The importance of decision support in team-based and fast paced environments

Fearghal McHugh a, Thomas Acton b

a Fearghal McHugh, The Whitaker Institute, J.E. Cairnes School of Business & Economics, & LERO, the Irish Software Engineering Research Institute, National University of Ireland Galway, Ireland, Email: fearghal.mchugh@nuigalway.ie

b Dr. Tom Acton, Business Information Systems, J.E. Cairnes School of Business & Economics, & LERO, the Irish Software Engineering Research Institute, National University of Ireland Galway, Ireland, Email: thomas.acton@nuigalway.ie

Abstract

Keywords: decision making, agile, teams, decision support

Agile software development teams operate in turbulent and fast-paced environments involving lots of quick decision making on functionality, scope, and other variables. Information is often spread across a range of collaboration platforms and sources, including instant messaging, e-mail and proprietary applications. Appropriate tools that identify and incorporate information from relevant platforms/sources are needed to enable more efficient decision making in such environments. Current tools focus mainly on individual task-specific performance. New approaches for interaction and data presentation are needed to support decision making. Further, new decision support tools are required to enable software development teams make optimal decisions in agile contexts.

The main objective of this research is to provide a targeted team-based business intelligence solution for optimal decision making in agile software development. Using a design science methodology and a quantitative approach, the research will produce a framework for the identification of good practice tool usage supporting team-based decision making at the organisational level, a charter for the construction of an interlinked BI solution for optimal decision making, and an industry-based implementation. The work has potential contributions both in agile software development contexts, and also in other team-based fast paced environments.

“This work was supported, in part, by Science Foundation Ireland grant 10/CE/I1855 to Lero - the Irish Software Engineering Research Centre (www.lero.ie).”