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**Article synthesis:**

PROCESS MODELLING AND AI PLANNING TECHNIQUES: A NEW APPROACH.

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The article discusses the importance of **Business Process Reengineering (BPR) in improving the processes of medium and large enterprises**. It highlights the integration of a process modelling tool called SHAMASH with Artificial Intelligence (AI) planning techniques **to automatically generate useful process models**. The AI community, with its expertise in planning and scheduling, can offer valuable solutions to improve workflow technologies. The article reviews the architecture of SHAMASH, which consists of subsystems for authoring, simulation, optimization, text generation, and workflow interface. The tool allows for the detailed modelling, simulation, and optimization of processes in organizations.

Workflow systems, represented as computerized models, have been **widely adopted** in various sectors such as insurance, banking, manufacturing, and telecommunications. However, there are still limitations in terms of maturity and complexity that could be addressed by incorporating AI techniques. The article explores the **similarities between AI planning and workflow modelling**, emphasizing the importance of collaboration between the two disciplines to enhance business productivity.

The integration of the PRODIGY 4.0 planner and SHAMASH workflow modelling tool is presented as a framework for merging AI planning with workflow technologies. The translation of SHAMASH rules into PRODIGY operators demonstrates how the two tools can work together to generate optimized process models automatically. The article concludes by suggesting further improvements to the integration process, such as incorporating parallel planning, conditional plans, and optimization procedures using Machine Learning techniques.

In summary, the article discusses the significance of BPR in improving organizational processes and the potential benefits of integrating AI planning techniques with workflow modelling tools. It presents a framework for merging PRODIGY 4.0 planner with SHAMASH to automate the generation of process models. Collaboration between AI planning and workflow technologies is seen as a way to enhance business productivity and efficiency. The article suggests future research directions to enhance the integration process further.