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# Building Trust through Social Awareness: The SocialCDE Project

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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*

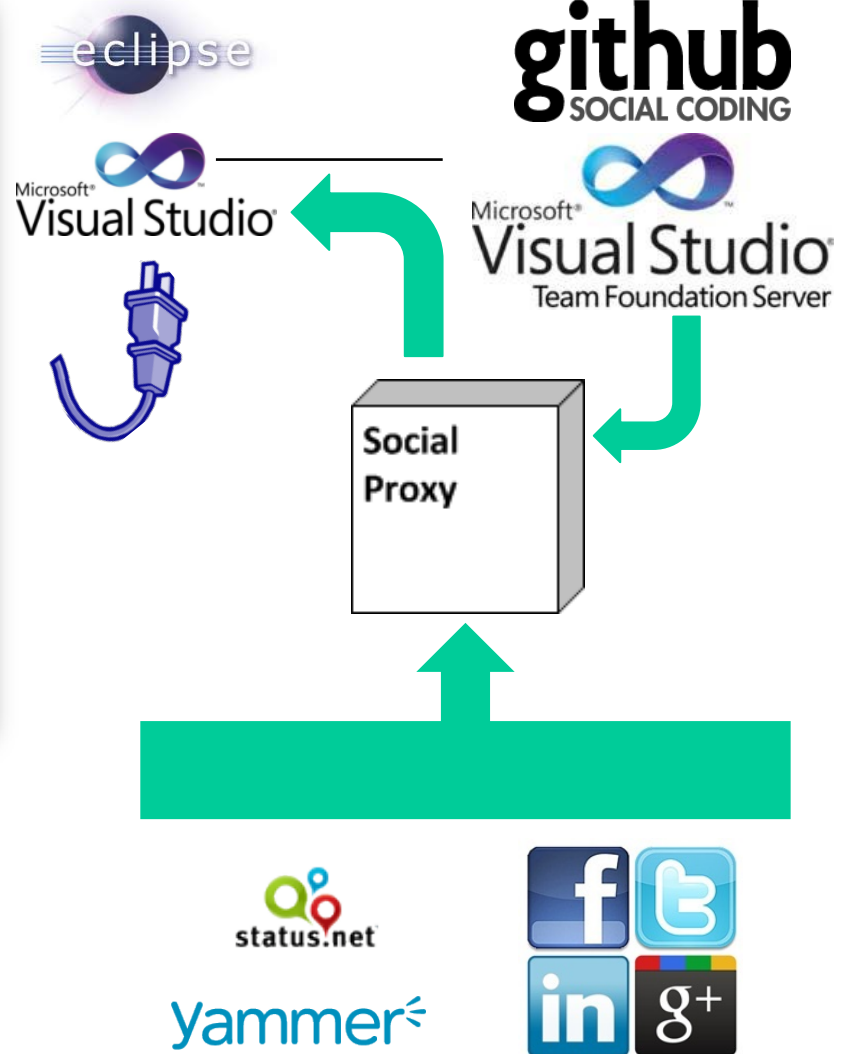
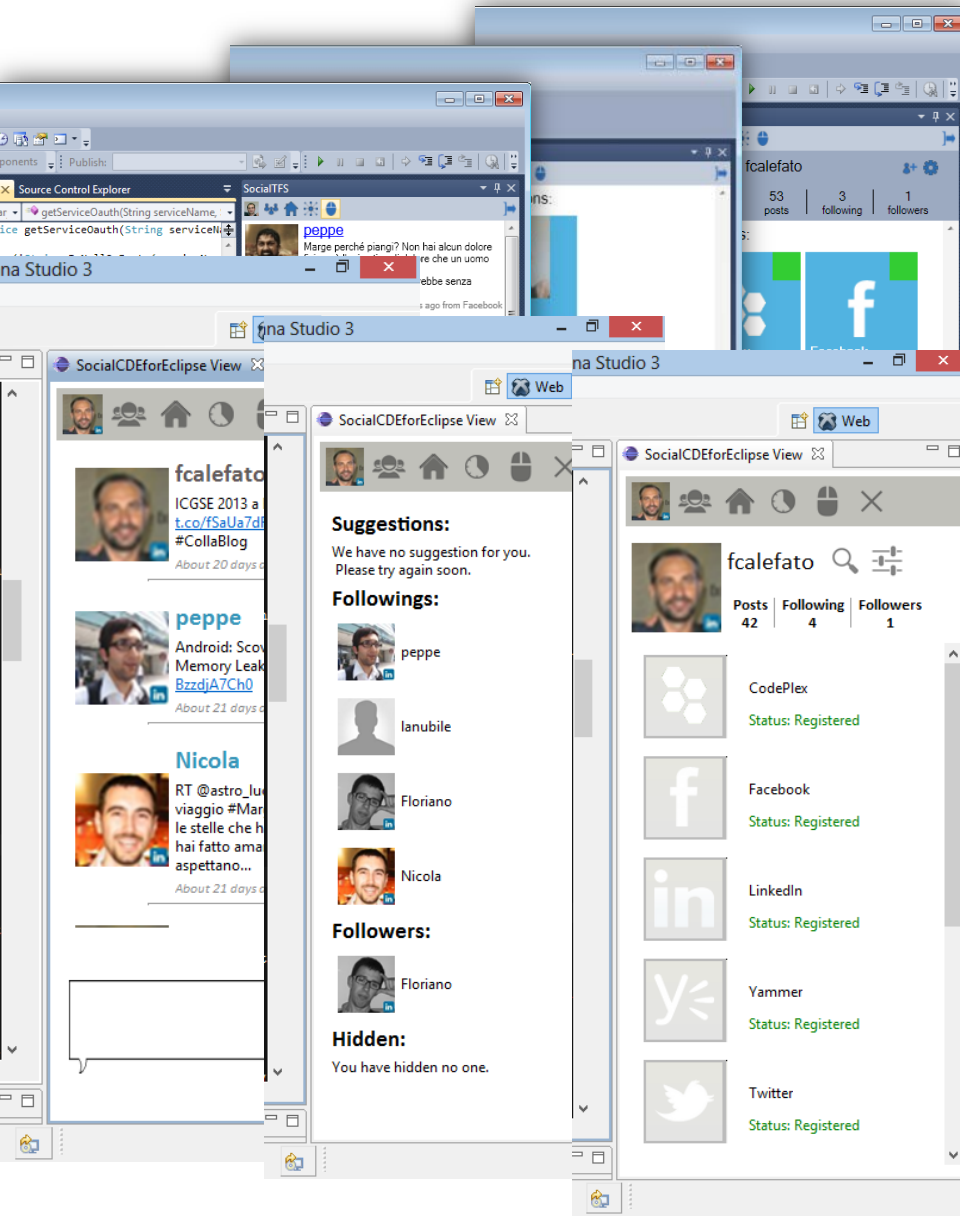
## PROPENSITY TO TRUST

