

# Improving Requirements Identification for Internet Development Project

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## Abstract

Internet applications are increasingly used in everyday business and life. However, despite their obvious potential, the successful management of large-scale internet projects using traditional project management practices has proved problematic, as demonstrated by the Irish government's eGovernment initiative. Comptroller and Auditor General (CAG) reported that out of 161 projects, less than half were fully delivered, 44 partially delivered, 23 abandoned, and moreover cost were 20% higher and duration was 25% more than initial estimations [1].

Agile Methods (AM) for software development recognize this general issue by having customer commitment and short development cycles as guiding principles. This intention is that close collaboration allows input from people who will actually use the final system and that the short cycles allows this to influence development, thus facilitating project management. However, various difficulties have been reported with these approaches, particularly the customer role. Essentially, there are few guidelines on the implementation of the customer role to suggest how interaction with developers should occur. In particular, the report in [1] called for clear "business target benefits" (goals) definition in advance of implementation [1]. The research problem is to propose a systematic way of analyzing user groups and their expectations to enhance existing project management approaches with AMs.

In the proposed solution Interaction Design (ID) activities and Scrum process are combined to form a process for proper requirements elicitation and efficient project management. ID activities can be used to ascertain the requirements for an internet project by using ID tools such as personas and goals. Personas are hypothetical characters but created with some precision and details. Everything a persona does is to achieve a goal. There may be more than one way of achieving a goal but goals remain static even as the related tasks used to achieve these goals may change due to change, for example, in technology. ID believes focusing on the goals rather than the tasks to design a system can produce better result.

Scrum follows an iterative process of software development implemented by *scrum teams* who take part in 15 minute daily meetings of 30 days *sprint cycles*. After the *Product Backlog (PB)* is prioritized by the *Product Owner*, *Sprint Planning Meeting (SPM)* is held to develop a detail plan for the iteration. On conclusion of every 30-day sprint, a *Sprint Review Meeting (SRM)* is held to reprioritize the requirements and improve coordination among team members.

The proposed solution uses ID to specify a high level goal and specific goals based on individual user scenarios to provide a good foundation for forming requirement lists for the PB as this is the crucial initial step of the Scrum process. Goal based requirements identifications can help reduce requirements redundancy. Requirements evolve and the specific goals change although not as frequently as the tasks during the project but the high level goal will very likely remain same through out the life of the project, this will help to guide the team towards proper changes in requirements of internet projects where initially the clients have poor understanding of their needs.

## References

[1] The Irish Times, "Failure of e-government", Available:  
<http://www.ireland.com/newspaper/finance/2008/0111/1199917844950.html> [20th February,  
2008].