

Documenting the Use of Generative AI in Digital Humanities Workflows

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Recent developments in artificial intelligence (AI), large language models (LLMs) and generative AI (GenAI) (Brown et al., 2020), have led to lively discussions and dedicated benchmarks within the scientific and education communities, as well as the society at large (Srivastava et al., 2023; Giannini, 2023; DIGHUM, 2023). While previous studies in digital humanities (DH) have already approached the general topic of digital workflows and research practices (Antonijević, 2020; Maryl, 2020), the impact of the emerging generative AI technologies on the field remains an area still to be explored. In this context, DARIAH represents an appropriate framework for experimentation and sharing. Documenting how digital humanities researchers and teachers use generative AI in their work and sharing this type of information within DARIAH's framework would provide insights into the ongoing transformations determined by these technologies, and allow for evaluating the benefits and potential risks, predicting future trends and envisaging policies for responsible, human-centric AI workflows.

This paper emphasises the need for the humanist users to keep track of the methods, interactions and outcomes of their GenAI-powered workflows and share the related documentation (prompts, dialogues, summaries, reflections) within the community for experience exchange and further analysis. This type of data can be released as additional materials to publications of articles or workflows that are stored in dedicated spaces such as DARIAH's repository on Zenodo or the SSH Open Marketplace.¹ Raising awareness and encouraging workflow documentation collection through special campaigns can also be envisaged.