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



**THE TOOL**

# The SocialCDE Project



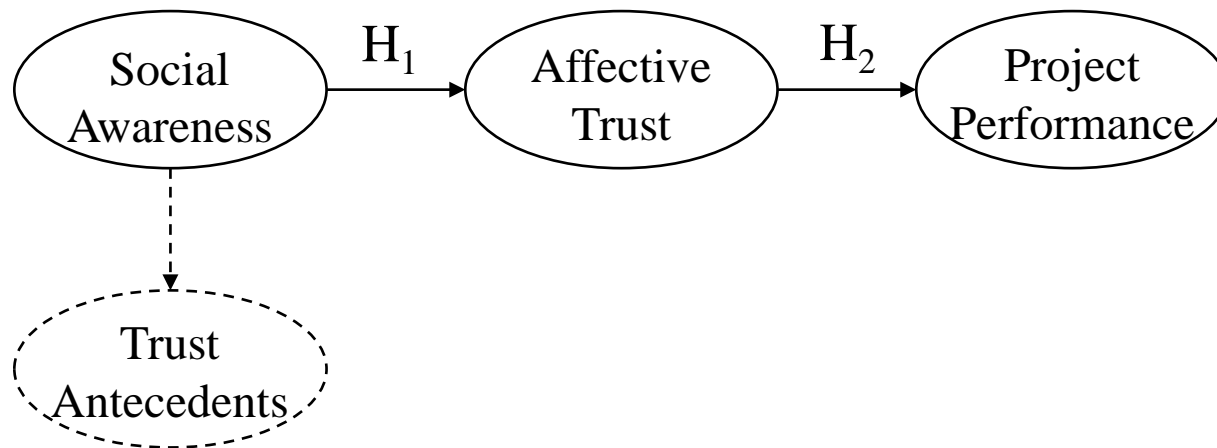


# THE STUDY DESIGNS



# Research Model & Hypotheses

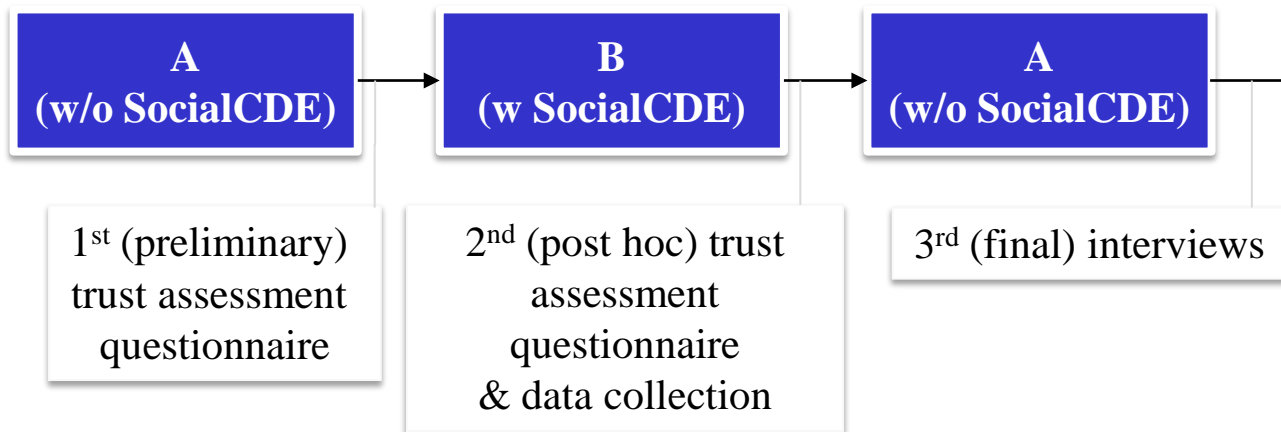
- $H_1$  - *There is a positive relationship between the amount of social awareness gained through social media and the level of affective trust mutually established among distant teams*
- $H_2$  - *There is a positive relationship between the level of affective trust mutually established among distant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

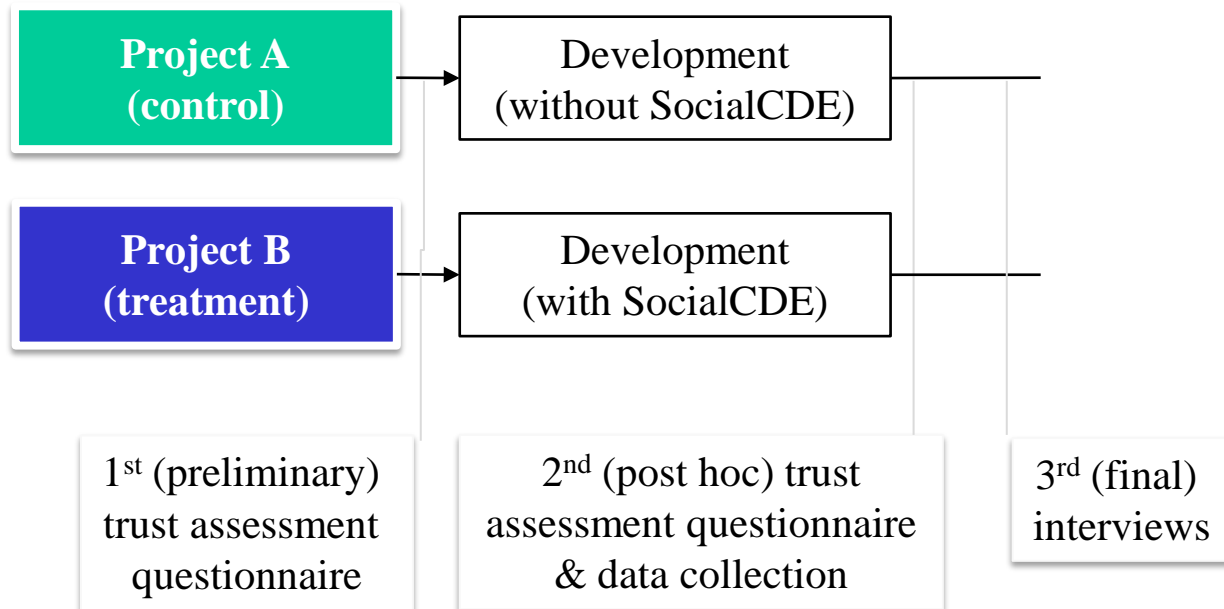


- Two different agile teams (5 / 6 members)
  - 3 developers (interns at PUCRS, Porto Alegre, BR)
  - 1 team leader (senior lecturer at PUCRS)
  - 1 / 2 product owners (real customers)
- Sociotechnical prerequisites:
  - Visual Studio and Team Foundation Server as development platforms
  - Teams partially 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