A project management tool for flexible collaboration

Mamadou Lakhassane CISSE

IRIT Laboratory, Toulouse, France
UMMISCO/UCAD, Dakar, Senegal

Mamadou.Cisse@irit.fr

CONTEXT

Most software and system processes contain tasks that can be performed by multiple actors, known as **collaborative tasks.**

- When it is executed, a collaborative task is deployed with many **instances**, each one is performed by one actor.
- There are various **strategies** describing relations between instances of a collaborative task (sequence-based, parallel-based).

Process Management Systems (**PMS**) provide functionalities to control task instances' evolution at execution time.

MOTIVATION

Existing process modeling languages lack a clear semantics on how to instantiate and execute a collaborative task.

- Execution of collaborative tasks is not yet finely controlled in PMS

Existing PMS do not support selecting different strategies to instantiate and execute a collaborative task.

- Execution of collaborative tasks is not flexible

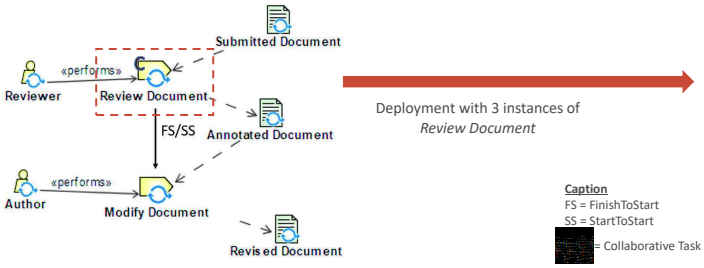

Fig.1: Example of a process with a collaborative task (Review Document).

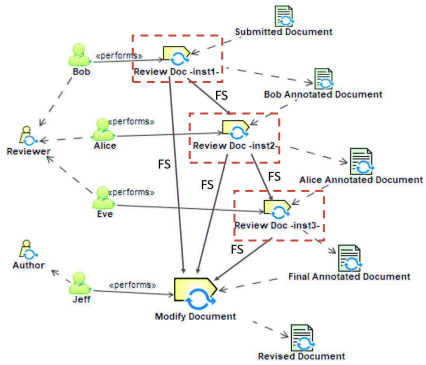

Fig.2: Sequential strategy of the collaborative task *Review Document*

WORK SUMMARY

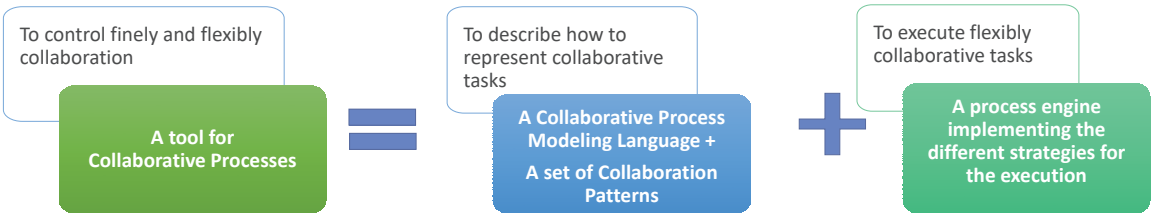

Fig.3: Overview of our approach

RESULTS

- A set of **Collaboration Patterns** allowing representing different strategies that can be used at execution to perform a collaborative task. These patterns describe the possible control flows (sequential, parallel) and the way of sharing work products among instances of a collaborative task.
- A **Process Modeling Language** to express collaborative concepts.
- A prototype of a **Collaborative Process Engine** allowing to instantiate and execute collaborative tasks based on chosen strategies.

CONCLUSION

- We propose a flexible way to enact collaborative tasks,
- For a more intelligent assistance in selecting an execution strategy for a collaborative task, we are investigating :
  - A language of definition of context elements,
  - An algorithm of pattern recommendation based on context elements values.

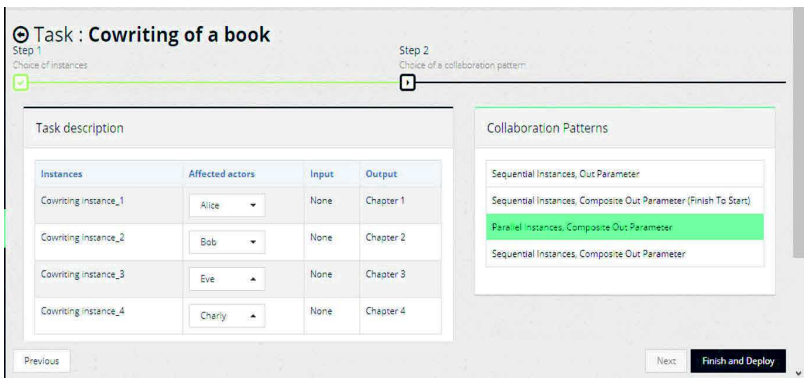

Fig.4: Screenshot of a task deployment: Cowriting a book
- left side: list of task instances; right side: the choice of a collaboration pattern.