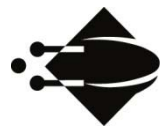


Declarative Modeling

An Academic Dream or the Future for BPM?

Hajo A. Reijers, Tijs Slaats, and *Christian Stahl*



IT University
of Copenhagen

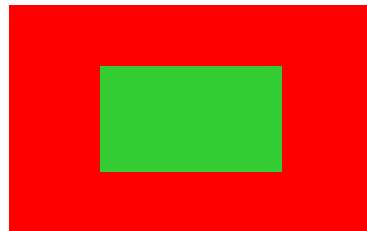
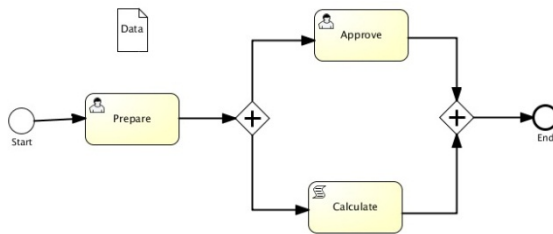


perceptive software
from Lexmark

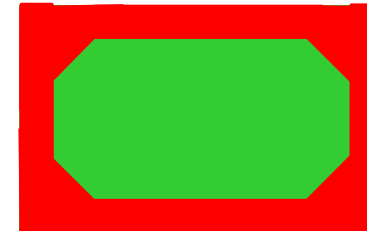
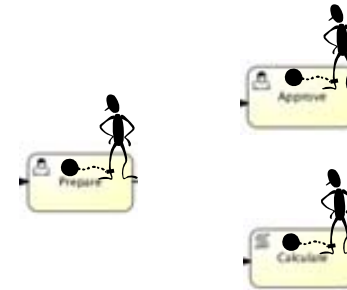


Modeling approaches

imperative

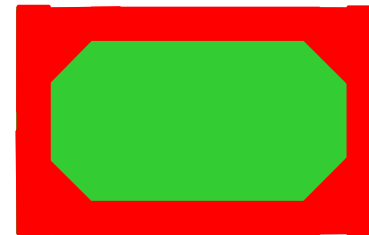


declarative



- overspecification
- underspecification
- academic and industrial tools and languages

Research question

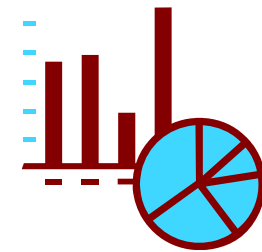
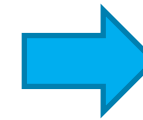


