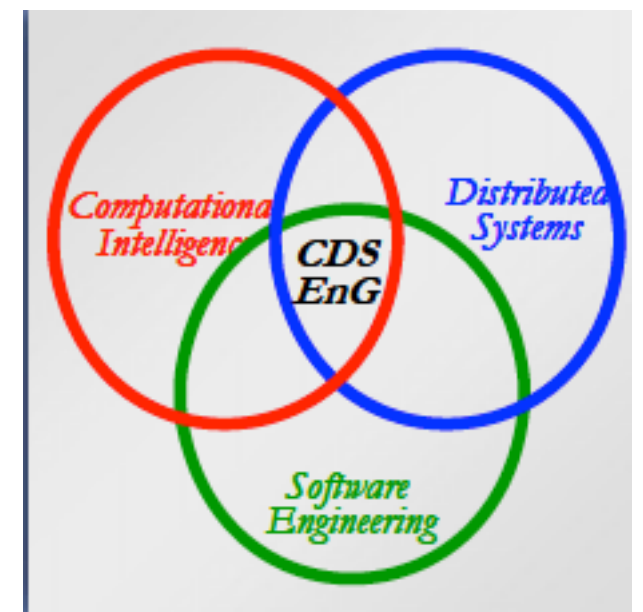# Privacy in Cooperative Distributed Systems: Modeling and Protection Framework

by

Afshan Samani

"A thesis submitted in partial fulfillment of the requirements for the degree of Doctor of Philosophy"

- Reaction Paper 2

Evolution from CDS Agent to Privacy-Aware Agent

- **CDS Agent Model and Privacy Analysis**

- **Privacy-Aware Agent Model**
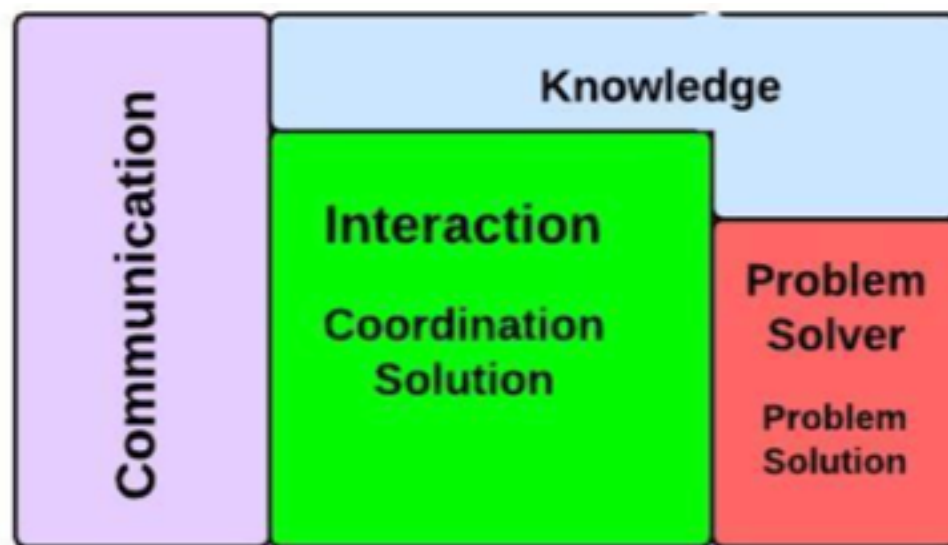
Agent Based Model to Privacy Model
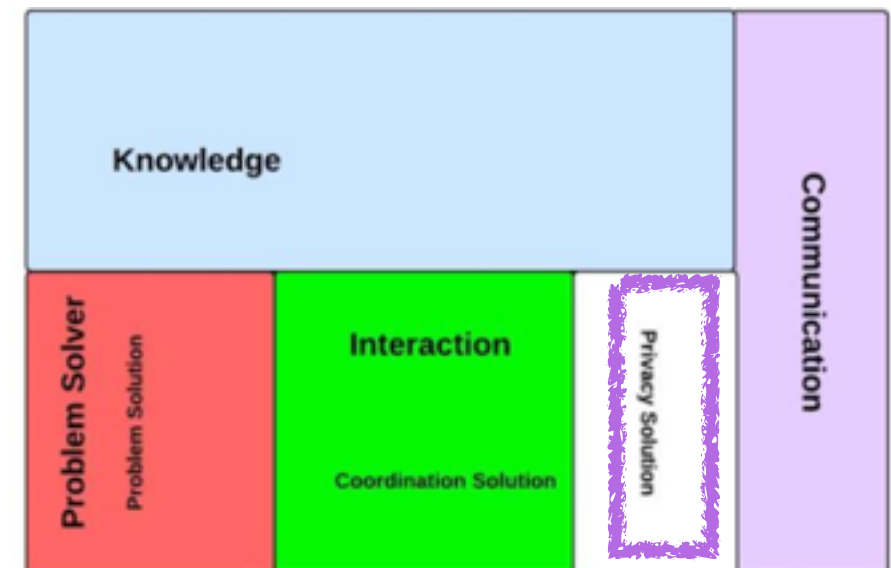

