



Mercator Research Institute on
Global Commons and Climate Change gGmbH

Climate justice in adaptation policy: an evidence map and author's gender analysis

Workshop Adaptation Tracking and AI

Presentation Outline

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“All human beings are born **free and equal** in **dignity and rights**. Yet, when it comes to the effects of climate change, there has been nothing but **chronic injustice** and the **corrosion of human rights**.”

- Mary Robinson (former United Nations High Commissioner for Human Rights,
founder of Mary Robinson Foundation Climate Justice, first woman president of Ireland)

1.1 Introduction: Motivation

- Women are disproportionately vulnerable to climate change impacts.
- Currently implemented policies often have adverse effects.
- IPCC AR6: 33% of the core authors are women, while male researchers persistently dominate discussions and writing.
- Engaging women tends to provide for more innovative and inclusive solutions.
- Women representation in national parliaments is associated with the adoption of more stringent climate policies.
- Significantly reducing gender inequality enables climate resilient development.

(Nagel, 2015; Perez, 2019; Liverman et al., 2022)

(Mavisakalyan & Tarverdi, 2019; Robinson, 2019;
Andrijevic et al., 2020)

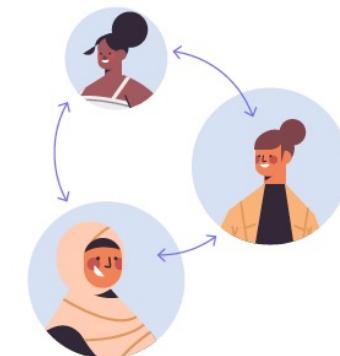


Image source:
(UNDP, 2022)

1.2 Introduction: Theoretical Framework

CLIMATE JUSTICE – a framework that, while aimed at tackling climate change, prioritises human rights by explicitly addressing multiple intersecting injustices that are or can be made worse by the absence or delay or misguided implementation of mitigation and adaptation activities, or even by their implementation.

(Robinson, 2011; Sultana, 2021).

FUNDAMENTAL PRINCIPLES

- **distributive justice** (how resources are allocated among individuals, nations and generations);
- **procedural justice** (the inclusivity of the decision-making process); and
- **recognition** (focuses on the representation of diverse cultures and perspectives in the form of either direct engagement or indirect but fair consideration).

(IPCC, 2022)



3. Research Questions

RQ: Do women authors tend to include a topic related to climate justice in their research more often than men authors?



Image source:
(Criado Perez, 2020)

