Experimental Workflow Tracking using Provenance

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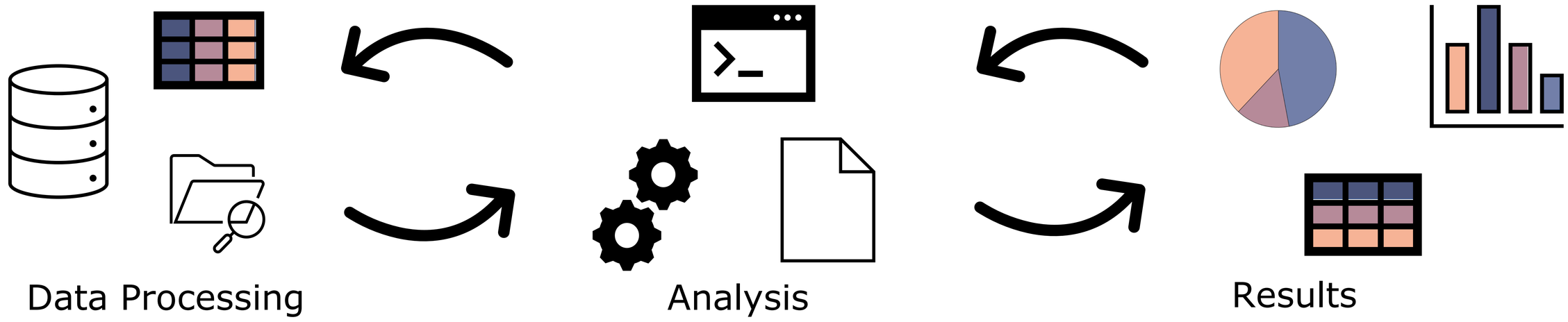
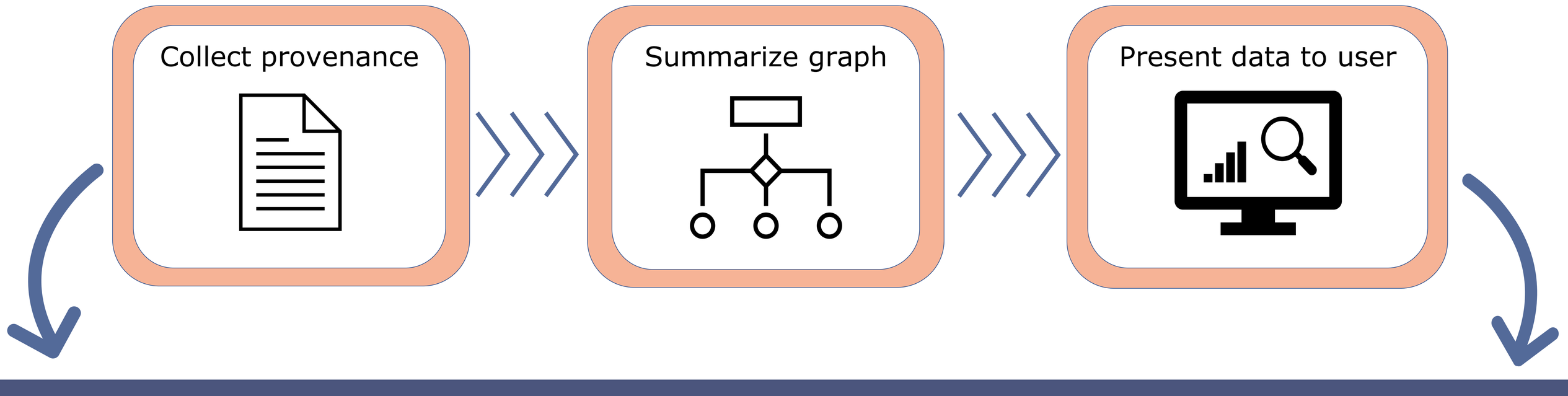
Problem: Computational experiments are challenging to track and understand because the process is exploratory and involves many tools.