Outline

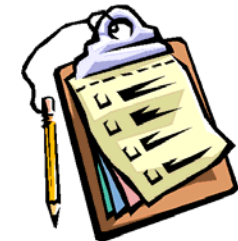
- Workshop



- Quantitative Evaluation



- Qualitative Evaluation



I. The method



Organization of the workshop

Intro to declarative modeling



Assignment

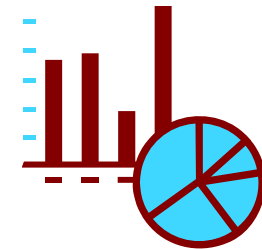


DCR-graphs



Discussion + Questionnaire





II. Quantitative Evaluation

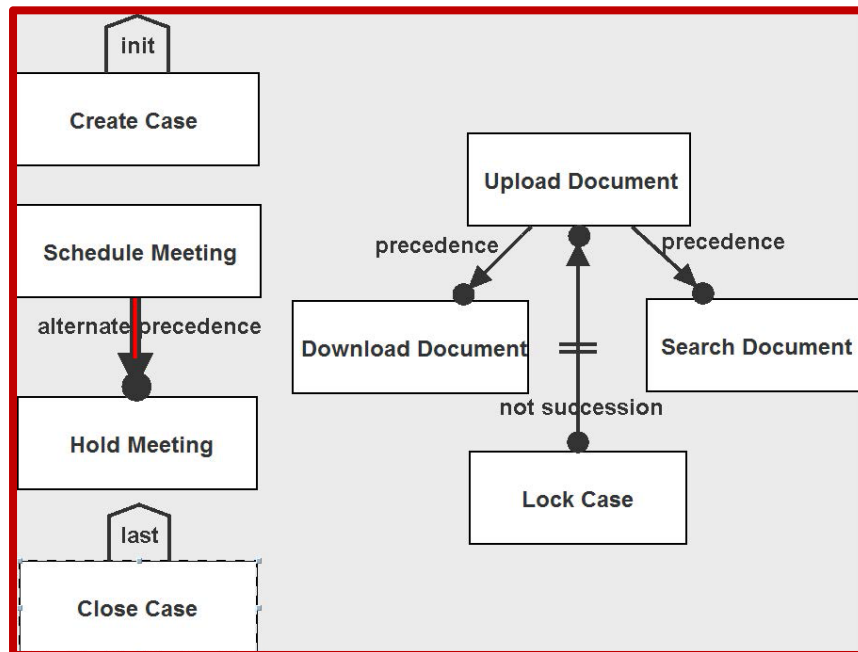
Participants

- Ten professionals
 - Five consultants
 - Five developers
- Average experience in BPM: >11 years
- Average #models read in last 12 months: 15

