LEVEL 0 SUMMARY TEMPLATE

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Paper title: Traceability for Trustworthy AI: A Review of Models and Tools

Keywords specific to the paper: Traceability, Standardization, Decision-making, Ontologies and PMML (Predictive Model Markup Language)

Summary of the main contributions:

The discussion about traceability in AI systems reveals how important it is to keep track of everything that happens, ensuring that AI processes and results are trustworthy, transparent, and accountable. Imagine it like a detective trying to solve a mystery every clue matter, and nothing can be overlooked.

Despite having many tools to make AI research easier to replicate, there's still a big problem: there isn't a standard way to keep track of everything. This lack of consistency makes it hard for different tools to work together, which slows down progress in AI research. It's like trying to build a puzzle with pieces that don't fit together properly.

Plus, many of the tools we have now are good at recording basic information about research steps, like who did what and when. But they don't capture the more complex thinking and decision-making that researchers do. It's like having a camera that can only take blurry pictures it gives you some idea of what's happening, but not the full picture. Some tools, like WholeTale, focus on telling a story about the research, but there's still a need for better tools that can follow the decision-making guidelines set by experts in AI. Also, there's a concern about some tools being outdated or not supported anymore, which means they might not work properly.

When it comes to the detailed information needed for thorough traceability, it's important to be very specific about data, processes, and models. Using organized ways to describe these things, like ontologies and standardized templates, can help make sure everyone understands what's going on. Even though there are some languages like PMML that describe how models are made or trained, we still need more detailed descriptions to make sure everything can be repeated and checked. Also, it's crucial to have good descriptions of models so we can understand how AI results affect businesses or people.

In conclusion, there's a call for everyone to work together to create a standard way to describe everything that happens during AI development. This would help make AI research more transparent and trustworthy, moving the field forward and building trust in AI systems and applications. Working together on standardization can improve the quality and reliability of AI research, leading to advancements that are

ethical and beneficial for society. It's like building a strong foundation for a house—without it, everything else might collapse.