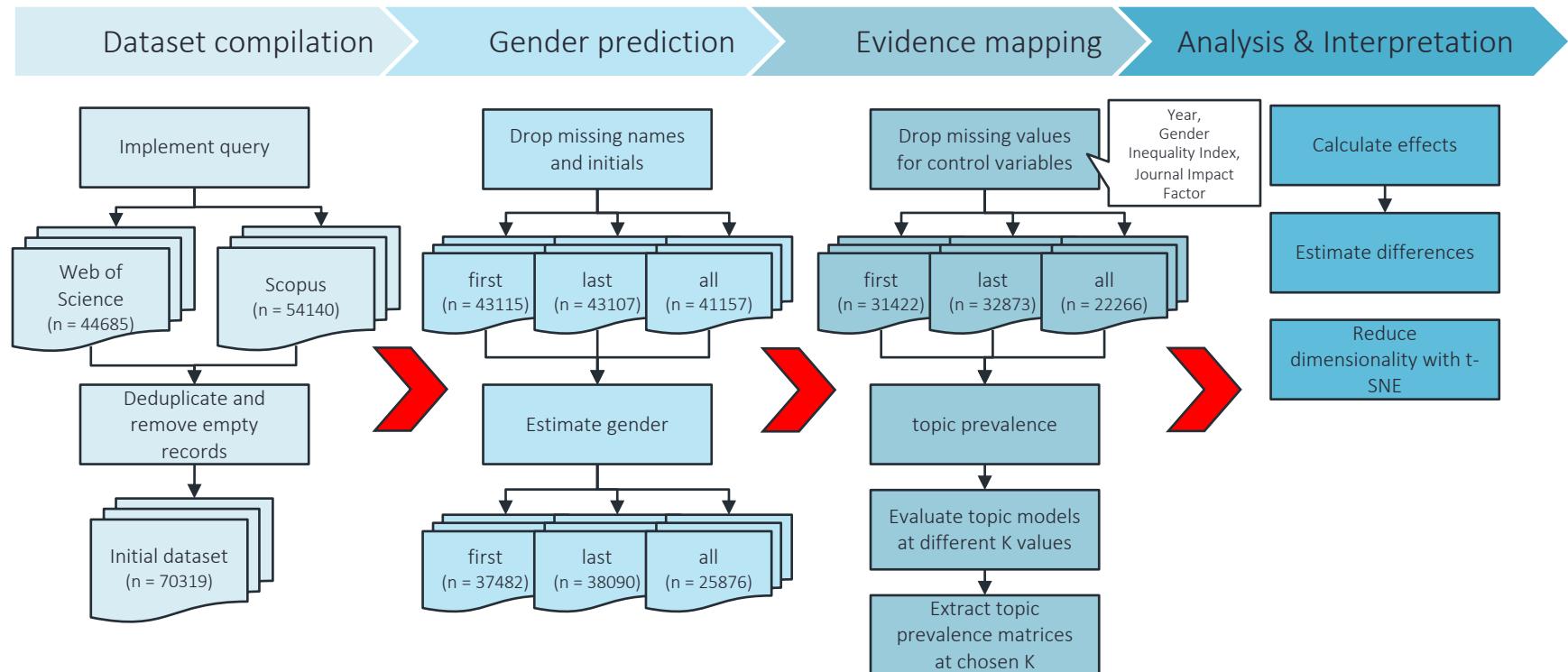
Hypotheses



H0: There is no statistically significant difference in topic prevalence regarding climate justice topics between female and male researchers.

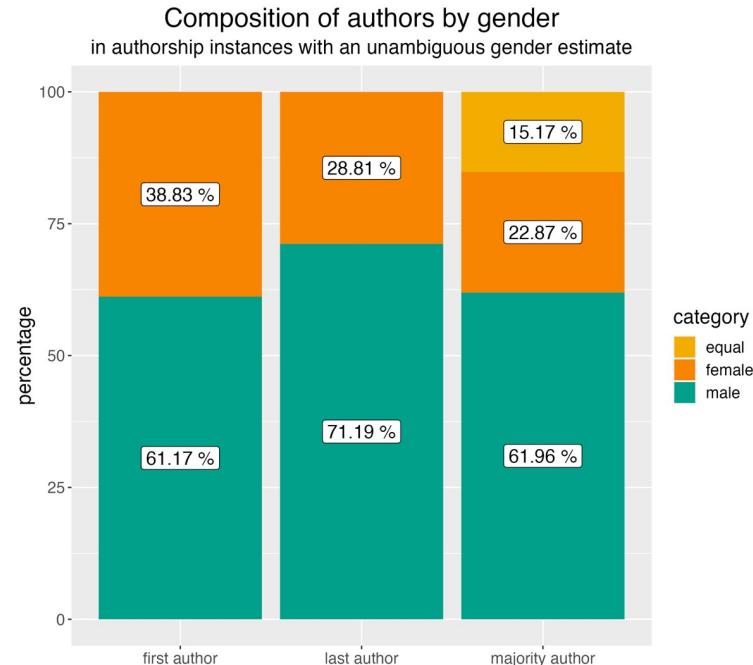
H1: Female researchers in the position of the first author include social justice topics in their research on climate change adaptation policy more often than male researchers in the same position.

