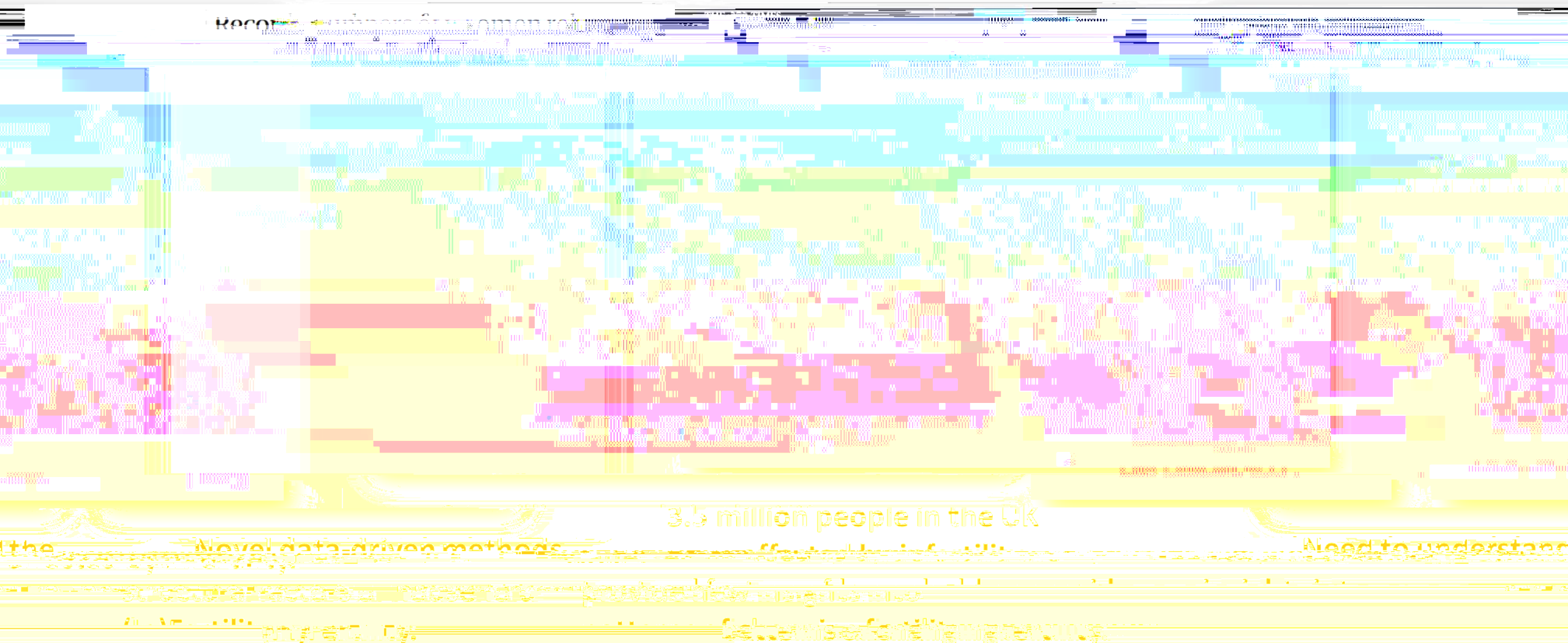


A LLM Review of Social (In)fertility in Modern Households

Project title: 'Connecting Disciplines using Large Language Models -
A Case Study of Generating Hypothesis to Map Social (In)fertility in
Modern Households'

Work in Progress

Modern Households – Declining Fertility



Broad Research Question

How important is the local,
geodemographic environment
relative to other factors for social
infertility?



How do psychological factors and social support networks affect fertility decisions?

How do relationship stability and dynamics influence decisions about having children?

How do educational and career ambitions impact the timing of childbearing?



How do psychological factors and social support networks affect fertility decisions?

How do social norms and cultural expectations affect fertility intentions?

How do government policies and institutional support systems influence childbearing choices?

How do relationship stability and dynamics influence decisions about having children?

