

عنوان مقاله:

ACCURACY OF SPEECH RECOGNITION SYSTEM'S MEDICAL REPORT AND PHYSICIANS' EXPERIENCE IN HOSPITALS

محل انتشار:

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خلاصه مقاله:

Introduction:Speech recognition (SR) technology has been existing for more than two decades. But, it has been rarely used in health care institutions and not applied uniformly in all the clinical domains. The aim of this study was to investigate the accuracy of speech recognition system in four different situations in the real environment of health services. We also report physicians' experience of using speech recognition technology.
Material and Methods:To do this study, NEVISA SR software professional v.۳ was installed on the computers of expert physicians. The pre-designated medical report was tested by the physicians in four different modes including slow expression in a silent environment, slow expression in crowded environments, rapid expression in a silent environment and rapid expression in a busy environment. After using the speech recognition software by ۱۵ physicians in hospitals, a designed questionnaire was distributed among them.
Results:The results showed that the highest average accuracy of speech recognition software was in the silent environment by slow expression and the minimum average accuracy was in the busy environment by rapid expression. Of all the participants in the study, ۵۳.۳% of the physicians believed that the use of speech recognition system promoted the workflow.
Conclusion:We found that software accuracy was generally higher than the expectation and its use required to upgrade the system and its operation. In order to achieve the highest level of recognition rate and error reduction by speech recognition, influential factors such as environmental noise, type of software or hardware, training and experience of participants can be also considered

کلمات کلیدی:

Speech Recognition, Physicians, Accuracy, Software

