Veracity Technology Spearhead

Enabling end-to-end veracity within value exchange ecosystems

Preliminary Results of Pilot Interviews with Software Practitioners

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INTRODUCTION

In our research, we are investigating the quantification of Requirement Technical Debt (RTD) and how quantifying RTD can help in the decision-making to manage it.

We want to gather your perceptions to better understand what aspects (e.g., costs, benefits, consequences) of Requirements Technical Debt may be worth quantifying and what metrics, tools, or techniques may be helpful (either existing or new ones) for decision-making regarding the management of RTD. We want to investigate this for software requirements in general and for software requirements related to veracity. Veracity requirements are related to trust, truth, authenticity, and demonstrability in software systems

In our pilot interviews, we engaged with two practitioners: One from a technical role and the other from a management role.

You can REGISTER HERE to be a part of this study to share your experience with RTD!!!

Register Here!

TWO STAKEHOLDER PROFILES

Tech Profile

Role: Software Engineer
Domain: Security
Tasks: Coding, Time estimation, Client meetings, Time estimations
Qualifications: Masters in Computer Science
Experience: 4.5 years

Non-Tech Profile

Role: Project Manager
Domain: Government projects, Website designing
Tasks: Team and project management
Qualifications: Certification in Project Management
Experience: 12 years

VERACITY PERSPECTIVE OF SOFTWARE PRACTITIONERS

Tech Profile

"making sure the software product is secure and trustful towards everyone, right?"

"100% someone to rely or trust your product"

Non-Tech Profile

"We add value and it's reliable and it's related to the context of the applications going to be used."

"veracity also gave me certainty about why we are doing what we are doing"

IMPORTANCE OF VERACITY RELATED SOFTWARE REQUIREMENTS

Both practitioners mentioned that it would be important to quanitfy Veracity Debt but those requirements would arise based on the general software requirements.

"It would be important to quantify the veracity requirements like the technical debt would that would be added up if you do not comply with a veracity requirement. But as I understand that would be coming because of the software requirement that you take."

"veracity requirements actually help to shape the general requirements. Definitely, it saved time and cost."

MOST RELATABLE VERACITY TYPES

1. **DATA**
2. **REGULATORY**
3. **PROCESS**

The importance of the different veracity types depends on the project, the company and the end-users

RTDQM CONCEPTS THAT PRACTITIONERS FOUND USEFUL TO BE QUANTIFIED

New work cost	*"Entire system required migration from old technology but was delayed prioritization"*
Rework cost	*"Bad UI design resulted as a consequence of RTD. This resulted in rework."*
Prioritization	*"Entire system required migration from old technology but was delayed prioritization."*
User needs	*"User needs were checked by a pilot test with a few users."*
RTD Interest	*"Years of work had got accumulated due to delay in migration."*

TOOLS & TECHNIQUES IN PRACTICE FOR QUANTIFICATION AND DECISION MAKING

- JIRA
- TRELLO
- VERACODE
- FLOWCHARTS
- MS EXCEL
- COLOR CODING SEVERITY LEVELS
- ASANA

QUANTIFICATION

Practitioners more often tend to quantify costs, benefits and consequences **informally**.

Formal Quantification example: in person-hours/ story points/ dollars or other currency

Informal Quantification example: expectation of extra costs

"need to hire a new designer. There was an extra cost ."

"software developers as we would have been more satisfied."

"The development would have been faster because there were more resources out there that could help guide us."

"I think maintenance would be a bit hard"

"if you didn't abide to that particular regulation, then your tools will not be marketed in that region"

"the application itself Could be breached sometimes if we hadn't followed the correct process procedures

KEY FINDINGS

1. The top 3 veracity types most relatable were Data, Process and Regulatory.

2. According to practitioners there is a relationship between data veracity, process veracity and regulatory veracity.

3. Practitioners agreed that quantifying veracity debt is useful in decision making. *"It would be important to quantify the veracity requirements like the technical debt would that would be added up if you do not comply with a veracity requirement."*

4. According to practitioners the order of priority of veracity types depends on the product, company and user-needs.

5. Practitioners agreed that cultural veracity would be important and relevant in NZ. *"I I think ithis sort of work is going to impact New Zealand audience, yes. It's a the major question to consider for your requirements."*

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