4. Methods: Overview

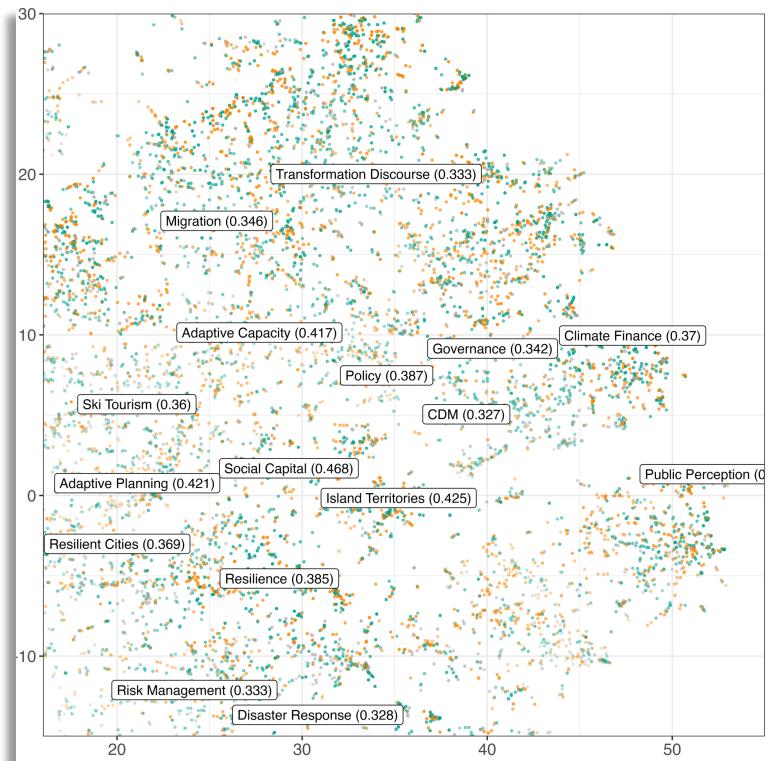
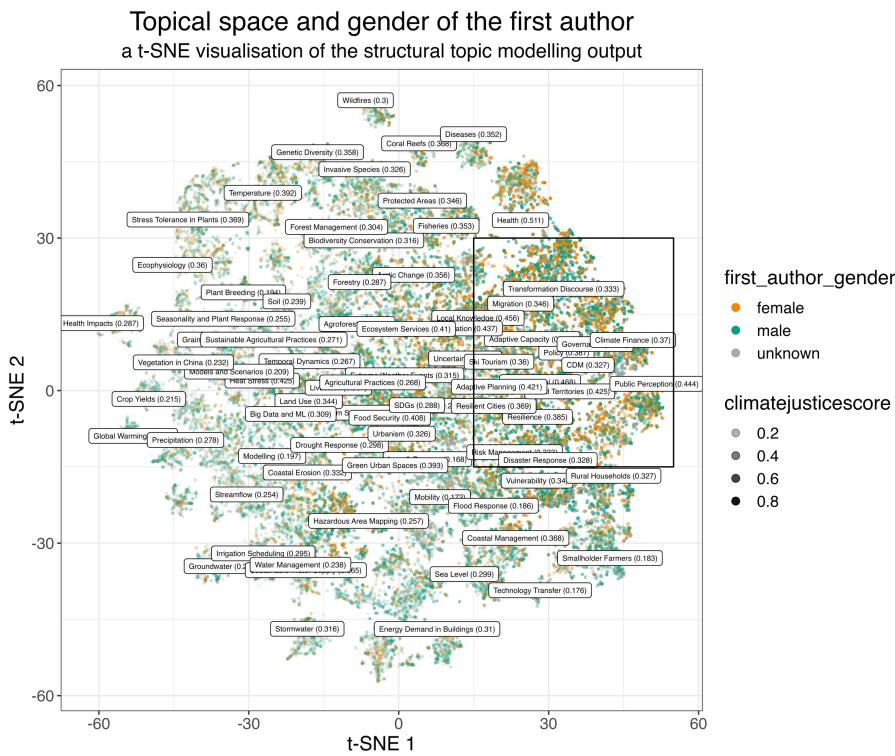