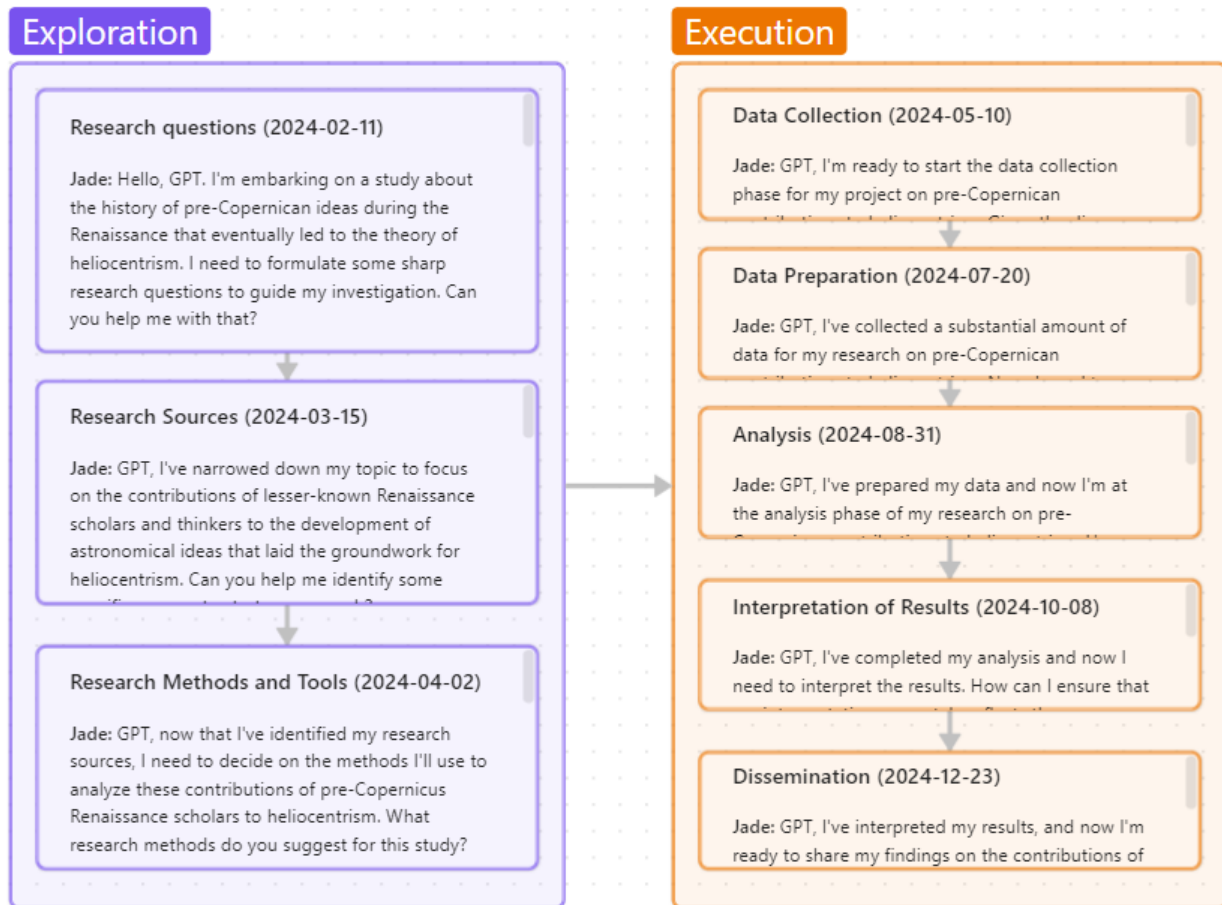


Figure 1. Obsidian canvas: hypothetical DH workflow documenting the researcher's interactions with GPT

¹ <https://marketplace.sshopencloud.eu/>

Figure 1 illustrates a simplified, hypothetical workflow enriched with documentation notes, which was generated using the GPT builder interface of ChatGPT-4, via a subscription account. The interactions were created by the WorkflowSimulator, designed for this purpose, prompted to emulate the interactions of a researcher called Jade involved in a project on the history of pre-Copernican ideas in the Renaissance, leading to the theory of heliocentrism. The GPT interactions were collected and processed in Obsidian², a free software for personal use in storing and organising notes. It allows the user to keep track and document the evolution of his/her ideas and reflections in various types of applications, from creative writing to project management. Core and community plugins are or can be made available within the tool, such as Canvas and Graph View (core), and Text Generator³ and Ollama⁴ (community) enabling the integration of various LLMs.

Figure 2 shows another type of visualisation in Obsidian to represent the interconnections between notes through thematic tags. The graph traces my interactions with three GenAI agents (ChatGPT-4, Gemini, Copilot) as well as the processes involved in conceiving the present proposal on the central topic of workflows: draw the state-of-the-art (soa), get explanations of concepts, write down ideas, design experiments.

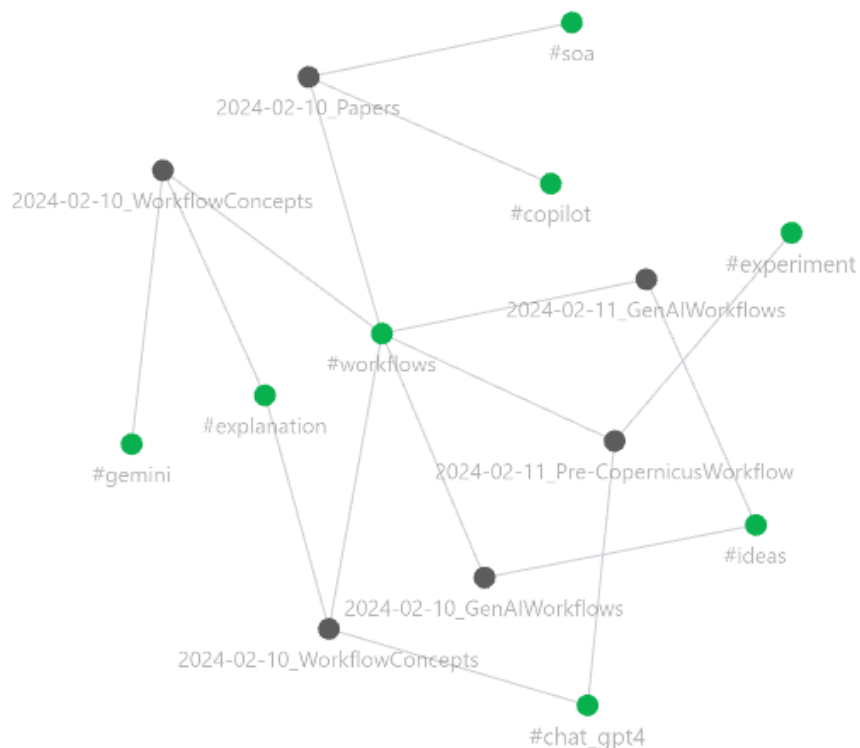


Figure 2. Obsidian graph view: tags (green); notes (black)

To conclude, the paper intends to foster discussions within the DARIAH community on the possibilities of building and sharing documentation that informs the readers about the use of generative AI in DH workflows.

References

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² <https://obsidian.md/>.

³ <https://github.com/nhaouari/obsidian-textgenerator-plugin>.

⁴ <https://github.com/hinterdupfinger/obsidian-ollama>.

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