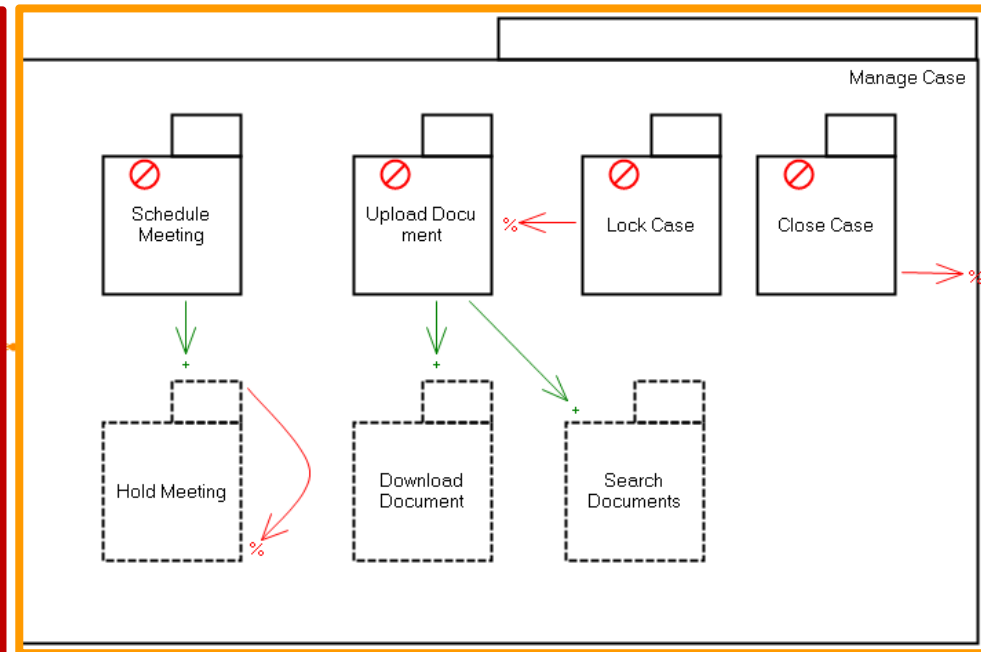
Insight 1: Technique does not matter

- consider usefulness and ease of use
- pen-and-paper evaluation

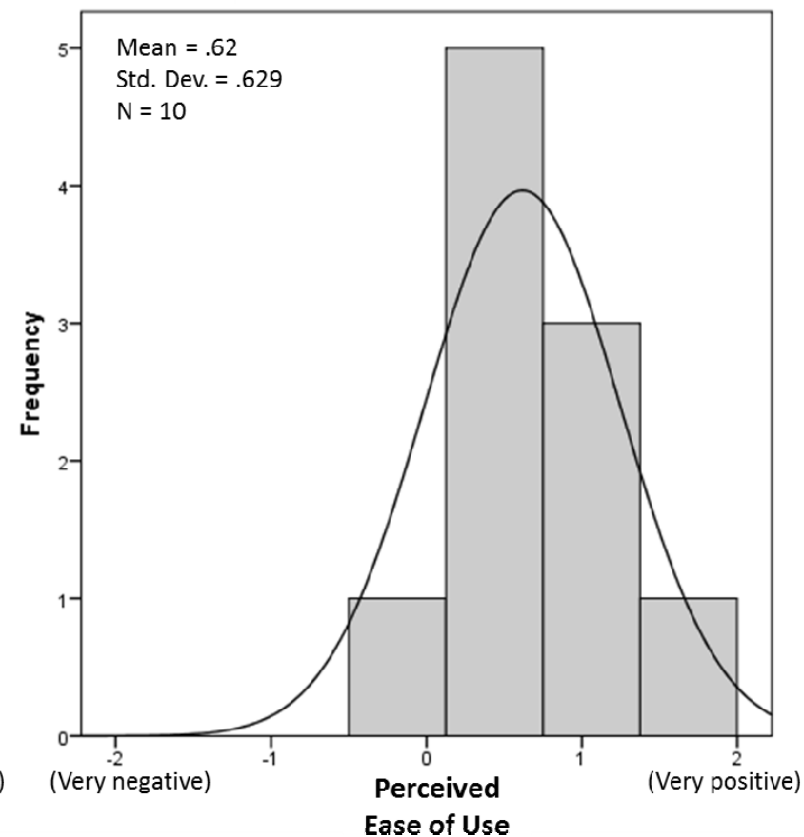
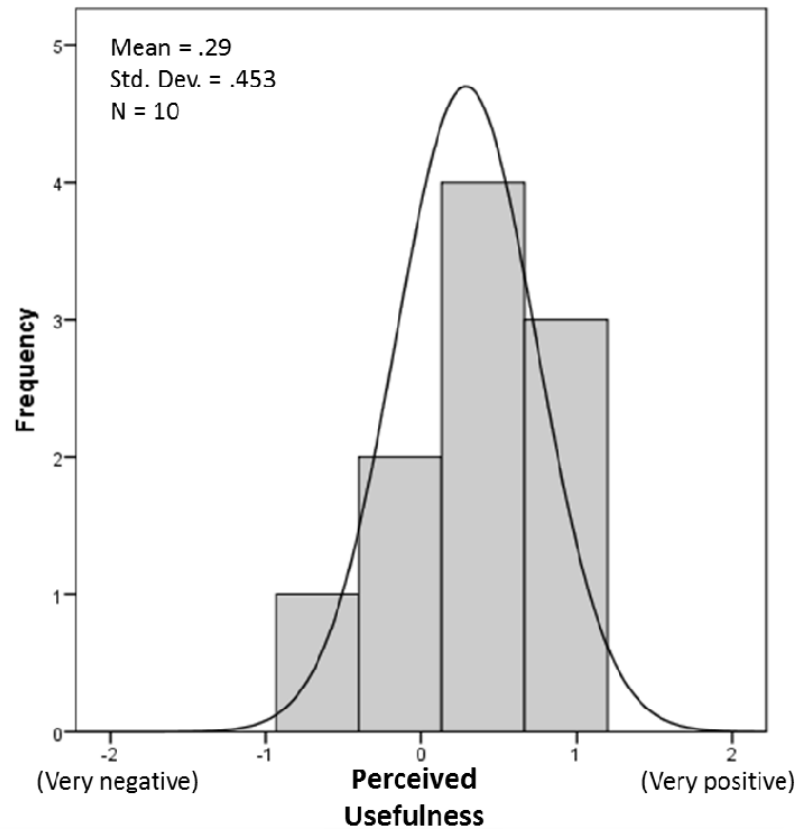
Declare



