

A USER-CENTERED DESIGN OF PATIENT SAFETY EVENT REPORTING SYSTEMS

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ABSTRACT

Usability is critical to the success of computerized system, yet it has received little attention in the field of patient safety event reporting. Failures in this regard may largely contribute to the low user acceptance and low-quality data that the reporting system currently confronted. In this project, we studied about three usability aspects of the system regarding the efficiency, effectiveness and user attitudes in an iterative process of system prototyping. With the involvement of user feedback and evaluations, the project identified and dealt with a number of usability problems that undermined the system acceptance and data quality.

As demonstrated in a most recent study, two functions of text prediction on structured and unstructured data entries for event documentation were proposed and evaluated. Through the analysis and evaluation process, the proposed solutions have successfully proven effective to improve the system performance on the three usability aspects in terms of reporting efficiency, data quality and user satisfaction.

This project contributed to health informatics practice and research in three aspects. First, it proposed a conceptual model of guiding the usability enhancement of patient safety event reporting system. Second, it introduced and evaluated the technique of text prediction to the nursing clinical documentation in reporting. Third, the application of ad-hoc tools and methods in the project is instructive to researchers who work on the usability studies of health information systems.