5.1 Results: Gender Estimation

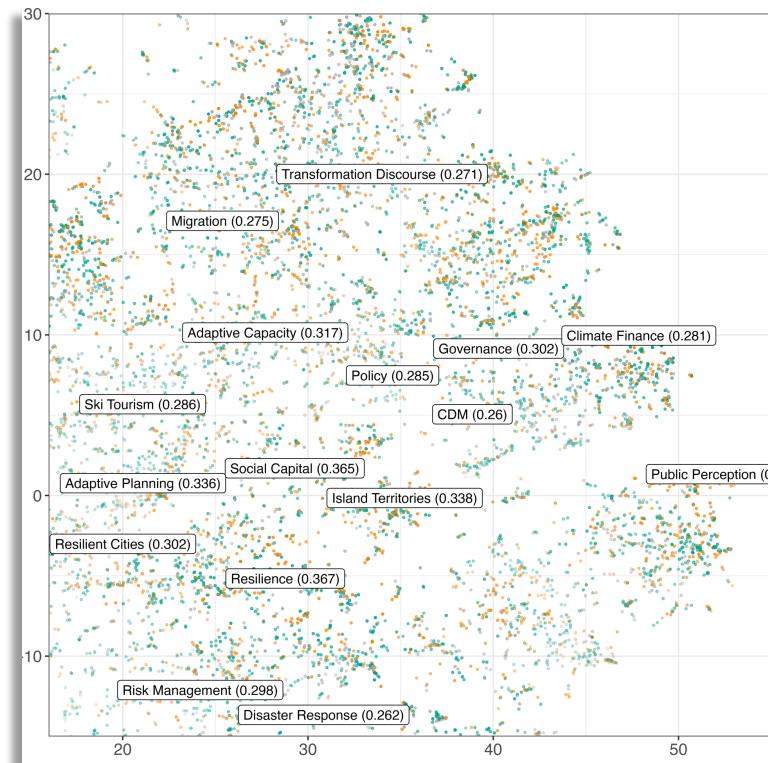
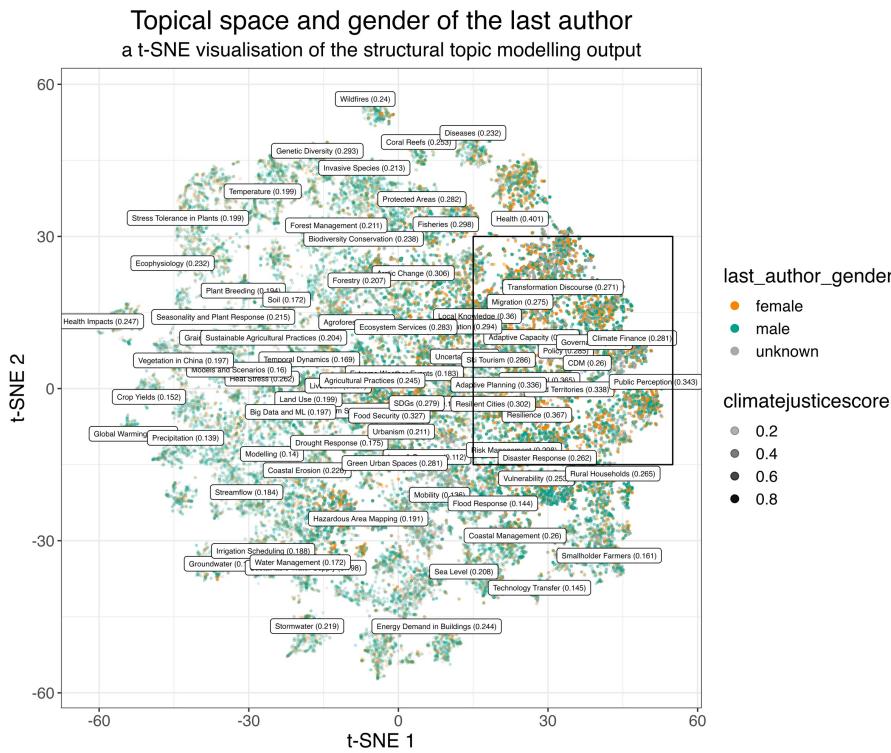
- The last author position is largely held by men researchers, which illustrates once again the ‘leaky pipeline’ problem, where **gender parity is lower in higher career stages**.
- We observe a **higher women participation rate** than for the most scientific disciplines described before.
- There is a clear gender bias in collaboration patterns.



