Evolution of Social Issues in Films

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Introduction

Cinema has long served as a platform for exploring and reflecting on **societal issues**, with movie narratives often acting as cultural artifacts that shape and challenge public opinion. From race, gender to environmental concerns, films present social issues in ways that resonate with diverse and global audiences.
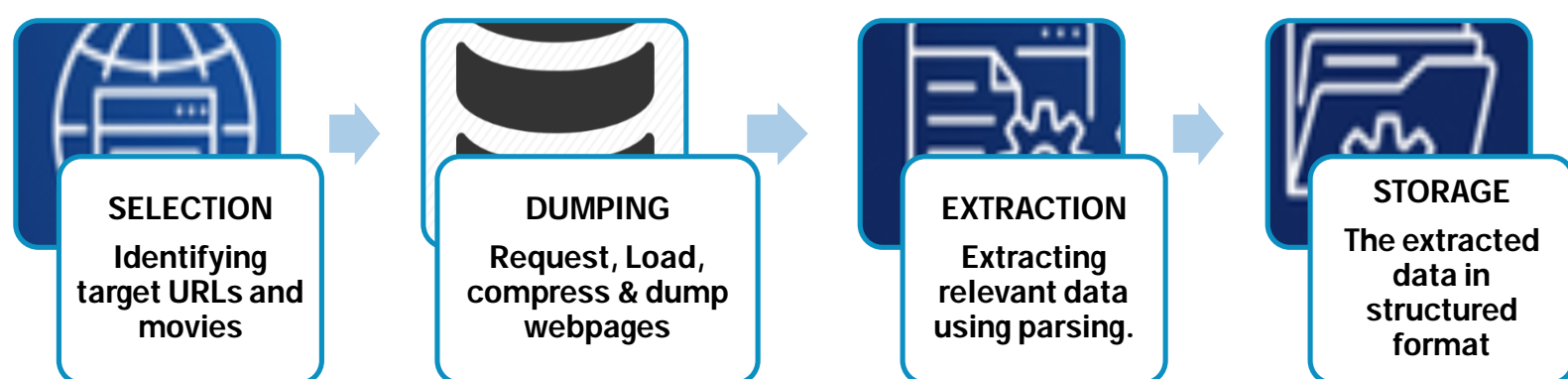
This study leverages data containing both temporal and geographical information, enabling us to explore how social themes evolve **across time and space**. Through computational methods such as natural language processing and topic modeling, this research offers a comprehensive approach to studying how films act as a reflection of, and a catalyst for, evolving social values across the world.

Research Goals

- What are the dominant social themes present in films from various countries?
- How depiction of social narratives present in films have evolved over time and space?
- What patterns can be identified in the distribution of societal themes across genres over regions?

Methodology

Data Collection

| SELECTION | DUMPING | EXTRACTION | STORAGE |
| Identifying target URLs and movies | Request, Load, compress & dump webpages | Extracting relevant data using parsing. | The extracted data in structured format |

Data Pre-processing

- Cleaning • Quality assessment
- Label creation for social issues
- Manual Labelling, Feature engineering using LLM & NLP
- Tools/Libraries used – llama3, Lang chain, Vader

Model Development

| Train-Test data split (80 - 20) | Training Grid Search +K-fold Cross validation | Best Model Selection | Testing on test set | Multi-Class Classification |

Workflow of SVM Classification Model (mean accuracy: 0.72 +/- 0.02)

