Web Usability Evaluation System Based on Three-Point Task Analysis Method

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The purpose of this paper, we report the design, development and evaluation of a system to analyze usability of the web site. Using internet varies with the spread of a broadband, and active users who upload data in web like a Blog and SNS are increasing. It is usability that many active users need to use web sites. The users requirements are that they commit the same mistakes but they can communicate by network, and that a help functions become complicated with web sites functions increase. That can be disagreement of a recognition model and web navigation.

By conventional web usability evaluation, it needs to move web browser and task analysis support system. But you can analysis in the same browser, using web annotation. However, using it has a problem that not only useful data but also useless data increase. Because it is difficult to structure different users requirement for an improvement concept, in case of usual web usability analysis, practical use cannot make use of a characteristic that web site can rebuilding easily.

We developed environment for web usability analyzing has affinity for web sites. A suggestion system support structuring requirements by web annotation to rebuilding web sites. The system a subject and an experimenter are async distributed surrounding. So, it works only in web browser but depend on a specific analysis method.

In this paper, before developing system, I reserched the conventional user tests in synchronization same room environment. By this reserch and to interview an experienced person, I found it important to help subject a work procedure. So, the comment " Interpretation how they find problems slips off between a subject and an experimenter" in the interview, I understood that disagreement of interpretation was easy to happen.

I constructed the system adopting three-point task analysis; a method used to find and analyze users requirement in async distributed surrounding. The advantage of three-point task analysis is that, even non-specialist users can access to the information, understand it, operate it and can make a judgment. Based on the advantages, I design the system that real web users can attend. To make it easier for users to operate and to find their requirements I developed a tool that interconnect and operate simultaneously with the web site. Furthermore, to make it easy for administers to understand and retrieve users requirement, I implement functions that support and arrange to extract demand.

In evaluation experiences it evaluated two situations, which are the web site's users and its administers. In the users, it evaluated three situations, which are the questionnaire about usability, operation log of a keyboard and a mouse, and the number of problems, those solutions and categories. In the evaluation experience of the questionnaire about usability, meaningful probability of "Plainness of operation" was one percentage. In the evaluation experience of the operation log of a keyboard and a mouse, meaningful probability of "distance of mouseMove (dots)" was five percentage. In the evaluation experience of the number of problems, those solutions and categories, there is a meaningful tendency to a number of problems, those solutions. By those three situations, this system was more effective value than the other system. In the administers, it evaluated by an interview. In the evaluation experience of the interview, by the comment "Using three-point task analysis, because we can choice category, disagreement of interpretation is hard to happen in a subject and an experimenter", it discovered the problems to evaluate web usability in async distributed surrounding were improved. And by the comment "It is a chance to analyze it in detail", it discovered a function to structure was useful.