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Can Social Awareness Foster Trust Building in Global Software Teams?

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How to Build Trust in Global Software Teams?

Meeting Room




Remote Conferencing



Informal Communication

Social Networks

 **Our proposal:** Aggregate developers' personal content from social media into the developer's workspace to surrogate social awareness



Theoretical Model

Cognitive Trust

PREDICTABILITY

The degree to which a person is liable and accountable and meets the expectation of another person

ABILITY

Capability of a trustee (based on knowledge, competence, skills) to perform tasks within a specific domain

Trustee's antecedents to trust

Affective Trust

INTEGRITY

The adherence to intrinsic moral norms which makes a trustee reliable

BENEVOLENCE

The perceived level of courtesy and positive attitude

Trustor's antecedent to trust

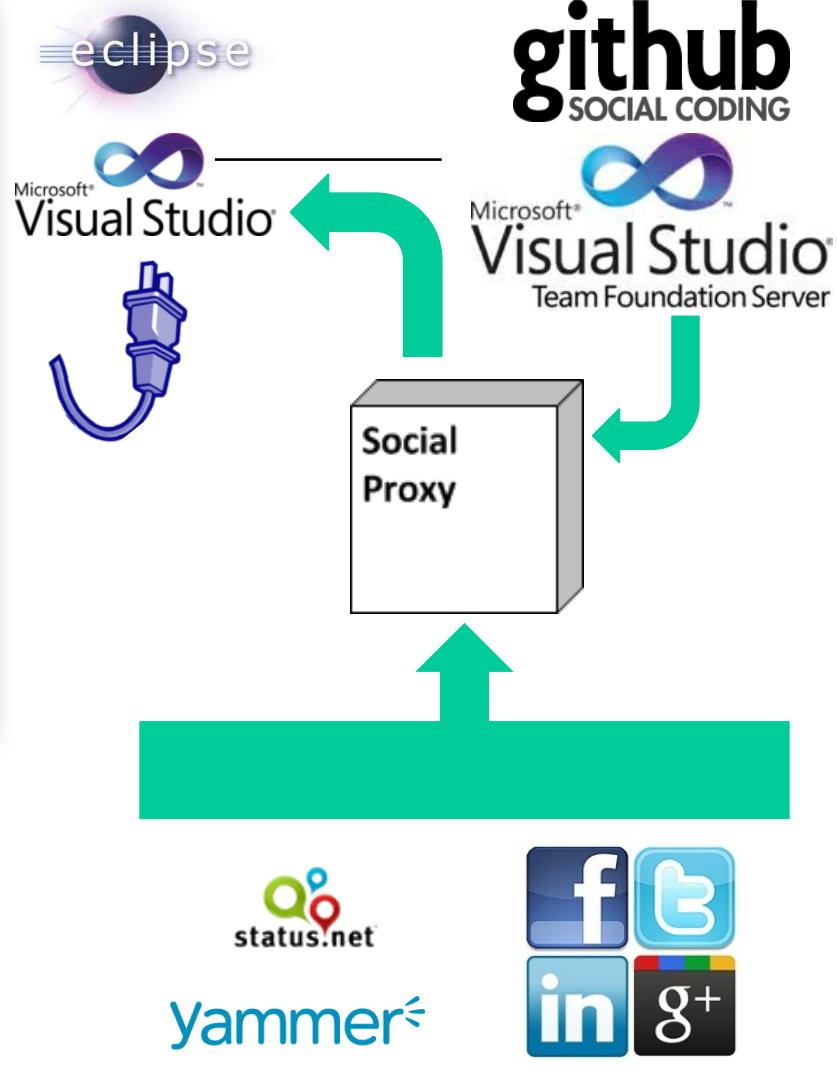
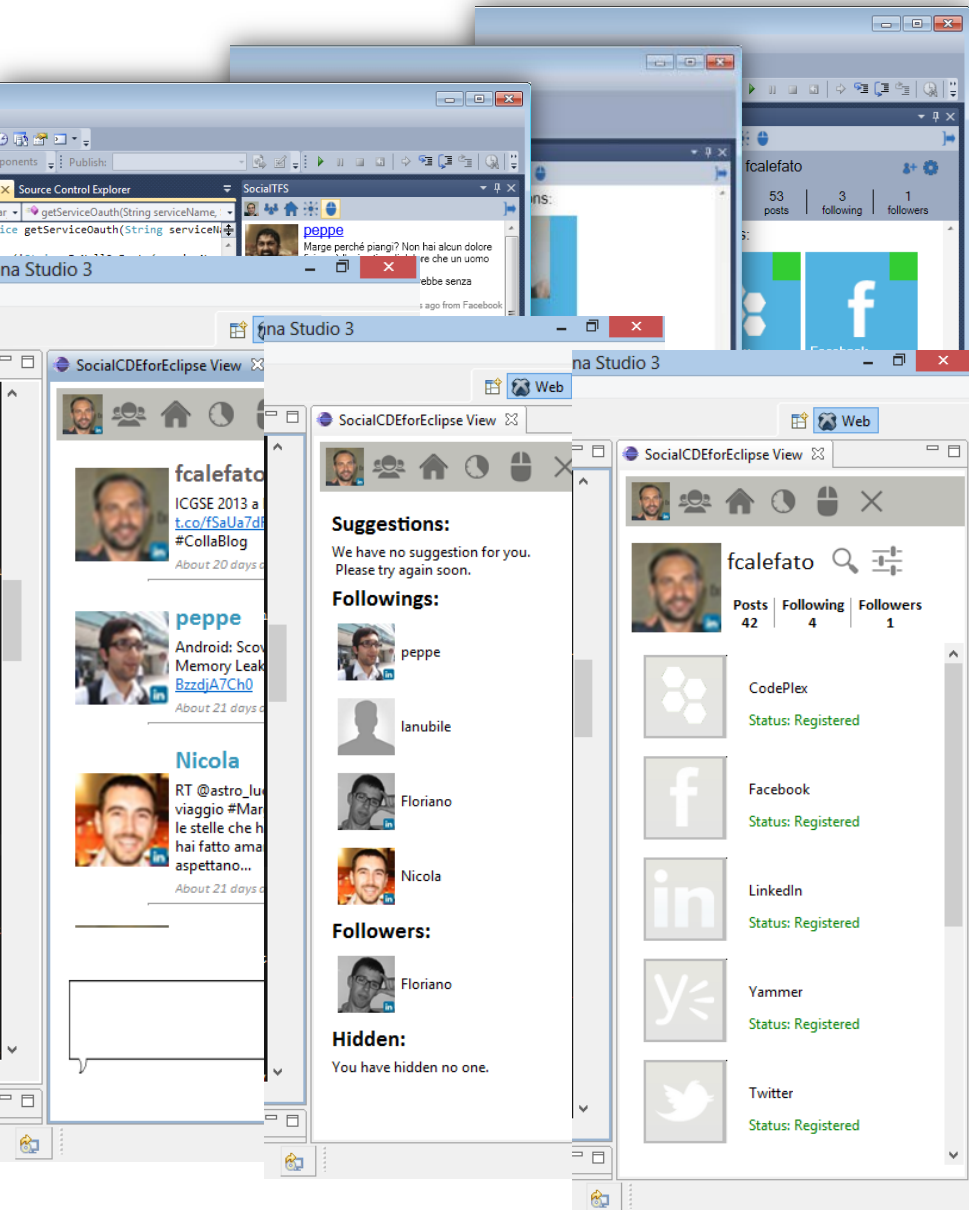
PROPENSITY TO TRUST

