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ENHANCING THE HEURISTIC EVALUATION (HE) BY DEVELOPMENT OF A COLLABORATIVE DESIGN MEASUREMENT SYSTEM (CDMS)

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ABSTRACT

This research looks into an innovative solution in Heuristic Evaluation (HE) that is called Collaborative Design Measurement System (CDMS). HE will be performed by usability practitioners based on heuristics that have been identified earlier that is necessary for the domain of the product under test (PUT). Some of the heuristics that has been validated by previous studies for e-Government, e-Learning and e-Commerce portals include compatibility, functionality, flexibility and control, consistency and standard, navigation, informative feedback, user guidance and support, privacy, explicitness, error prevention and correction, visual clarity, language and content. One of the main problems with this approach is the tendency of the usability practitioners to reuse the heuristics without assessing it validity for the product domain. Some of the other problems faced by usability practitioners during the HE process include difficulty in generating report and performing analysis. The report generation is manual, error prone and incurs additional time and resources. There is no established usability metrics for the HE activity being performed to provide stakeholders a decision making strategy of the outcome of the HE. In other words, it is important to derive a Go or No-Go criteria after the product has been tested. The objective of this research is to identify requirements to develop a CDMS. The research also aims to present statistically collaborative of design scores and summary of results. Subsequently, this research presents the development of the CDMS and the validation of the developed solution with 30 users. The 'collaborative' aspect of the system is needed since the system is used by designers, testers, managers and users who work collaboratively towards the design, development and testing phased of the product life cycle. The user requirements are gathered from interviews (10 subjects) and presented as a CDMS use case diagram, system work flow diagram, class diagram and Information Architecture (IA). The developed system is then tested using informal usability testing with 30 subjects. A mixed of positive and negative feedback were received. The results obtained from the testing revealed that the system is usable at the present state. However future improvements would take place at the next cycle of development.