my behaviour patterns with respect to the content, but I did not realise that I was reacting differently to different types of questions. I also believe that the equipment also affected the experiment results up to a certain extent as they were a distraction at times.

Differences between primary and secondary experiment:

The secondary experiment was very easy to perform as compared to the primary experiment. It was a simple experiment where I had to compare two webpages and decide which was better and why. I learnt that having a good web page design makes it easy for the user and it will also help in keeping the user coming back to the website again and again. In order to design a good webpage the design principles from HCI should be followed along with the gathering proper user requirements and their mental models.

The secondary experiment did not involve recording anything except for calibrating the eye gaze and there were no separate instruments attached to measure anything. Overall, the primary experiment was more difficult than the secondary experiment due to the various measuring instruments involved. The primary experiment recorded measurements to analyse the behaviour whereas the secondary experiment achieved the analysis by the feedback provided in the assessment questions.

HCI and Web Design:

The participation in the above experiments helped me in establishing a relationship between HCI and Web Design. As mention above HCI studies behaviour of humans while interacting with the systems. Therefore, HCI can be used to predict how a user will behave to a certain feature or function of a web design. It can also be used to map user's mental models in the system which will help in bringing the users back to the website as it matches their requirements. The design principles in HCI were developed after observing the user behaviour and thus when these principles of feedback, visibility etc. are applied to the website the user experience is enhanced. HCI can be used to develop good design and by following this in web design convenience of usability can be provided to the user. Therefore, HCI is a model which when applied to applications like web design make the user's interaction with the system smooth (Marcos & Rovira, 2013).

Conclusion:

Primary and secondary experiments were conducted to observe behaviour of users to systems and the content, and to get feedback from users about web design. The conclusion from these experiments is that there is an evident relationship between HCI and web design. HCI principles are the basis for good web design and by observing the behaviour of users and designing the web pages according to the behaviour observations the user experience and

the usability of the website or web page can be enhanced. Thus, HCI is an important part of web design as it studies the users and suggests the changes in systems based on the studies.

References

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