Results of classification of movies
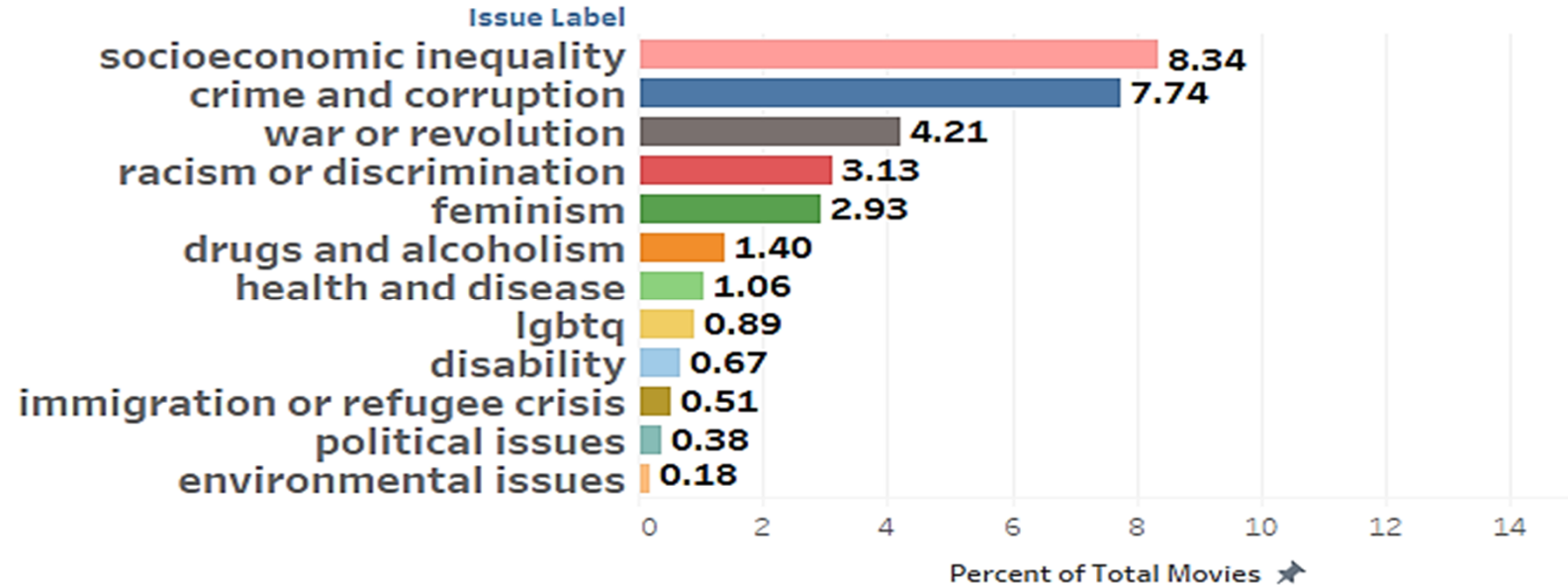
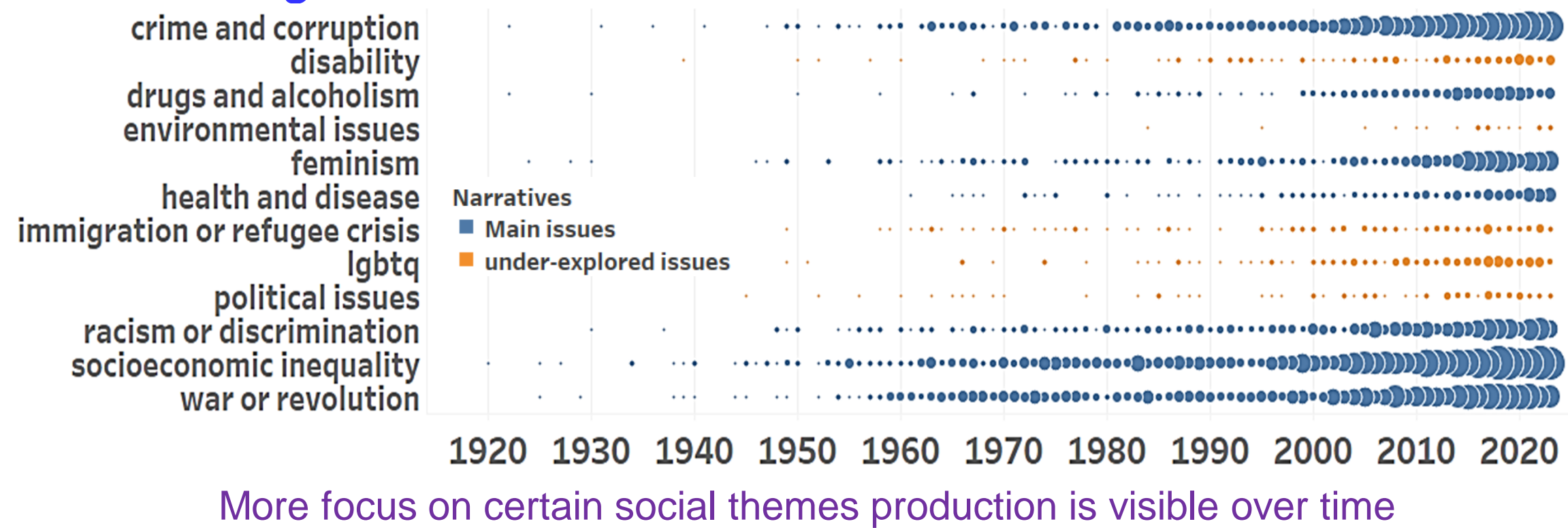Top discussed issues in Movies reflecting