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**Summary of summaries**

With an emphasis on a novel native interpretation technique for predictive process monitoring, the paper provides a thorough overview of interpretable artificial intelligence (AI) for process mining. It presents a conceptual framework that prioritizes the interpretability and transparency of the model. The integration of AI methods to improve business process mining, such as machine learning and deep learning is explored in this article. The descriptive, diagnostic, predictive, prescriptive, and cognitive categories of intelligent process mining techniques highlight their capacity for pattern recognition, anomaly analysis, outcome prediction, action recommendation, and business process improvement.

The papers go deeper into a hybrid learning strategy that combines deep learning models with data-driven simulations to create accurate and comprehensible business process simulation models. It talks about how AI techniques and robotic process automation (RPA) can work together to improve business and industrial processes' intelligence, productivity, and quality. This is known as Industry 4.0. The paper highlights the significance of interpretability in achieving AI's cross-domain potential and offers a road map for using AI in process optimization, next-event prediction, anomaly detection, and recommendation generation.

Process optimization, automated machine learning, and business process mining are just a few of the many topics covered in the articles. They present important findings, important instruments, and crucial methods, providing insightful information for further study in this developing field. Process mining and deep learning are used to predict in-hospital mortality in diabetic patients. Additionally, topics like ERP process optimization in healthcare and the use of LSTM networks to improve data quality are also covered. The articles highlight different predictive computing techniques based on event logs and emphasize the significance of predictive monitoring for business processes to prevent potential risks through a proactive approach.

In conclusion, the papers presenting the critical significance of process mining in a variety of contexts and by investigating the possibilities for improvement through the combination of AI, deep learning, and graphical visualization techniques. It gives a thorough rundown of process mining applications and offers insightful information for upcoming studies and advancements in this rapidly developing field.