CHALMERS
UNIVERSITY OF TECHNOLOGY

TRACING AI-ASSISTED SOCIAL REGULATION IN WRITING FOR PUBLICATION

The process and product of knowledge making in the era of AI

INTRODUCTION

Generative Artificial intelligence is becoming embedded in writing for publication, yet little is known about how it reshapes the social regulation of academic writing as it unfolds for Early Career Researchers.

STRAND 1

How does AI shape ECRs agency and processes in scientific and academic writing?

- Frameworks of Self-regulation and Co-regulation of Learning.
- Micro-ethnographic approach (Bayek, 2023).
- Keystroke logging: Participants will install Inputlog, a keystroke logging software, on their laptops.
- Screen Capture. Participants will install Camtasia, a screen recording software, on their laptops.
- Interviews and stimulated recalls. Semi-structured interviews will be conducted with participants and, where relevant, their co-authors.
- Textual Drafts. Participants' writing drafts will be analyzed over time to track how their texts evolve, in line with the Text Histories method (Lillis and Curry, 2010).

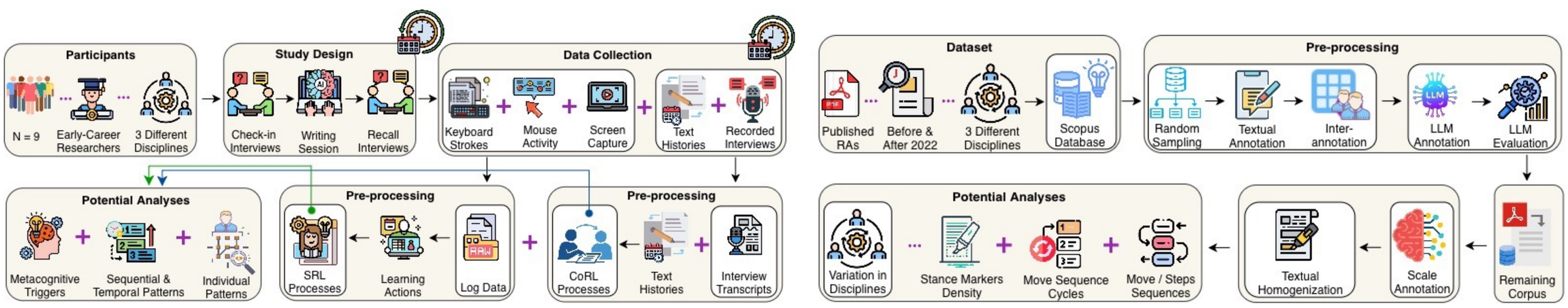
STRAND 2

How does AI impact rhetorical and epistemic diversity of academic texts?

- Corpus analysis of collected article
- Frameworks of textual analysis (e.g., Swales' rhetorical moves; Hylands' metadiscourse features).
- Large Language Models (LLMs) for scale annotations

Journals Selection

- Journals initially identified using SNIP rankings.
- Cross-checked the identified journals against SJR rankings.
- Selected the top five journals within each disciplinary subdomains
- Ensure all selected journals ranked within top 20 in both rankings
- Excludes some Journals due to data access limitations
- Final Selection: 30 Journals selected across the three main disciplines



THE PROJECT'S KEY CONTRIBUTIONS…

- Theoretical: Advances our understanding of the social regulation of learning in AI-assisted writing for publication.
- Methodological: Introduces an integrated micro-ethnographic approach combining multimodal analysis of writing processes with ethnographic data collection.
- Practical: Identifies strategies for early-career researchers (ECRs) to use AI tools without compromising essential metacognitive and social regulatory processes.
- Design-oriented: Offers insights for the responsible design of AI writing tools that support, rather than disrupt, social regulatory processes.

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