Technical Debt: FUR & NFR measurement contributions to Technical Debt sizing

Final Workshop Agenda

Abstract:

Technical debt is defined as the cost or consequence of prioritizing delivery over performance or quality. What are the key drivers of technical debt, and how such key drivers can be sized? This workshop will explore the identification of technical debt cost drivers, which ones can be derived from software functional requirements not yet implemented as well as from system non-functional requirements not implemented and that can be implemented in software functions distributed across a software environment.

First, we will try to develop a common understanding of what Technical Debt is and how it affects agile development practices. Next, we will aim at identifying measurement solutions that are already available, their strengths and weaknesses, and gaps, where there are no measurement solutions available yet. Third, we try to define and promote a method for practitioners that can widely be used among all the software measurements and counting communities.

Goals of the Workshop:

identification of key issues in the measurement of Technical Debt, including existing measurement solution and gaps, followed by a preliminary planning on how to tackle some of the issues identified over the next two years.

Preliminary Program:

09:00 Introduction (Alain Abran)

09:10 Short Intro of participants (½' each)

09:20 Position papers (10' each)

- Technical Debt & the NFR Iceberg (Alain Abran)
- TD Removal: Is there any benchmark possible? (Luigi Buglione, Fabrizio Di Cola)
- Improving a model for NFR estimation (Francisco Valdés-Souto)
- Measuring TD in Agile Development (Thomas Fehlmann)

10:15 Caffè

10:30 Group discussions

- Group 1: How to identify Technical Debt (TD) that affects functionality? TD is in code, affecting code quality; functionality is independent from code and implementation details.
- Group 2: The value of Technical Debt Removal (TDR): Is there any benchmark possible? The value of TDR materializes during maintenance. Is DevOps a valid approach for cost estimation and tracking?
- Group 3: How to distinguish TD from bugs? When is bug removal resp. TDR appropriate?

11:30 Group discussion results

12:15 Next steps – plans for another workshop? For a Technical Report?

12:30 End of workshop

Contributions:

Contributions are expected as experience reports in the form of a short presentation, eventually accompanied by a short paper. We plan to publish a workshop report, edited by Alain Abran, where contributions will be included, as well as discussion reports from the groups.

Important Dates:

- 20. Aug. 2023: Send contributions, either as a short presentation or a short paper, to info@e-p-o.com
- 04. Sept. 2023: Notification of acceptance
- 08. Sept. 2023: Final workshop agenda
- 14. Sept. 2023: Workshop in Centro Frentani, Roma