The Inconsistency in Managing Inconsistency in RE: Between Theory and Practice

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Abstract—The problem of inconsistency has been in the spotlight of the RE community for many years. While in the previous decades it was perceived as a problem that needs to be eliminated on sight, recently it is more widely recognized that maintaining consistency at all times is not only infeasible but even counterproductive. Based on this recognition, recent paradigms and tools have been developed for managing inconsistency; however, their adoption in practice has remained quite modest. This paper describes an empirical study into practitioners’ perceptions and attitudes towards inconsistency management, which reveals that their decision making regarding inconsistency is often not grounded in the knowledge modern RE fundamentals have to offer. We propose possible explanations for this phenomenon, and discuss possible future solutions to bridge the gap between RE theory and practice in the context of inconsistency management.

Index Terms—Inconsistency management, Requirement engineering, Empirical study

I. INTRODUCTION