A general, not experience-based inclination to display faith and adopt a trusting attitude toward others



THE TOOL

The SocialCDE Project



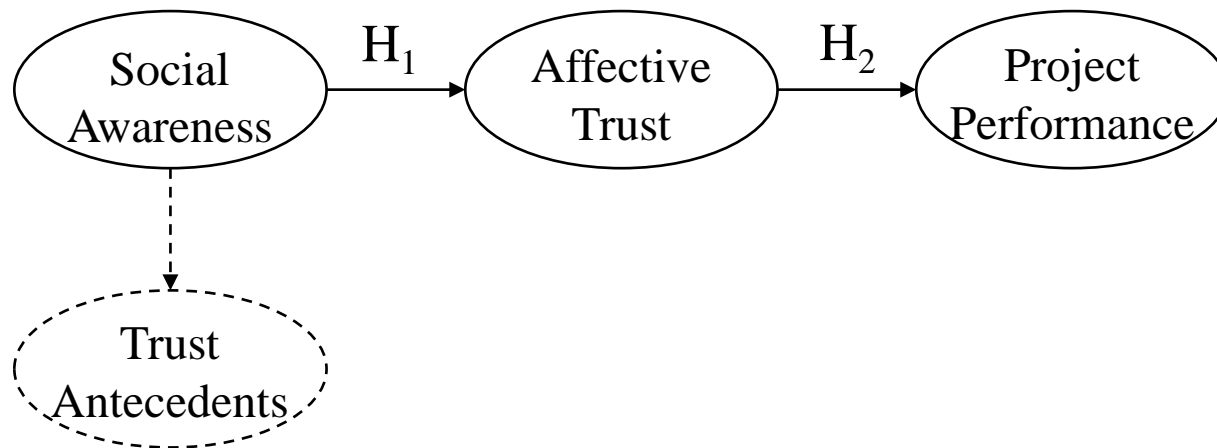


THE STUDY DESIGNS



Research Model & Hypotheses

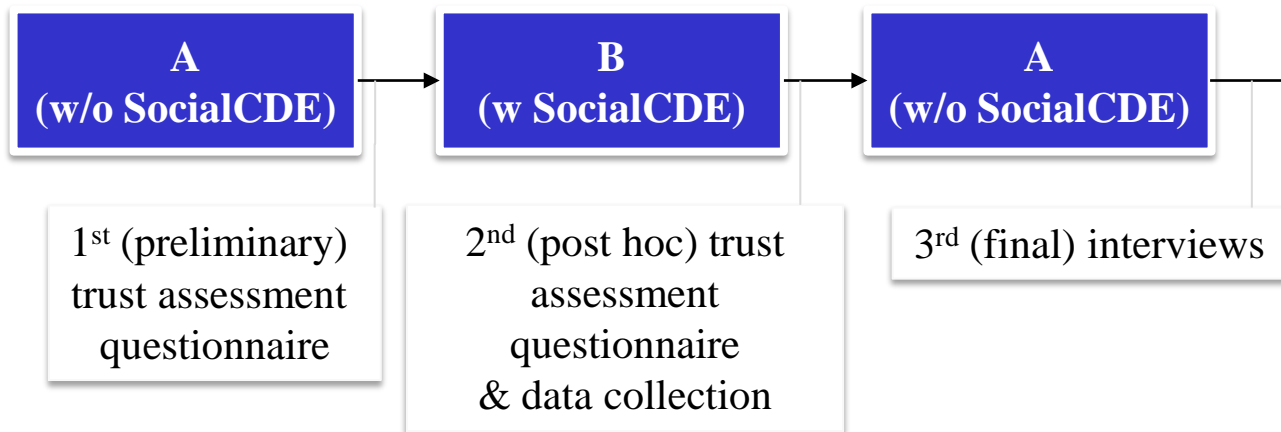
- H_1 - *There is a positive relationship between the amount of social awareness gained through social media and the level of affective trust mutually established among distant teams*
- H_2 - *There is a positive relationship between the level of affective trust mutually established among distant teams and project performance*





Field study

- One small team (7 members)
- Open source project "I Speak Again" sponsored by ISF non-profit organization
- Sociotechnical prerequisites:
 - Aptana + GitHub as development platforms
 - Team partially distributed and not fully established
- A-B-A experimental design



Controlled experiment (1/2)

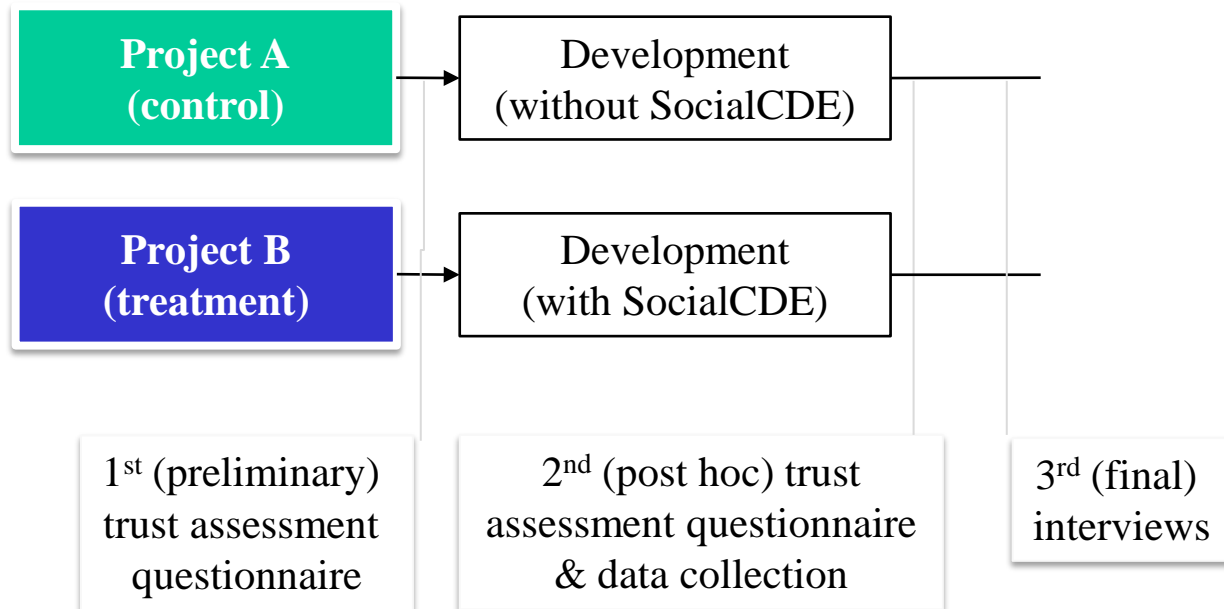


- Two different agile teams (5 / 6 members)
 - 3 developers (interns at PUCRS, Porto Alegre, BR)
 - 1 team leader (senior lecturer at PUCRS)
 - 1 / 2 product owners (real customers)
- Sociotechnical prerequisites:
 - Visual Studio and Team Foundation Server as development platforms
 - Teams partially distributed and not fully established
 - Projects comparable in size



Controlled experiment (2/2)

- Project A → control group
 - Use Visual Studio as is
- Project B → treatment group
 - Use Visual Studio augmented with SocialCDE





Conclusions

- Hypothesized that information shared on social media can surrogate the social awareness on which affective trust grows
 - Presented SocialCDE, a tool developed to support our investigation
- Discussed the designs of two studies
 - Field study is ongoing (slowly...)
 - Controlled experiment is on hold
- Future work
 - Analyze collected data
 - Further experiments adjusted according to findings