Technical Debt in Software Development

February 7, 2018 (2:30 pm - 3:30 pm)

Jodrey School of Computer Science

SEMINAR PRESENTATION

Wednesday, February 7, 2018

2:30 - 3:30 PM

Carnegie Hall 325

Technical Debt in Software Development

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Abstract

Technical debt is a metaphor proposed by Ward Cunningham to convey the idea that doing things in a "quick and dirty" way when designing and constructing a software leads to a situation where one incurs more and more deferred future expenses. Similarly to financial debt, technical debt requires payment of interest in the form of the additional development effort that could have been avoided if the quick and dirty design choices have not been made. Two alternatives arise from this situation. First, keep paying the interest on the debt. Second, pay down the principal of the debt by restructuring the quick and dirty design into a better one. This second alternative is preferable on a long-term basis since it avoids compounding of the debt interest and therefore reduces the development and maintenance costs.

Technical debt applies to all the aspects of software development, spanning from initial requirements analysis to deployment, and software evolution. The lecture will examine the various contexts that leads to the accumulation of technical debt, the different types and dimensions of technical debt, the different activities supporting technical debt management, as well as the importance of being aware of technical debt. Technical debt has recently become a popular topic in industry and the research community.

The lecture would be suitable as part of an advanced course in software engineering, at the 3rd year or 4th year level.

About the Presenter

Alvine Boaye Belle is a postdoctoral researcher in the CRUISE lab at the university of Ottawa. She is also a part-time professor at the university of Ottawa as well as a research scientist at KDM Analytics. She received a Ph.D. in software engineering from the University of Quebec (Ecole de Technologie Supérieure). Her research interests include: software architecture, software analysis, reconstruction of software architectures, architectural styles, design patterns, expert systems, technical debt and assurance cases.

Everyone is welcome to attend

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