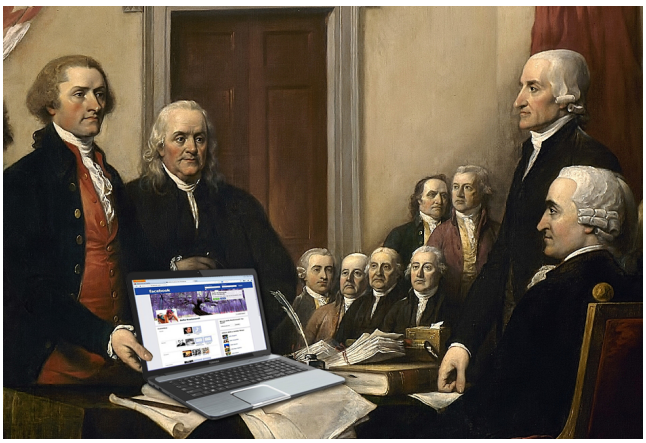
Thesis Proposal (MA)

Privacy-Aware Access Control for the IoT

Outline

Smart Spaces are spaces where you can control functionality of the environment via software. We are developing a middleware for this task for several years now. It is called Virtual State Layer (VSL).



An important aspect when managing Smart Spaces is data privacy. Who *owns* certain data? A service, a human, etc. Which are desirable *dissemination ranges*? Which are data *lifetimes*? Which *complexity* is needed? Which are privacy-relevant properties? Which metrics describe them? How can the emerging complexity remain *usable*? These and similar questions are to be answered within this thesis.

Possible Structure

- Analysis
  - Review on access control patterns.
  - Analysis of the VSL and Smart Spaces for identifying relevant access patterns/ scenarios.
- Related work
  - What do other projects do that answer related questions?
- Design
  - Which components do you need?
  - Which are options for the design? Why are your choices good?
- Implementation
  - Frameworks used, screenshots, etc.
- Evaluation
  - How well does it work?
    - Metrics!

Requirements

Curiosity, Joy to work in a team, Knowledge in Java.
Ability to write good code (including unit tests and documentation).

Contact

If you are interested, please send an email briefly explaining why you think to be the right person for this thesis to:

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Distributed Smart 2pace Orchestration System

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