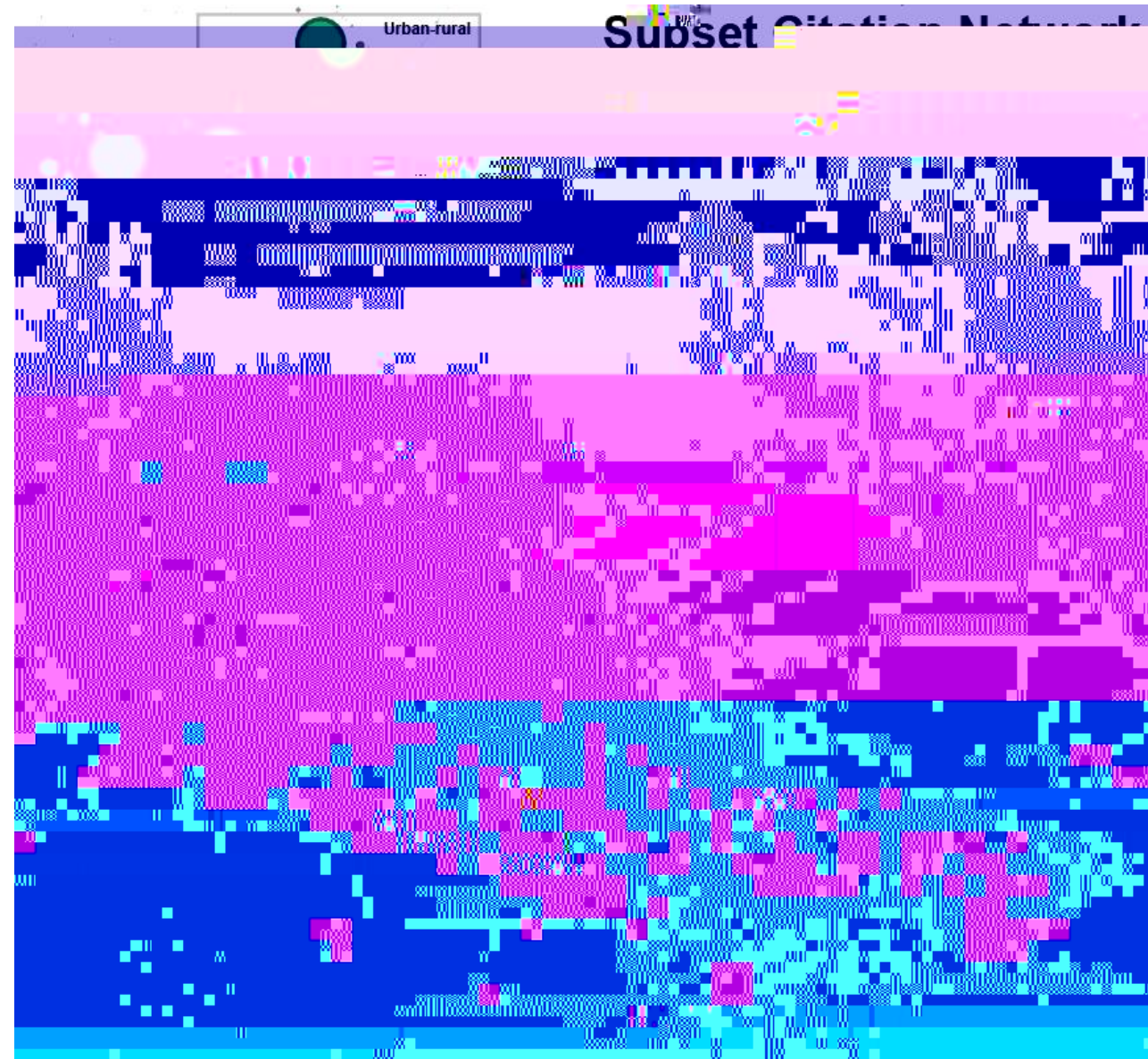
How does access to healthcare and reproductive technologies impact fertility choices?

How do economic uncertainties and job instability influence fertility decisions?

How do educational and career ambitions impact the timing of childbearing?

How do living conditions and housing affordability impact decisions about starting a family?

