Abstract

An Evidence-based approach is using a best available evidence for making a judicious decision about a given set of problem. Evidence-based approach is an integration of individually gained expertise with the best possible evidence available from a systematic research. It started in medicine as evidence-based medicine (EBM) and is now being used in other fields such as nursing, psychology, education, library and information science also. Its basic principles are that all practical decisions made should 1) be based on research studies and 2) that these research studies are selected and interpreted according to some specific norms characteristic for Evidence Based Practice [EBP]. Software draws its roots from EBM and does Evidence
Based Software Engineering [EBSE] which is potentially important because of the central place software intensive systems are starting to take in everyday life. In Evidence-based software engineering [EBSE], all the experiences are properly documented in order to inform software practice adoption decisions. In EBSE, the study factor would be the technology of interest. The technological specifications should be very detailed and not at a very high level of abstraction that is the software lifecycle and all the design methods should be properly read and documented and only then should the engineer collect evidences on it and design the software generation model. Evidence based software engineering can be applied in testing and cost estimation. Various metaheuristic search techniques are applied for searching literature and relevant evidences are gathered, these evidences are then put into practice. The results are compared with existing practices.

References

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- Adapted from "A systematic review of search-based testing for non-functional
An Evidence-based Approach to Discovery and Assessment of Software Engineering Decisions

system properties" Wasif Afzal , Richard Torkar, Robert Feldt

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