5.2 Results: Structural Topic Modelling



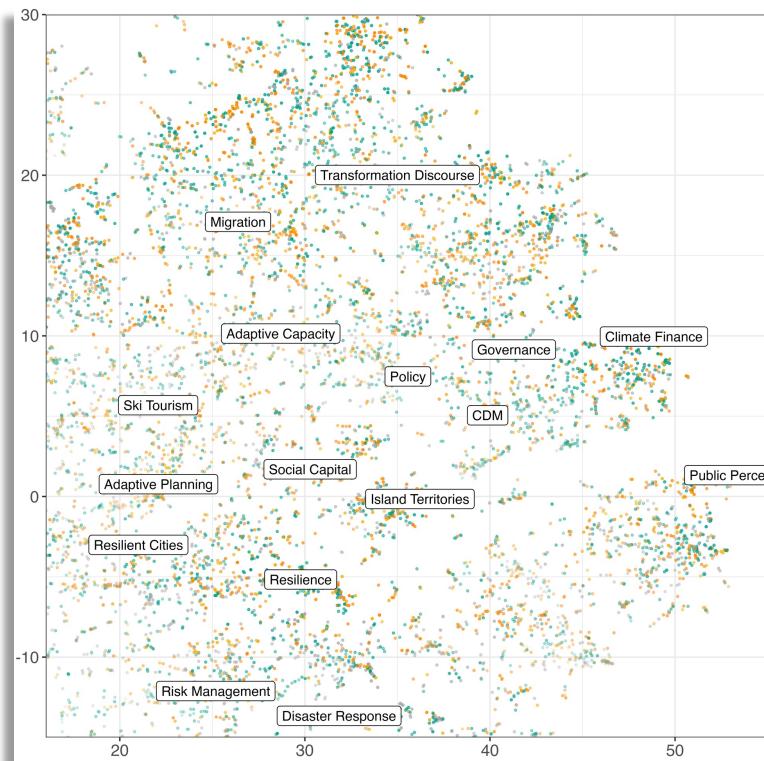
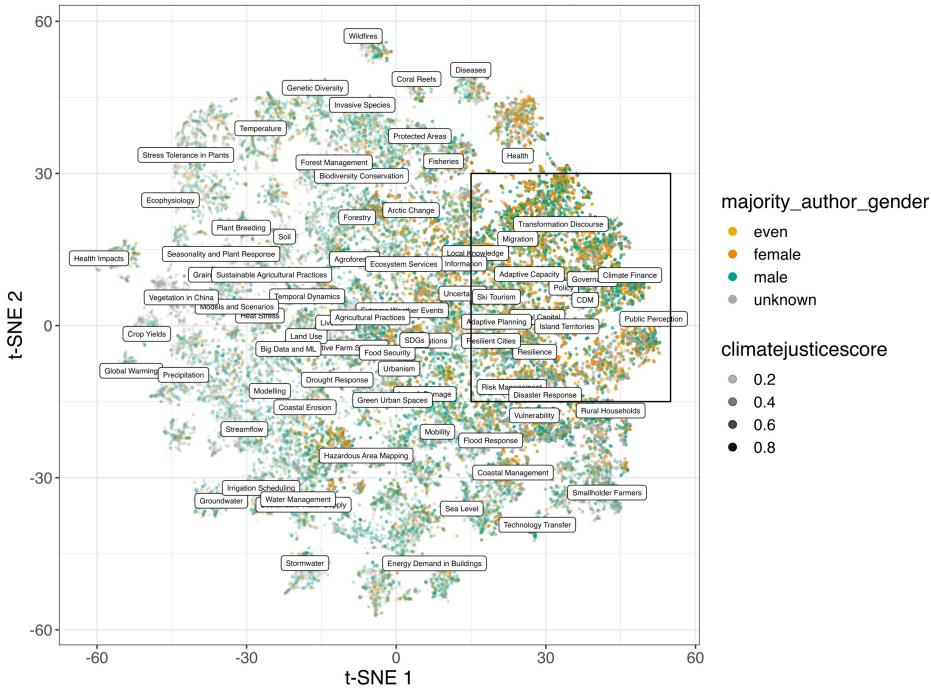
5.2 Results: Structural Topic Modelling