future focus on weak issues (like env. issues, political issues, etc.)
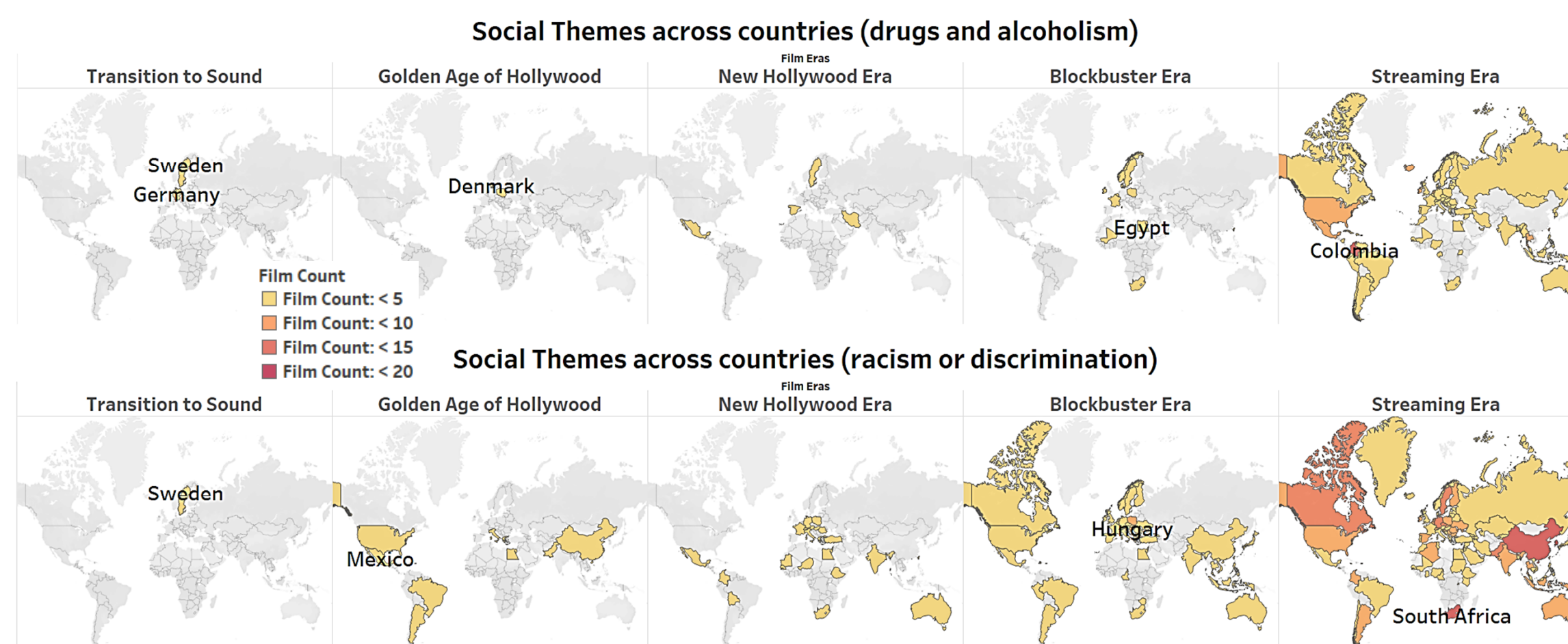
Prevalent Social Issues in Countries

