

[Requirements engineering in traditional and agile contexts]

Requirement engineering (RE) is the process of defining, documenting, and maintaining requirements in both systems design and software design. (Sommerville Ian, 2016) Traditional requirement engineering compared to Agile requirement engineering has different approaches on both planning and control mechanisms. This essay is about to describe and compare the two types of REs.

Traditional Requirement Engineering involves important features such as elicitation, analysis, documentation, and management of the requirements. In the elicitation process, requirements and system boundaries are found by interviewing the stakeholders. The system boundaries give the vision of the whole system and techniques like prototyping and use cases come in handy for it. (A.Batool, Yasir Hafeez Motla. 2013) Requirement analysis is to check if the elicited requirements are consistent, complete, and feasible. Requirements need to be prioritized to satisfy some limitations since time and resources are likely limited. In the documentation process requirements are written in some accessible and reviewable way. The validation process checks that the requirements are consistent, and complete and they meet the needs of the customers. Requirements management is the process of managing all the information about the requirements, by a management team. (A.Batool, Yasir Hafeez Motla. 2013)

Agile RE, on the other hand, has different approaches to the features above. For instance, the Traditional RE engages the stakeholders, domain experts and RE engineers for requirement elicitation. However, in agile RE the product owner will describe and confirm the requirements of the customers to the development team. They need to ensure that the requirements are complete and consistent. For documentation, traditional RE requires requirement documents for future development, while in Agile RE, the problems are resolved through meetings. Changing requirements are done by the Change Control Board in traditional RE, while Agile RE could handle the evolving requirements at any stage. (A.Batool, Yasir Hafeez Motla. 2013)

The traditional approaches like Waterfall Model concentrate on pure planning while the agile method offers way more flexibility and adaptability. The agile methods have emerged as an insurrection against traditional methods, as the traditional RE is considered as highly technical and unproductive due to being related to complex documentation. The agile methods would increase the level of customer satisfaction due to their flexibility. Overall the traditional RE is not able to deal with the evolving requirements efficiently compared to Agile RE, and Agile RE could handle the uncertain requirements well due to its high flexibility. (A.Batool, Yasir Hafeez Motla. 2013)

Reference

- A.Batool, Yasir Hafeez Motla. 2013 "Comparative study of traditional requirement engineering and Agile requirement engineering" Advanced Communication Technology (ICACT), 2013 15th International Conference on
- Sommerville Ian, 2016 Software engineering, Boston:Pearson, Tenth Global edition.