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User Requirements Elicitation: Evaluating the Effectiveness of a Prompting Technique for a Human Resource Information System

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Abstract

Eliciting user requirements is a vital part of the requirements determination phase of software development. The requirements determination process gathers, organises and documents the complete set of end user requirements. This process has been described as the most difficult activity of information systems development. This difficulty is further compounded by the problems encountered in communicating complex human resource information needs to systems analysts. There have been problems in the past where the implementation of a human resource information system (HRIS) has failed to meet an organisation's needs. The literature suggests that a lack of understanding between the information systems and human resource disciplines is one of the major impediments to HRIS reaching their full potential. Attempts to improve the communication between the human resource user and the system analyst will not only help to increase the effectiveness of the information system solution, but will ensure that the organisation's strategic objectives are matched with the human resource systems and applications that support them.

The purpose of this research was to compare the effectiveness of two prompting techniques when used in an interview setting to elicit user requirements for a HRIS. The task characteristics prompting technique used substantive and procedural prompts to overcome cognitive problems experienced by users. The syntactic prompting technique used the interrogatories questioning method which involved asking 'who', 'what', 'when', 'where', 'how', and 'why' questions. Prior to analysis, a set of generic requirements categories was used to code the user requirements elicited from each technique. The categories consisted of goal, process, task and information level requirements. The results showed that the task characteristics prompting technique was effective in eliciting a greater number of requirements than the syntactic technique, and particularly that the differences in requirements evoked were significant for the information level requirements. This research represents an effort to build on the empirical work completed by previous researchers and provides a basis for further research in prompting techniques for the elicitation of user requirements for information systems. Implications for practitioners are discussed and future research directions are recommended.
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