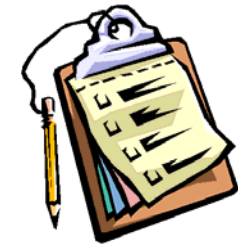
DCR-graph



Insight 2: Perceived usefulness/ease of use



- The more experienced, the more optimistic regarding usefulness



III. Qualitative Evaluation

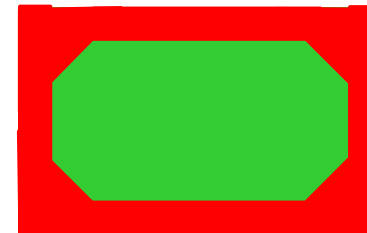
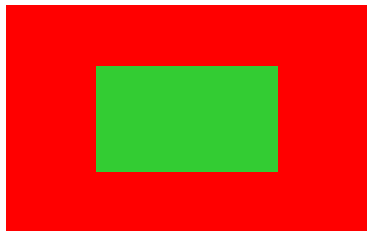
Assignment



- Correct solutions for Declare and DCR-graphs
→ Declarative modeling can be taught
- Graphical notation
 - Too academic
 - Neither convincing nor intuitive
- Informal descriptions of constraints not always helpful

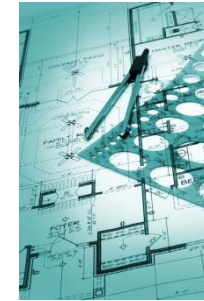
Opportunities for a declarative approach

- “Always at least some structured subprocess”
- Hybrid approach

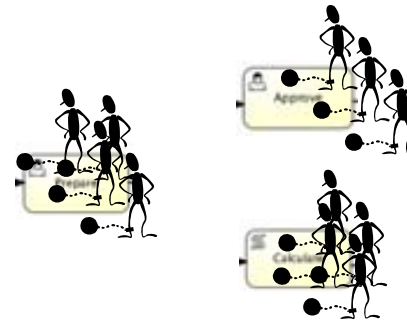


Requirements

- Need for declarative specifications



- Readability

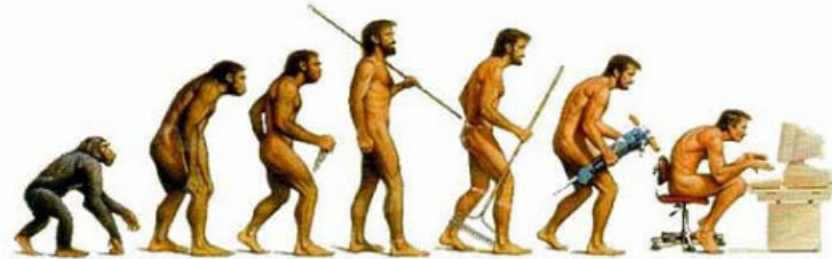


- Candidates: spaghetti models, model freedom

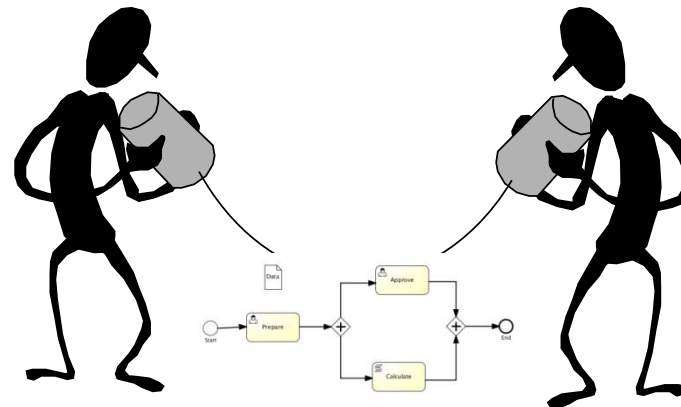


Use cases

- Process evolution

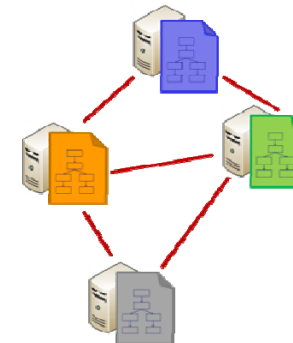
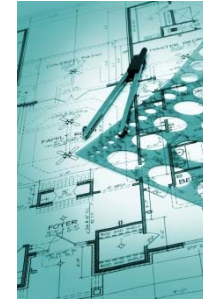


