Social Media and Trust Building in Virtual Teams:

The Design of a Replicated Experiment

Fabio Calefato
Postdoc research assistant
*CMC and Global Software
Engineering*

Filippo Lanubile
Associate professor
*CSCW, social software
engineering and distributed
software development*

Nicole Novielli
Postdoc research assistant
*HCI, NLP and affective
computing*

COLLAB - Collaborative Development Group
http://cdg.di.uniba.it

Personal research interests

- Help to overcome challenges of distance in Global Software Engineering
  - The lack of *communication*, *awareness*, and *trust*

- Previous work
  - F. Calefato, F. Lanubile, and N. Novielli, "*Investigating the Effect of Social Media on Trust Building in Customer-Supplier Relationships*" (submitted to *Electronic Commerce'13*).
  - F. Calefato and F. Lanubile, "*Social Awareness Tool for Global Software Teams*", 7th Int'l Conf. Global Sw. Eng. (*ICGSE'12*).
  - F. Calefato and F. Lanubile, "*Augmenting Social Awareness in a Collaborative Development Environmen*t", 5th Int'l Workshop on Cooperative and Human Aspects of Sw. Eng. (CHASE'12).

Workshop expectations

#1

What

- Present the design of a replicated experiment on the effects of social awareness on trust building in virtual teams

When

- This talk and group discussion (Session 1)

#2

What

- Critically discuss SocialTFS tool – (missing) features, suggest experimental design, trust measures...

When

- Group discussion only (Session 3 – Tool design)

Trust Model

ACCOUNTABILITY
The degree to which a person is liable and accountable meets the expectations of the trustor

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

COMMUNALITY
Between the trustor and the trustee based on personal characteristics

INTEGRITY
The intrinsic moral norms of a trustee guard his action with (e.g. sincerity, discretion, honesty)

BENEVOLENCE
The perceived level of courtesy and positive attitude

Cognitive Trust
(Schumann et al. 2012)

Affective Trust
(Schumann et al. 2012)

TWAN model
(Rusman et al. 2010)

The Replicated Experiment Design

Setting

- Trust building based on first impression
- Three information element conditions
  - (E) Expertise information
  - (P) Personal information
  - (SN) personal information through Social Network
- Two information sources:
  - Profile page (static - P & E)
  - Social Media (dynamic - SN)

Hypotheses

From the original study
Schumann et al. (2012)

- H1 – Knowing *personal information* leads to higher *affective* trust
- H2 – Knowing expertise information leads to higher *cognitive* trust
- H3: *Social awareness* enhances *affective* trust in virtual teams
  - Social Network (SN) based provision of information

New research hypothesis