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## eParticipative Process Learning—process-oriented experience management and conflict solving

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### Abstract

The indiGo project offers a solution for tackling resistance against and problems while executing process models: eParticipative Process Learning. Via moderated, web-based discussions, consensus about a process is created and process models are reviewed to achieve better understandability or other quality aspects. Furthermore, problems during the execution of a process are solved collaboratively and captured as lessons learned to facilitate upcoming process executions. In this paper, we present the method and technical infrastructure to support eParticipative Process Learning. To show that eParticipative Process Learning leads to improved and accepted process models, three case studies are described.

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### 1. Introduction

Process models of organizations operating in innovative businesses are considered major assets. One example of such innovative businesses is the software market, where changing business, new technology, and scientific advances imply the definition or adaptation of processes. To survive

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these changes, process models need to be constantly inspected, evaluated, revised, and improved. Furthermore, they need to be enriched with lessons learned about their application in practice.

The approach of the BMBF-funded project *indiGo*—called *eParticipative Process Learning*—is to increase the applicability of such process models as well as to support their inspection and improvement. *indiGo* offers employees of an organization to engage in moderated discourses about the structure, content or execution of a process model. We define *eParticipative Process Learning* as a means to involve potentially all employees of an organization into consensus building about how a process should be executed, and to stimulate the sharing of process-related experience. *indiGo* provides a methodology and technical platform to enact *eParticipative Process Learning* within an organization. Via moderated, web-based discussions, (a) consensus about a process is built up, (b) process models are reviewed to achieve better understandability or other quality aspects, and (c) problems during the execution of a process are solved collaboratively and captured as lessons learned to facilitate upcoming process executions. These lessons learned are then stored in an experience base. By retrieving those lessons learned that fit to the context of a user, process execution is also supported by application experience. Methodology and Technology are a joint effort of two German Fraunhofer institutes: Fraunhofer IESE (Institute for Experimental Software Engineering) in Kaiserslautern and Fraunhofer AIS (Autonomous Intelligent Systems) in Sankt Augustin.

As depicted in Fig. 1, the process improvement in *indiGo* starts with an initial process model created by the Process Owners, i.e., employees responsible for this process model. This process model is annotated, discussed, and enriched with lessons learned via a web-based platform. Based on these contributions, the process model is reworked into an improved process model.

Both the developed methodology and the technology were evaluated between mid-2002 and 2003 through three case studies at IESE.

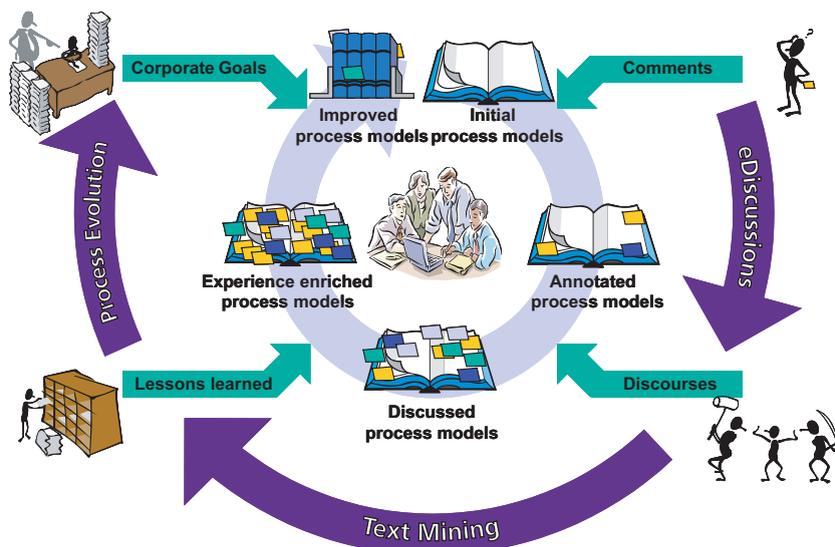


Fig. 1. Overview of *eParticipative Process Learning*.

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