Goal: Translate between disciplines

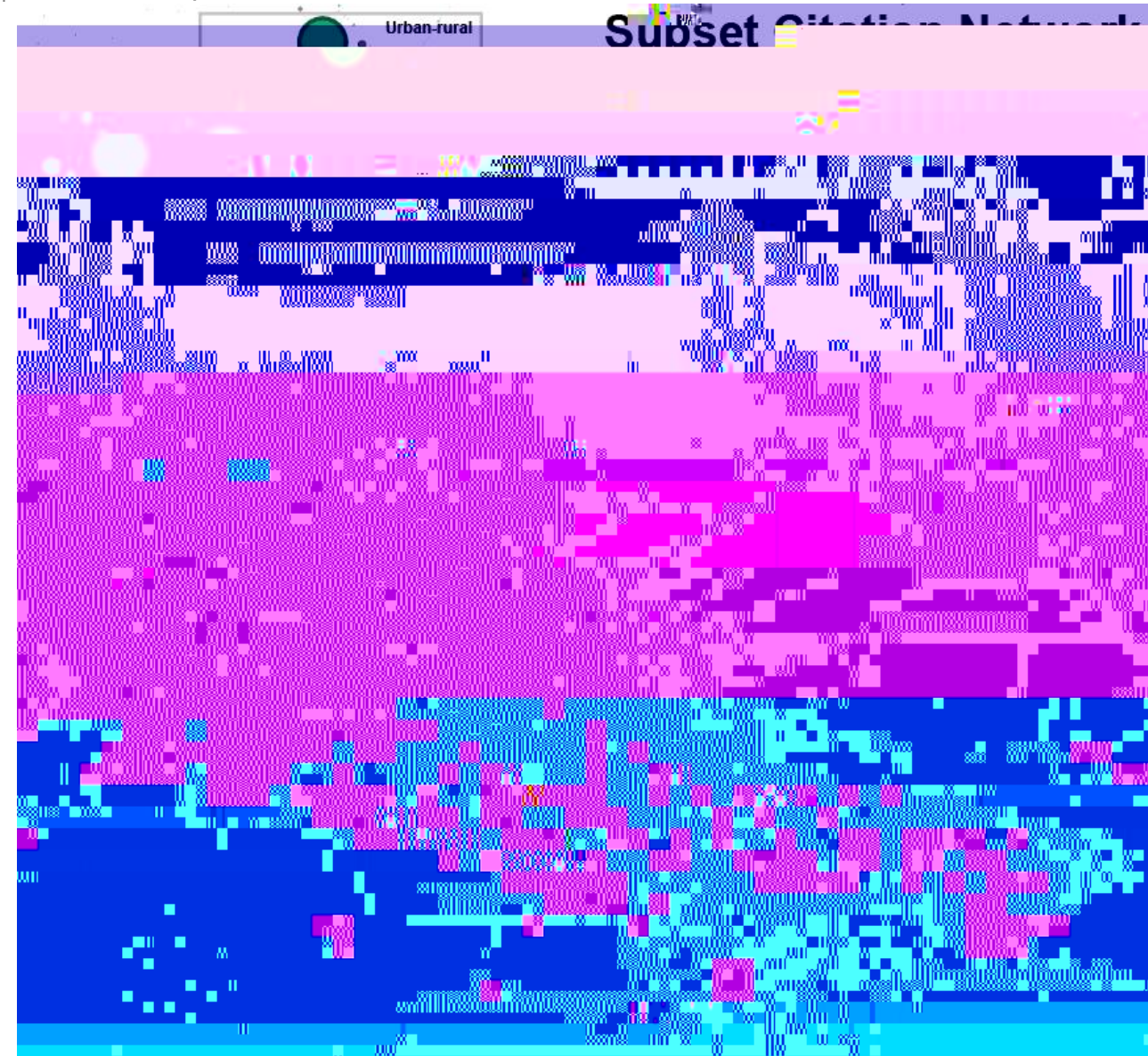


housing subset from Buyuklieva, B. and Raimbault, J. (2023) 'Estimating Bibliometric Links using Google Scholar: A Semi-Systematic Literature Mapping of Migration and Housing'. arXiv. Available at: <https://doi.org/10.48550/arXiv.2302.10791>.

Goal: Translate between disciplines

Milestones:

1. Deliver a semi-systematic review of papers (where possible aided by LLMs for selection)
2. Develop a pipeline to use LLMs to generate document-based (i.e. 'informed') claims



housing subset from Buyuklieva, B. and Raimbault, J. (2023) 'Estimating Bibliometric Links using Google Scholar: A Semi-Systematic Literature Mapping of Migration and Housing'. arXiv. Available at: <https://doi.org/10.48550/arXiv.2302.10791>.

Traditional Reviews



Buyuklieva, B. and Raimbault, J. (2023) 'Estimating Bibliometric Links using Google Scholar: A Semi-Systematic Literature Mapping of Migration and Housing'. arXiv. Available at: <https://doi.org/10.48550/arXiv.2302.10791>.

Traditional Reviews – Systematic Reviews

Involvement / Scope: Broad to Narrow

Rigour: High to Low

...

Purpose reviewed
WBT/E 20.04 Tf1 0 0 1 526.22 152.86 Tr

A LLM Review

Systematic Review Step	Description	Task	LLM Assistance
Develop a Protocol	Create a detailed plan outlining inclusion/exclusion criteria, search strategy, and analysis methods.		
Conduct Literature Search	Perform an exhaustive search using predefined keywords and databases.	1 Clustering	identify synonymous concepts; suggest new relevant keywords
Screen Titles and Abstracts	Review titles and abstracts to identify studies that meet inclusion criteria.	2 Classification	automatically flag relevant studies (by type)
Full-Text Screening	Review the full texts of selected studies for final inclusion.	3 'Chat'	highlight key sections that match the inclusion prompts
Data Extraction	Extract relevant data using a standardised form.		
Quality Assessment	Assess the quality of included studies using specific appraisal tools.		summarise full-text articles (by predefined subtopics)
Data Synthesis	Combine and analyse		

Ethics Issues?

1. Deliver a semi-systematic review of papers (where possible aided by LLMs for selection)

Potential issue 1: Does applying LLMs on papers breach any licensing agreement? It just depends on how these were downloaded?

Potential issue 2: Human and indexing biases

Conclusion

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Thank you.

Interested? Get in touch!