Extending the Accessibility of the Cognitive Dimensions Framework for Researchers and End Users

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Abstract:
The Cognitive Dimensions Framework is primarily used by researchers and practitioners who are familiar with the framework and its concepts. Such users are generally drawn from the broader Computer Science community, and can therefore be assumed to have sufficient domain knowledge for the framework to be considered accessible. There exists however, a much wider pool of potential users of the framework, whose knowledge of core computing concepts is insufficient for them to readily access the framework. Such users may be drawn from non-computing disciplines which demand increasing usage of Information Systems such as Construction, Psychology and so on. In these disciplines there is an awareness that the design of information systems strongly influences their success. The Cognitive Dimensions framework would be applicable to such systems, both in their design and evaluation, but it is not currently accessible to those without a reasonable level of domain knowledge.

Previous experience of the Cognitive Dimensions usability assessment questionnaire [1] indicates that this overhead acts as a barrier to use of the framework. A revised questionnaire is proposed, intended for use by researchers in both computing and non-computing disciplines. The questionnaire is piloted with researchers in the research institute for the Built and Human Environment at the University of Salford, and is used in the evaluation of an information system designed to increase public involvement in the planning process. We report on the effectiveness of the questionnaire and consider the extent to which it opens the Cognitive Dimensions Framework to a wider audience.

[1] Blackwell, A.F. & Green, T.R.G. (2000). A Cognitive Dimensions questionnaire optimised for users. In A.F. Blackwell & E. Bilotta (Eds.) *Proceedings of the Twelfth Annual Meeting of the Psychology of Programming Interest Group*, 137-152.