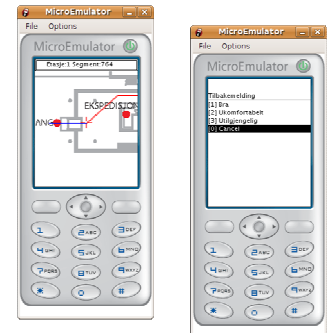# Ad-hoc social network support

Steinar Kristoffersen

Motivation: Not OurWay

Problems of explicit formation

- Participants do not see their role within the bigger network of action
- People see the network as a means to an end, and if the "end is near," i.e. The objective about to be reached, then the network is only a distraction

Problems of explicit formation

- The work needed ("to make the network work") is not focused upon
- People don't see the network as a community, i.e., the technical aspects may be manifest, but not the social implications

The alternative strategy

- Form the network implicity,
- Build on intentionality and efficacy
- Compile "snapshots" from processes to make models that can be replicated across settings

Supporting implicity

- Suggestion to rely on theories of labelled transition systems (LTS)
  - Existing, compact and solid theory
  - Lends itself nicely to automated reasoning
- Collecting "datagrams" from communication between agents is conceptually simple, but
  - Heterogeneous, and quite difficult to operationalize
  - Compacting strategies for reasoning and re-use are needed, but unfortunately complex

Challenges of such modelling

- Creating uniform representations from heterogeneous data
- Compacting the representation into models that we can analyze
- Making useful applications on top of the models, i.e. pedagogical presentations of the models
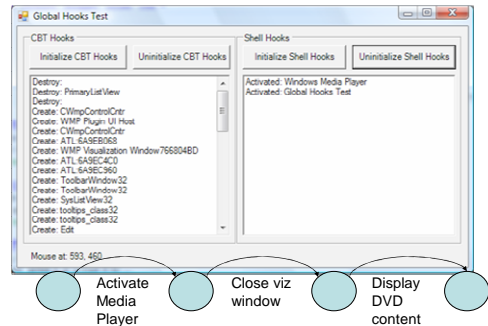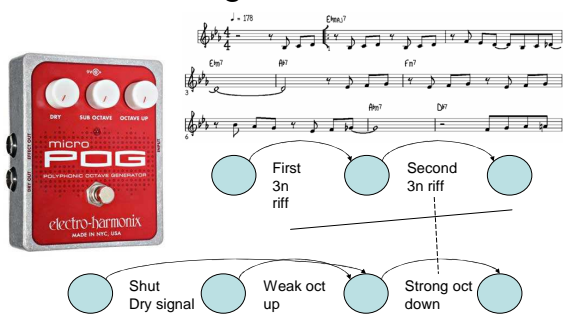
Ideal modelling outcomes
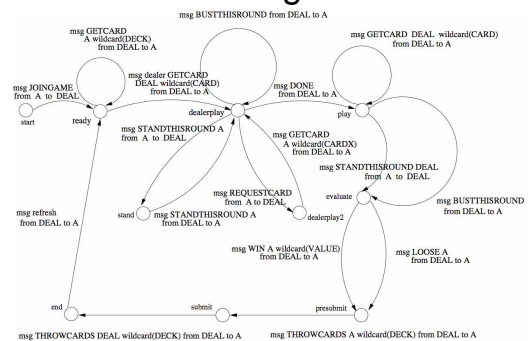
But in reality

- Structural: Hard to tell difference between a straight sequence
  - Cycles
  - Alternatives
- Semantic: When is a term the same as another, regardless of their lexical overlap
- Need to develop a set of heuristics in order to create powerful models
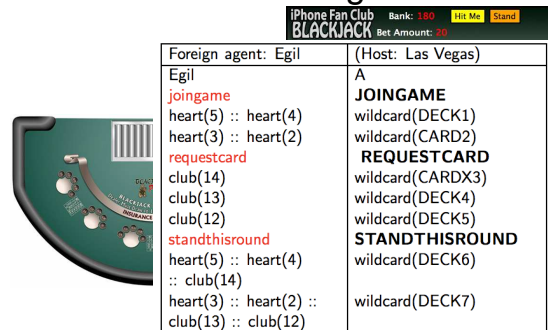- We are working out good examples of the ad-hoc formation of communities

IT support "by proxy"

Activate Media Player — Close viz window — Display DVD content

Modelling musical effects

First 3n riff — Second 3n riff

Shut Dry signal — Weak oct up — Strong oct down

Automatic integration

Foreign agent: Egil	(Host: Las Vegas)
Egil	A
joingame	JOINGAME
heart(5) :: heart(4)	wildcard(DECK1)
heart(3) :: heart(2)	wildcard(CARD2)
requestcard	REQUESTCARD
club(14)	wildcard(CARDX3)
club(13)	wildcard(DECK4)
club(12)	wildcard(DECK5)
standthisround	STANDTHISROUND
heart(5) :: heart(4) :: club(14)	wildcard(DECK6)
heart(3) :: heart(2) :: club(13) :: club(12)	wildcard(DECK7)

Conclusion

- Easy principle of datagram collection and strong formalisms for modelling ad-hoc social network support need heuristics to be viable
- Next step is to implement a LTS-engine for several example domains:

Questions?

– Sk@hiof.no
– Østfold University College
– Halden, Norway

Facebook example: Applications

QuickTime™ and a
TIFF (LZW) decompressor
are needed to see this picture.