**Topic 3 If working software is more important than extensive documentation**

**of that software, does that make it less safe and reliable?.**

**What is the role of documentation in a software product?**

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Abstract- Within software development processes where multiple iteration steps are used ("agile software processes') they consider working software to be more important than extensive documentation. It seems as if the documentation

of the software is considered unimportant. This is still enhanced by modern tools that make it possible to perform ever shorter and more frequent iteration steps. Agile software development predominates, with Scrum dominating the

prevails. This development would improve the reliability and

adversely affect the safety of the software. This has mainly

to make sure that within these development methods less

pays attention to extensive documentation. Investigated now

should be to what extent software documentation the safety

(privacy) and reliability positive, negative or barely

...has an impact. Questionnaires on the quality of

software presented to both software builders and users

to be handled. In order to check the security/privacy

use should also be made of interrogation of in

security specialized companies. In addition, it is also from

importance of testing whether the number of iteration steps affects

the quality of the software documentation.

I. INTRODUCTION

In software development projects where a waterfall

methodology is used, extensive documentation is considered extremely important. In the case of a methodology

where the software is developed using iteration steps, one starts from the principles expressed in the

Agile Manifesto[1]. Reliability is always a problem

been developing software. The fact that there

Nowadays, less attention is paid to documentation and that has not changed significantly. A legitimate question

is whether the problem of reliability with this is not

increased. Since the huge rise in the use of

Internet serves security and protection of privacy at all times

become bigger points of attention when it comes to computer software development. Governments will be in

the future with legislation is becoming more and more important

get involved. In their article Software process. In

Proceedings of the on Future of Software Engineeringuit

2014 Fuggetta and Di Nitto express their concern about this

developments and call on the academic world here

thorough research to be carried out[2]. However, it is then

the importance of establishing good criteria with regard to both

security, privacy protection as a quality of software.

These definitions should come from good, thorough research.

II. IS AGILE DEVELOPED SOFTWARE

UNRELIABLE SOFTWARE?

With software, developed using a waterfall method, particular attention is paid to

extensive accompanying documentation. It has to be,

because in the absence of iteration steps the communication between user and builder of the software must be good

be recorded. In addition to describing what the software

does, this documentation is often also considered to be

a contract between user and builder. In the case of software that

developed by an agile (cyclic) method are these

get out there. When applying such a method, it is believed that (much) less attention is paid to

requires extensive documentation. After all,

not documentation but working software is the primary

goal. But is the latter kind of software less reliable

than the first? Paul E. McMahon writes in his article

Bridging Agile and Traditional Development Methods: A

Project Management Perspective, that it is a misunderstanding

is to think that software developers who use agile methods

follow, attach little or no value to documentation

[3]. Sutherland and Schwaber, describing in The scrum

guide which important role adequate documentation plays in software development[4]. Scrum and its hybrid forms,

were already by far the most important development methods in 2012. According to a study conducted by VersionOne

5] among more than 4000 participants was that 72 investigations

should demonstrate the link between reliable

software and documentation (qualitative and quantitative). The

research described by Verner and Evance in

the article In-house software development: what project

As a research method, management practices lead to success. They have

investigated which aspects influence a failing

or successful software development project [6]. They made

use of a questionnaire that they software professionals

lied to me. However, in this context, the research results are

little useful for the following reasons:

1) The study is 15 years old and therefore used

none of the projects in this study have an agile

methodology. In order to be able to answer the above research question, this type of project must also

be investigated.

2) The software professionals gave their opinion on the

quality of their project; apart from the fact that quality

subjective understanding, the users of such

software to be included in the investigation.

3) If such research is to have any statistical relevance, the projects investigated must be

be as independent from each other as possible. This

independence comes under pressure as an involved

Respondent 'contributes' several projects. In the research, described by Verner and Evance, that is long

not always the case.

4) The projects in the research are static, they do not change with a changing environment. In

the review investigation should also cover

whether at each iteration step the software actually

improved.

III. DELIVER AGILE METHODOLOGIES AND MORE INSECURE ¨

SOFTWARE ON? AND WHAT ABOUT PRIVACY

ORDERED?

It is best if the security and privacy aspects are tested by professionals/organizations specializing in software security.

Although probably difficult to carry out, it would make the

most beautiful are (a part of) the projects examined in the previous section by these experts.

It is also difficult to establish objective security criteria.

Ideally, an assessment system such as the one used

in the automotive industry. There one uses a

star system which is called safety level of a model car

indicates. One star is unsafe; five stars is the safest. ´

Introducing such a system would greatly improve the quality assessment of computer software. Also

governments should be in charge of making privacy laws.

get a grip on this.

IV. NUMBER OF ITERATION STEPS

Borjesson and Mathiassen write in their article Successful process implementation (SPI) about software development at Ericsson, which was a major software producer in 2004 [7]. One of the conclusions from that article ´

was that the quality of the software was directly proportional

with the number of iteration steps (at least mostly). Since

in their investigation the number of steps was limited, came

they don't go beyond four steps. Above this number no

significant improvement on. However, it should be noted that

are that authors use only three levels of quality

(Low, Medium and High). Because there is only one limited

number of iteration steps (cycles) was present (in the most favourable

case 4), it was not measured whether the delivered software

could also 'grow' with future changes,

multiple quality levels were also likely to be few

relevant. In addition, the article suggests that

the iteration process only improves functionality

yields. From interactions to improved documentation and

performance is not spoken of. With the current state of technology, software development is possible

with many more iteration steps. Provides the application of more

Will better software also step up, also in terms of documentation and performance? Research into this in every

in case the answer to the question whether agile methods really

produce poorly documented software and therefore

worse software than that developed using the

waterfall method.

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