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Master's Thesis

Improving IT Forecast Quality Metrics

The issue of forecasting in project management has long been addressed by many. However, once estimations have been made the quality of these forecasts is still often neglected. Unsurprisingly, the metrics that address forecast quality are still scarce or have not evolved over time and thus lack usability or are prone to manipulation. Eveleens et. al (2009) elaborate on this topic and provide approaches to overcome some of the shortcomings in this field by evaluating estimation quality mostly from the ex post perspective. Thereby they provide possibilities to reveal recurrent biases in estimations, especially in a portfolio context.

Nonetheless, metrics for estimation quality still need to be improved to prevent intentional manipulation or organizational misuse. Thus, an evaluation of existing metrics and their strengths and weaknesses shall be addressed in this master's thesis. Subsequently, particular emphasis should be put on refining existing approaches of quantitative nature.

Recommended Literature:

- Tom DeMarco, Controlling Software Projects, Prentice Hall PTR, 1982
- J.L. Eveleens, C. Verhoef, Quantifying IT forecast quality, Science of Computer Programming 74 (2009) 934–988
- J.L. Eveleens, C. Verhoef, The rise and fall of the chaos report figures, IEEE Software 27 (1) (2010) 30–36
- Todd Little, Schedule estimation and uncertainty surrounding the cone of uncertainty, IEEE Software 23 (3) (2006) 48–54