



# TAMODIA 2007 tutorial: Task Modeling for the design of complex and highly interactive systems

TAMODIA  
2007

November 7<sup>th</sup> 2007, Wednesday, IRIT, University Paul Sabatier, Toulouse, France

<http://liihs.irit.fr/tamodia2007/>

## Tutorial Program

### Morning session: 9h-12h - Task Modeling for the design of complex and highly interactive systems

#### Gerrit Van der Veer (Vrije University, The Netherlands)

1. Introduction:
  - Overview of this tutorial (and a pointer to Fabio's part)
  - What is "task analysis" and "task modeling"
  - Why task modeling
  - Task modeling in Literature: definitions (Dix, Preece) and examples of approaches: TKS, ATOM, MAD, CCT (just pointing to Fabio)
  - Phases in design and task models (GTA) – modeling the current task world vs. modeling the envisioned future vs. modeling future technology use
  - Basic concepts: task vs. goal; primary vs. secondary tasks; simple task (MAD) vs. unit task (GOMS) vs. basic task
2. Knowledge of existing task worlds – what should go in a "current" task model: Jordan & Henderson's sources of task knowledge
  - Analytic methods of knowledge elicitation (TKS, ATOM, MAD) + exercises
  - Implicit expert knowledge + exercise for a coffee break
  - Explicit group knowledge and Distributed cognition + exercises
  - Implicit group knowledge: ethnography & interaction analysis + exercise to take home
  - Agents (human and system actors, roles, organization)
  - Work (tasks, goals, hierarchy vs. flow, protocols vs. situated strategies)
  - Context (objects, environment, history, events)
3. Views on a task world
4. Ontology for task worlds
5. Model representations:
  - Formal modeling: Hierarchies; Flows; Templates; Use cases and UAN
  - Pictures and sketches
  - Scenarios
6. The big step in task modeling: from current knowledge to envisioned future
  - Design space analysis
  - Whom to ask
  - Formal modeling
  - Scenario building
  - Scenario analysis
7. Focusing on interaction
  - Detail scenarios
  - UAN revised
  - The required level of detail: activities
  - design patterns for activity design
8. Summary and web pointers

### Lunch break: 12h-13h30

### Afternoon session: 13h30-16h30: Tools and Methods for the design of multi-device user interfaces based on task models

#### Fabio Paternò (ISTI-CNR, Italy)

- Introduction to task analysis and modelling, and scenarios;
- Moving from informal to structured representations;
- Task models representations;
- ConcurTaskTrees;
- Tools for task modelling (CTTE);
- Exercise with CTTE;
- Design based on Task Models;
- Logical Design of User Interfaces;
- Demo of the TERESA Tool;
- Model-based design of multi-device interfaces;
- Model-based design of multi-modal interfaces;