Trust in Requirements Elicitation: How Does it Build, and Why Does it Matter to Requirements Engineers?
Requirements Engineering

Defining, documenting and maintaining requirements of an information systems
Requirements Elicitation

Collecting requirements of an information system from users, customers and other stakeholders

Relies heavily on interaction and communication with stakeholders
Trust
Trust

- One party (trustor) is willing to rely on the actions of another party (trustee) (Moorman 1992)

- The trustor abandons control over the actions performed by the trustee (Schoorman 2007)
Toward a Research Question:

- The trustor is uncertain about the outcome of the other's actions; they can only develop and evaluate **expectations**

- The uncertainty involves the risk of failure or harm to the trustor if the trustee will not behave as desired

- **Research question:** Does Trust/distrust influence the quality of Requirements Elicitation?
Trust in the Analyst (TIA) the intention of a stakeholder to accept being vulnerable to some perceived risks by working with a given analyst who is in charge of collecting, treating and documenting his/her requirements;
Trust in the Stakeholder (TIS)
The intention of an analyst to accept being vulnerable to some perceived risks by collecting from a given stakeholder information about requirements from a system-to-be and/or information about the environment of that system-to-be.
Research Methodology

- Literature review of factors influencing trust in a communication context
- Evaluated those factors in a survey involving 35 Business Analysts (for TIS) and 22 stakeholders (for TIA)
- Repeated measures ANOVA with a Greenhouse-Geisser correction for the data treatment
## Determinants of Trust

<table>
<thead>
<tr>
<th>Determinant</th>
<th>Dimension</th>
<th>High</th>
<th>Low</th>
<th>Description of the High (Low) Factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expertise</td>
<td>People</td>
<td>Expert</td>
<td>Novice</td>
<td>the Trustor believes the words or written statements of the Trustee can (cannot) be relied on, due to (lack of) knowledge background</td>
</tr>
<tr>
<td>Likability</td>
<td>People</td>
<td>Friendly</td>
<td>Unkind</td>
<td>the Trustor finds the Trustee friendly (unfriendly), and find it pleasant (unpleasant) to spend time with the latter.</td>
</tr>
<tr>
<td>Power</td>
<td>People</td>
<td>Manager</td>
<td>Employee</td>
<td>the Trustee occupies a job that implies relatively high (low) responsibilities and hierarchical power.</td>
</tr>
<tr>
<td>Commitment</td>
<td>People</td>
<td>Concerned</td>
<td>Uncaring</td>
<td>the Trustee sees the collaboration with the Trustor as a long-term (short-term) relationship.</td>
</tr>
<tr>
<td>Loyalty</td>
<td>Attitude</td>
<td>Devoted</td>
<td>Distant</td>
<td>the Trustee has (no) time to devote to the Trustor, and is (not) actually willing to help the latter to solve its problems.</td>
</tr>
<tr>
<td>Consistency</td>
<td>Attitude</td>
<td>Directed</td>
<td>Undirected</td>
<td>the Trustee is constant (unsteady) about the design decisions made in the past, and/or avoids (makes) unexpected changes.</td>
</tr>
<tr>
<td>Receptivity</td>
<td>Attitude</td>
<td>Open-minded</td>
<td>Conservative</td>
<td>the Trustee welcomes (rejects) new ideas and listen to (discourages) additional remarks about the system-to-be.</td>
</tr>
<tr>
<td>Reciprocity</td>
<td>Attitude</td>
<td>Advisor</td>
<td>Collector</td>
<td>the Trustee provides (keeps) information to (from) the Trustor, and do not (do) only collect information from the latter.</td>
</tr>
<tr>
<td>Structure</td>
<td>Business</td>
<td>Large</td>
<td>Small</td>
<td>the business of the Trustee is large (small), with many (few) sub-entities such as teams, groups, departments, etc.</td>
</tr>
<tr>
<td>Culture</td>
<td>Business</td>
<td>Convergent</td>
<td>Divergent</td>
<td>the business of the Trustee has a vision of the world and a set of values that fit (do not fit) with those of the Trustor.</td>
</tr>
<tr>
<td>Reputation</td>
<td>Business</td>
<td>Renown</td>
<td>Unknown</td>
<td>the business of the Trustee has been successful in many different (few) projects similar to the one of the Trustor.</td>
</tr>
<tr>
<td>History</td>
<td>Business</td>
<td>Collaboration</td>
<td>Project</td>
<td>the business of the Trustee has a long (short) experience of collaboration with the company of the Trustor.</td>
</tr>
</tbody>
</table>
Results
"More is Better" factors

TIS
- Commitment
- Consistency
- Culture
- Expertise
- History
- Likability
- Loyalty
- Power
- Reciprocity
- Reputation

TIA
- History
- Reputation
Moyennes marginales estimées de Trust

Moyenne marginale estimée

Survey_Setting
"Avoid Extremes" factors

**TIS**
- Receptivity
- Structure

**TIA**
- Commitment
- Consistency
- Culture
- Expertise
- Loyalty
- Reciprocity
Moyennes marginales estimées de Trust

Survey_Setting

Moyenne marginale estimée
"Less is Better" factors

**TIS**

**TIA**

- Likability (1)
- Power (1)
- Receptivity (1)
- Structure (2)
Moyennes marginales estimées de Trust

Study_Setting
"Less is Better" factors

**TIS**

**TIA**

- Likability (1)
- Power (1)
- Receptivity (1)
- Structure (2)
Does Trust Matter to Discuss those Topics? (Average Trust Rating)

**YES (1.33)**
- The financial and IT strategy of your company
- The types of relationships that exist between workers in your company
- The measures that your company uses to evaluate its internal success
- The best practices in your company
- The reason why your company needs a new system
- The locations where the system should be accessed
- The hierarchical level of the users of the system
- The various actors who will use the future system
- The history and evolution of your company over the last ten years
- Specific elements about your company
- The laws and other standards that are applicable in your company
- The different departments and teams that compose your company

**NO (-1.18)**
Conclusion

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Conclusion

Question?

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