

Achieving Multiagent Organisation by Organising Agent Experience

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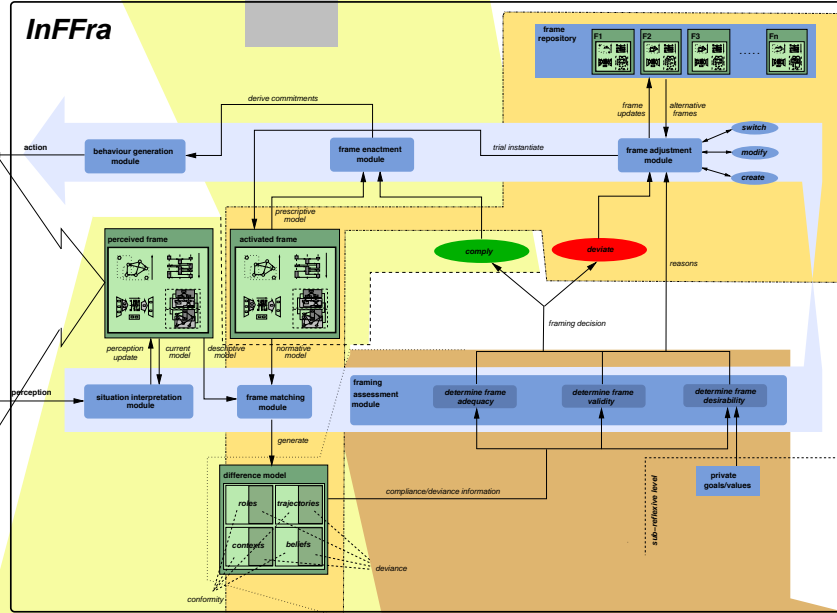
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InFFra – A Social Reasoning Architecture based on "frames" and "framing"

Enactment Process

- the current frame is used as normative knowledge ("routine")
- Frame knowledge is extended by further experience
- Social level influence on agent action

InFFra



Re-Framing & Trial Instantiation Process

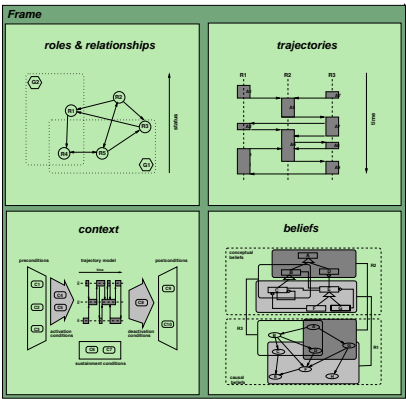
- "Re-framing": identification of alternative frames
- Usage of the reasons for abandonment of the previous frame
- Options
 1. Create new frame
 2. Adjustment of the current frame
 3. Selection of a more adequate frame from the repository
- Iterative instantiation ("mock-activation") of potential alternatives, until a suitable frame is found
- Use of sociological heuristics
- zentrale Lernkomponente der Architektur
- Important issue: frame repository management

Situation interpretation and frame matching process

- The current situation is interpreted in terms of a frame
- This perceived frame is matched against the currently active frame
- A "difference model" is derived
- Information about compliance and deviance is used to determine the agent's reaction

Framing assessment & Framing decision process

- information about compliant and deviant aspects is used to assess
 1. adequacy
 2. validity
 3. utility
 of the currently active frame.
- integration of individual agent goals and preferences
- Framing decision – alternatives: maintain frame or "re-frame" (find more suitable frame)



- "Interaction frames" are data structures that contain information about a certain class of interaction situations with respect to

1. Roles & relationships
2. Trajectories (courses of action)
3. Contexts
4. Beliefs

- in the spirit of the sociological work of Erving Goffman we see them as models of interactional knowledge that are strategically employed by agents in order to succeed in their social environment