"Software Development Practices in New Zealand" – Kirk and Tempero

In "Software Development Practices in New Zealand" [1], the report authors look to "developing and applying a range of software productivity techniques and tools to enhance the performance of the New Zealand software industry". Like Assal and Chiasson, the authors of this study outlined a series of questions in a survey targeted towards known Information Technology organisations. The aim of the survey was to understand the practices used by industry and in the findings can be used to make recommendations on best-use development practices for organisations. Kirk and Tempero's report is similar in output to the one research defined in this report as the findings of the theory can be used to make suggestions for teams adopting and developing security practices.

The key findings of this study were:

- 1. Organisations and individuals **do not follow** standard agile process models.
- 2. New Zealand is generally more **implementation-focused** in software development. There is an emphasis on this over other aspects of the software development life-cycle such as security and testing.
- 3. Decision-making is a **collaborative effort** with individuals involved in different stages and traits of the development lifecycle.
- 4. While most New Zealanders state they are "agile" this is not supported as often contact with clients and stakeholders is not upheld. There is a **highly iterative aspect** to the work individuals do on projects which does maintain agile principles.
- 5. There is a **weakness in requirements gathering** which results in a widely noticed lack of clarity on scope details.
- 6. A tie in to point 2, notices a **severe lack of code quality** whether this be in design, reviewing and testing stages, or with general coding best practices.
- 7. Most do not develop around tools such as libraries, rather they use them as a support. This can be derived as not being "best-practice" and can be more time consuming.

The report had a limitation in which it did not make any recommendations at this stage, but it did mention that these findings can be used by organisations to obtain a view of the software

practices in New Zealand. From here the organisations can make their own decisions on what to focus on to better their specific operations.

Comparing to the described ENGR489 project, the methodology is different, and while the topics too are differing, they are similar enough to make interesting comparisons between the two. Kirk and Tempero focus on software development practices, while this project will research security practices. A comparison that can be made could be between the findings, as much like the prior related work, the findings are that of personal perspective of the participants rather than an objective view which Grounded Theory supplies.

Works Cited

[1] D. Kirk and E. Tempero, "Software Development Practices in New Zealand," Auckland, 2012.