Figure 1. Computation Entity in CDS

Figure 5. Privacy solution in relation with interaction in the computation entity in CDS environment

Privacy Model concerns **Information** boundary and **Operation**
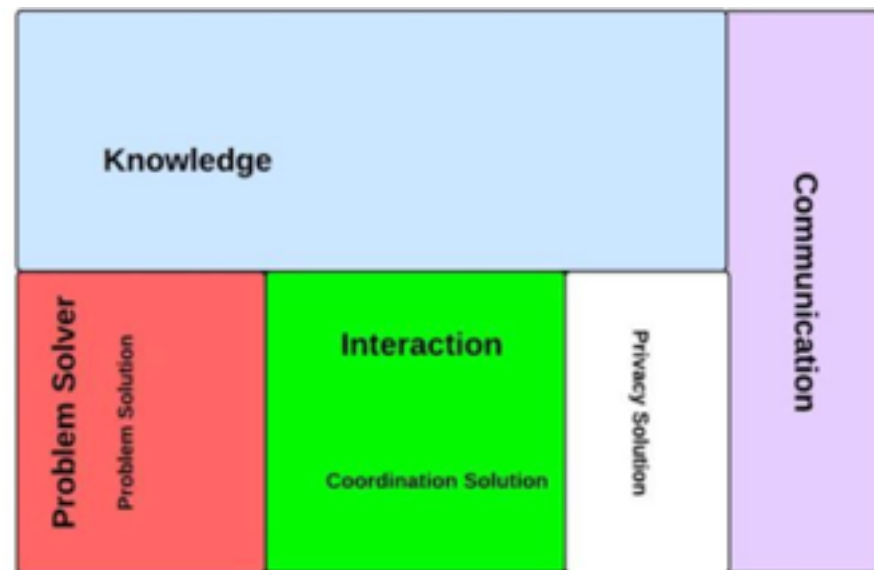
Privacy-Aware Agent Model

Figure 5. Privacy solution in relation with interaction in the computation entity in CDS environment

Figure 6. The logical architecture of privacy protection management in computation entity in CDS environments

Privacy Protection Management:
- **Exposure Boundary**
- **Sensitive Information**
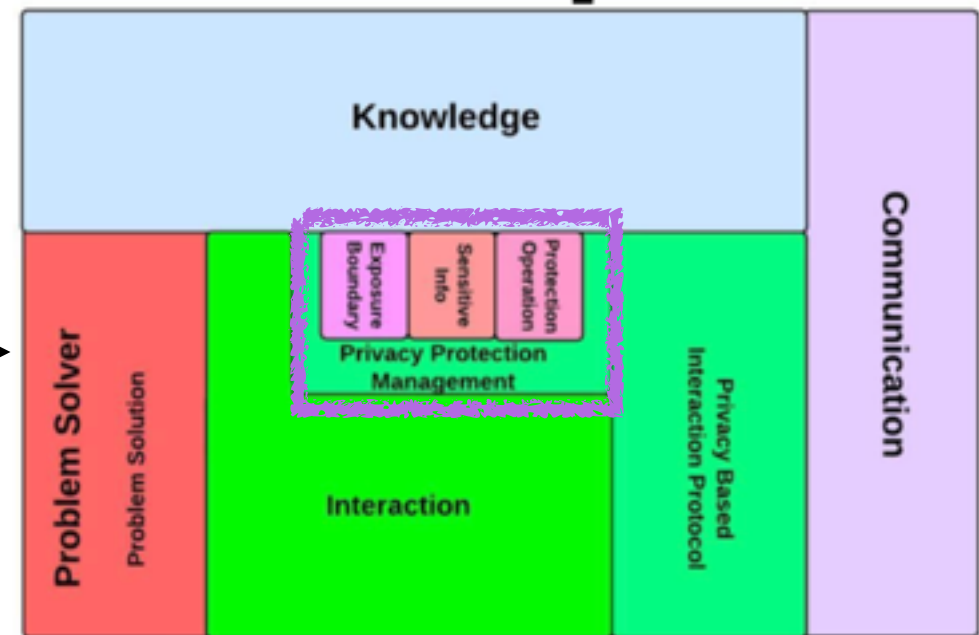- **Protection Operation**

Reactions On Privacy Model

- How to design an Agent
  Knowledge - Problem solver - Interaction - Communication

- How to identify the Privacy-Aware Agent
  Sensitive Information - Sharing Boundary - Privacy
  Operations(implicit to explicit)

Conclusion

- **Privacy As Computation Model**
- **Thinking Pattern in CDS**

Next Step

- **Future implementation Plan**