- Communication model

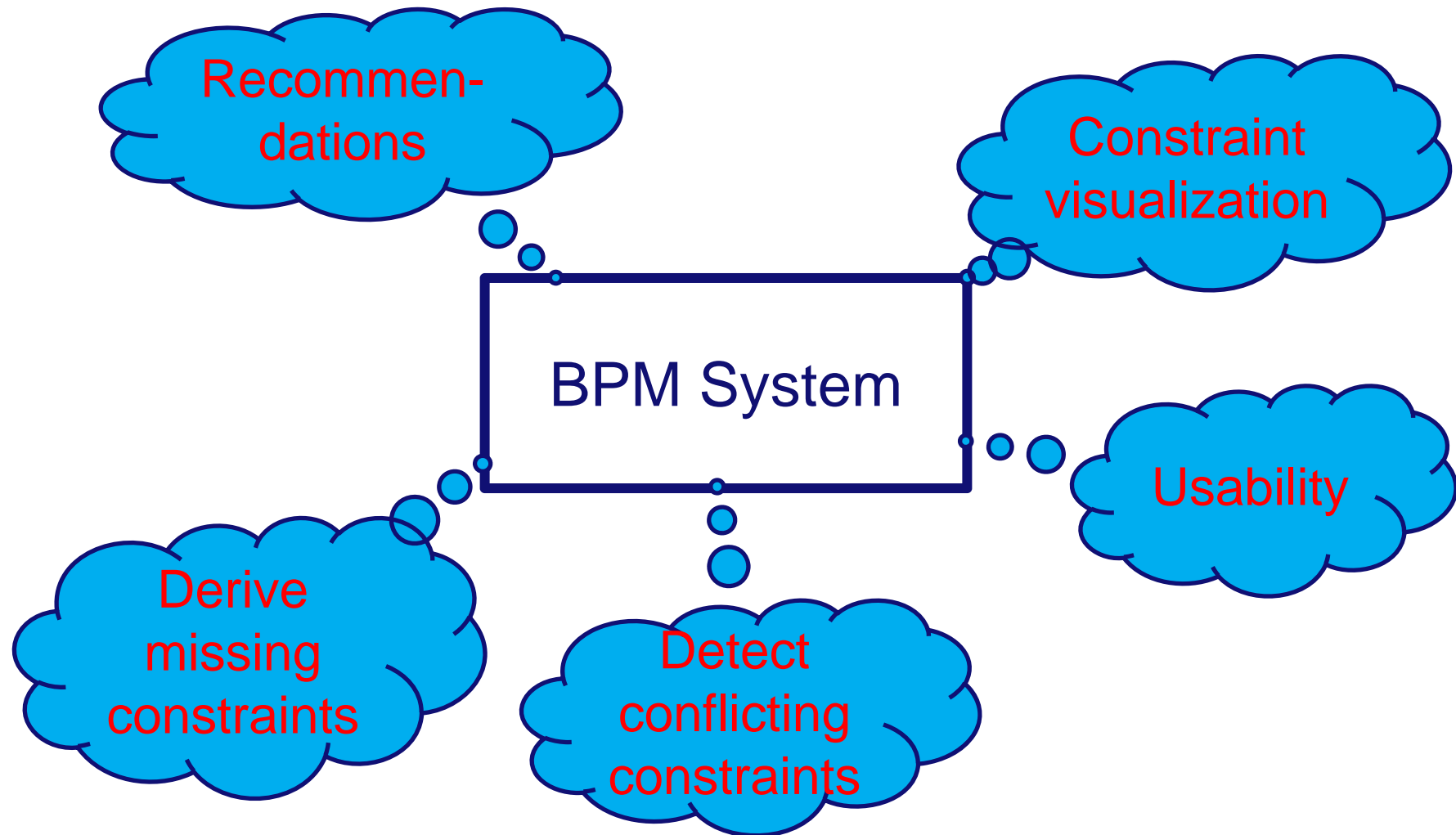


Limitations

- Get a declarative specification
- Component based systems
- Existing tools and their usability



Tool requirements



Take-home picture