5.2 Results: Structural Topic Modelling

Topical space and gender composition of the full author group

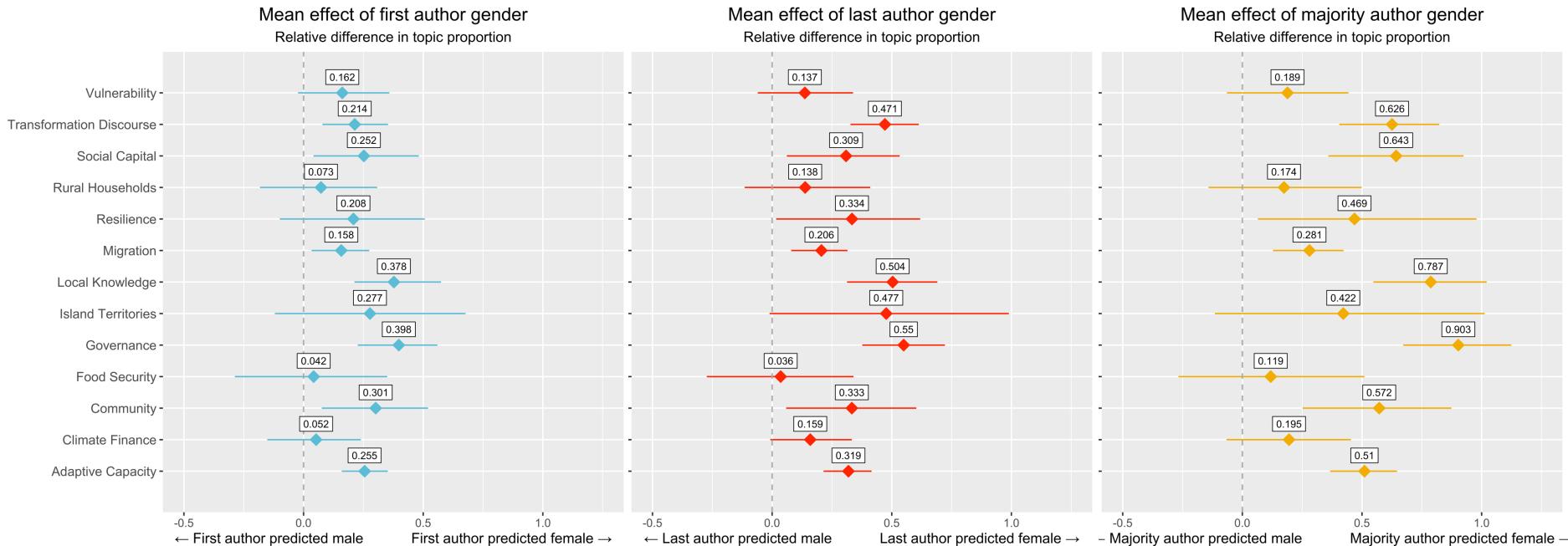
a t-SNE visualisation of the structural topic modelling output



5.2 Results: Structural Topic Modelling



5.3 Results: Effects of Gender Variables



Thank you!

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