NCSU Science of Security Lablet
Transitional Relevance and Research Summary Statement

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Hard Problem Area: Policy-Governed Secure Collaboration

Overall Research Goal(s):
What do you ultimately hope to show with your research? This section can involve some jargon, but try to relate these goals to your broad impact section. Start with the larger goal(s) and narrow the scope towards your specific study (and specific goals, below).

Social applications are the ones that cater to multiple users including primary users, who directly interact with the application, and secondary users, who are affected by the use of the application. In social applications, privacy is not just limited to information disclosure, but also includes broader notions of intrusion and disapprobation.
The overall goal of the project is to develop ARNOR, a norm-based methodology to engineer privacy-aware social applications.

Broad Impact:
Why is your research important? This section should avoid any technical jargon and should be meaningful to the general public. Try to keep this down to five sentences. This should be hierarchical: the broad impact decomposed into more specific impacts that connect your overall research goals to your more specific goals.

We envisage that a methodology which can capture social requirements, social expectations and effects of social requirements on social expectations, can assist developers to engineer social applications that promotes better experience and greater social utility.

Specific Research Goals:
Lay out the steps you are going to take to achieve your overall research goal. You can get technical here.

- Develop a methodology that can assist developers to capture user's goals, social requirements, social expectations and effects on social expectations as application is put to use
- Develop a pseudo-real test bed to simulate working of social applications

Proposed Data Collection (if applicable):
What data will you collect to answer your research goals? How will you collect it? Will it be an observational study, randomized comparative experiment, or simulation study? Include potential biases and be prepared to explain how the data will achieve your specific research goals.

- Developer study
    - Pre-participation survey
        - Educational background

        - Programming experience
        - Industrial experience
    - During study
        - Time and effort expended in different aspects of development
    - Post-participation survey
        - Difficulty
- Simulation study
    - Time ticks for norms to emerge
    - Social utility at each time tick

Success Criteria:
How will you determine whether you satisfied your specific and overall research goals?

- Developer Study
    - Models produced using ARNOR are of better quality, compared to models produced using traditional goal modeling approaches
    - Developers expend less time and effort to engineer applications using ARNOR, compared to traditional goal modeling approaches
- Simulation Study
    - Social applications developed using ARNOR promote greater social utility, compared to applications developed using traditional approaches

Anticipated Difficulties, Limitations, and Criticisms:
What will make the above specific research goals difficult to achieve? How do you plan on dealing with these difficulties if they arise?

- Developer Study
    - Skill difference
    - Participants forgetting to report data
- Simulation Study
    - Capturing realism in test-bed