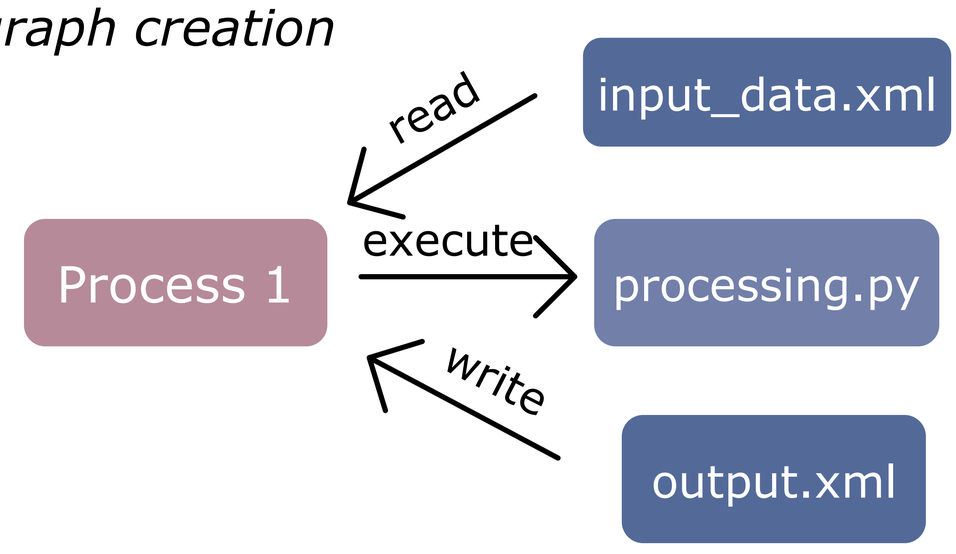


Idea: Automatically track experiment steps across a system and present the workflow to the user in a way that is easy to understand.

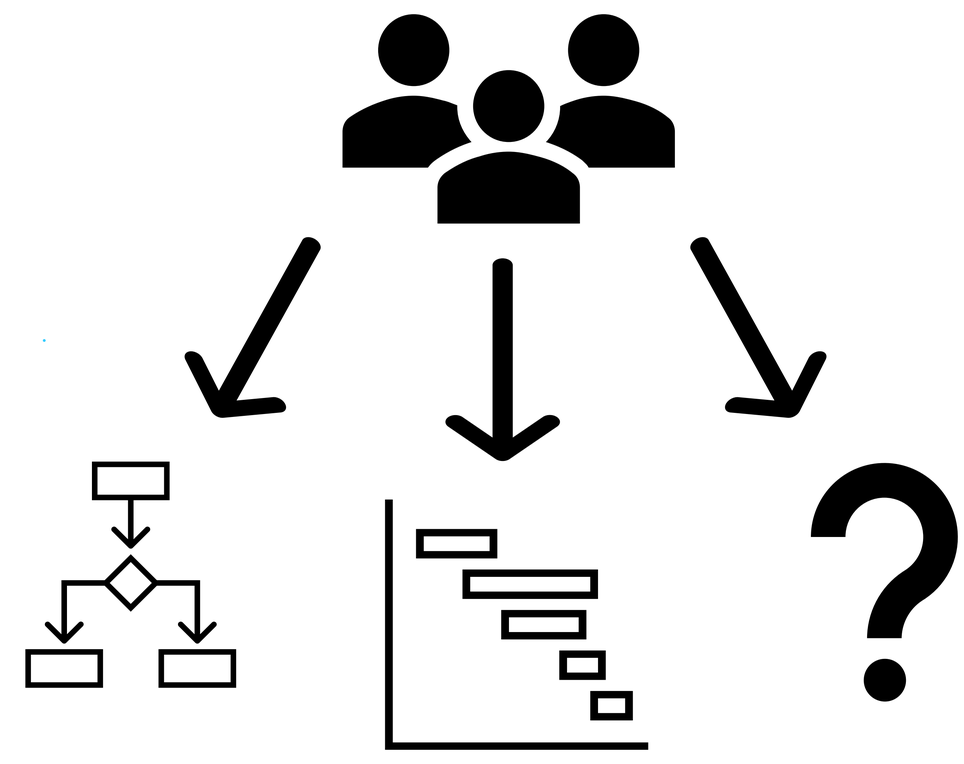


Approach: We use eBPF to develop a system provenance collection tool

eBPF allows extension of the kernel, enabling simple system object tracking and provenance graph creation



Future Work: We will perform a user study to motivate our user interface design



Expected Outcomes

Computational experiments will be more:

Reproducible **Explainable**

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