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Paper title: Business process modeling and design: Ai models and Methodology

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In this article, you will find a formal system and approach for AI-based business process modeling. This helps create business process descriptions that are very clear and can be checked easily. There are five submodels in the enterprise model suggested here: organizational, objectives and goals, process, concepts, and constraints. For each one, the authors explain them well enough but also show why it's important to turn what they know about them into rules or formulas or something precise like that.

The introduction of the article discusses the significance of managing, studying, and illustrating knowledge about firms and their processes of a subject that interests both computer scientists and management experts. One precise area it concentrates on is whether IT ought to be used in helping people grasp companies better, make designing processes simple enough for average employees to understand too, as well as if it adds any benefit by coming up with new ways every so often.

The article introduces a structured system for expressing information about businesses and their business activities. There are five connected parts to the system:

- How organizations are structured and how they function.
- What the organizations are trying to do and what they hope to achieve.
- How the organization's actions lead to results.
- The ideas used in the organization's actions.
- The limits within which actions must happen. It explains important ideas like what individuals do, what happens when individuals act, specific things that can occur during an activity & conditions under which something happens.

Business activities are defined as series of specific things that people working for the company do to achieve something, every business activity uses some objects and not others but does things like change object state, produce new object.

Business processes are defined as sets of connected activities which together turn inputs into outputs by roles connected with them.

The framework created is used by giving a specific example of how to accept postgraduate students. In this case the authors explained what a Postgraduate Tutor and Secretary would do and how they would use ConGolog (the ConGolog procedure is a formal specification that defines the behavior of a role within a business process. It is developed using the ConGolog language, which is a concurrent logic programming language).

The authors observe that their work is unique because it focuses on being formal and suggesting the use of AI techniques like situation calculus and ConGolog., they acknowledge that their methodology is like goal-oriented methodologies such as KAOS and goal-based process analysis.

However, theirs offers languages and approaches that are more formal.

Business process modeling efforts already in existence frequently lack ways to make sure things are really true about what has been modeled. The authors are therefore trying to do more than has currently been done by seeing whether it's possible to make sure of arbitrary things in models that have been expressed using ConGolog.

It should also be possible to come up with examples that show something went wrong besides checking beforehand that nothing can (this would still be useful if you could find faults while executing at smaller scales than your entire model).

A tool was made for doing this which uses ideas behind logic programming but isn't quite same thing exactly. Ultimately, they want to show why it's better to use languages and methods which have been studied well enough to say some definite things about them when designing business processes and analyzing what happens afterwards rather than ones which haven't yet—even if this means coming up with new ways or extending old ones so that an industrial application becomes tractable. Frameworks like EKD could help decide how people who have certain kinds expertise.