Colour coding as above results
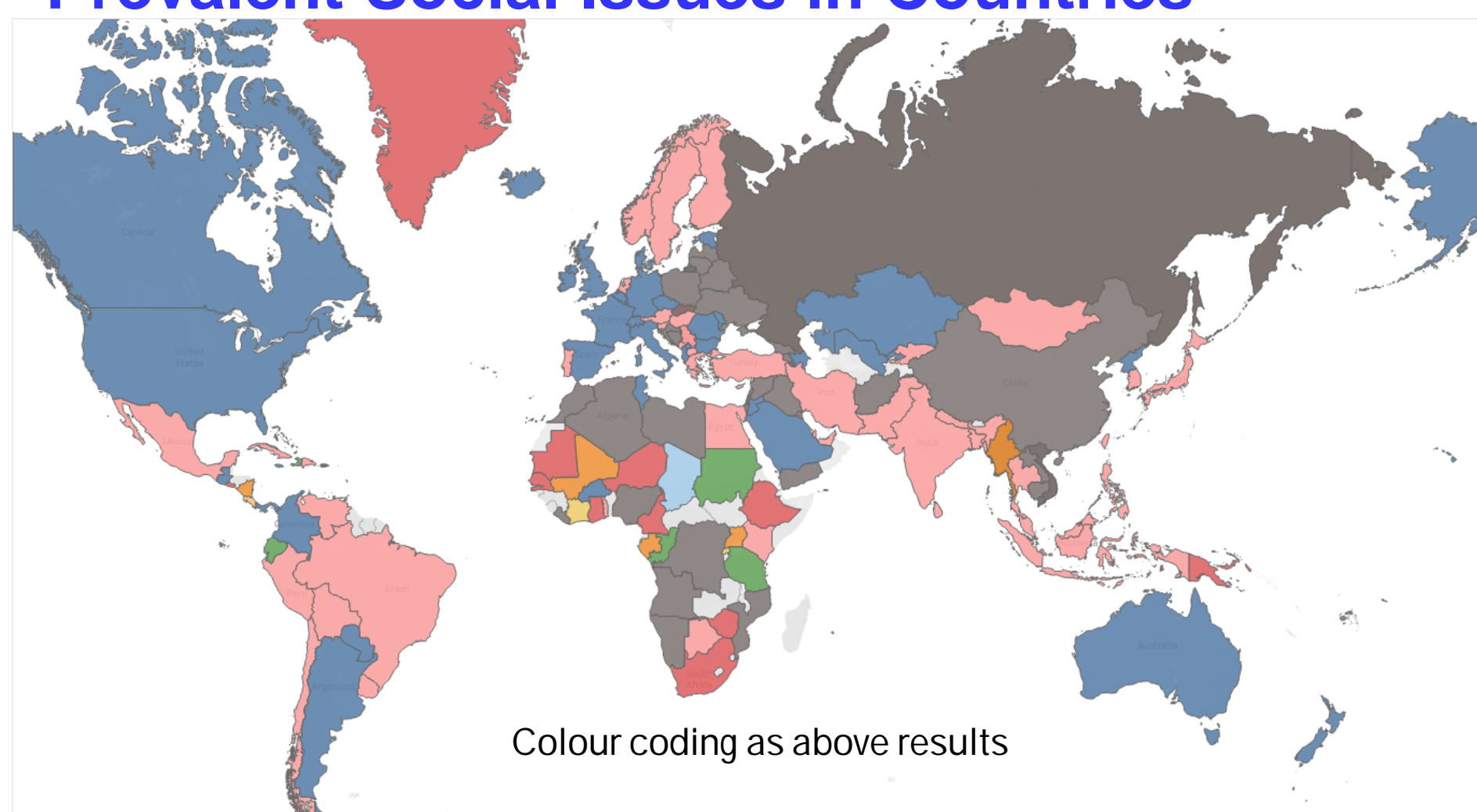
Dominant issues reflected in different regions, such as, North America make more movies on crime, Russia produces more war movies.

Results

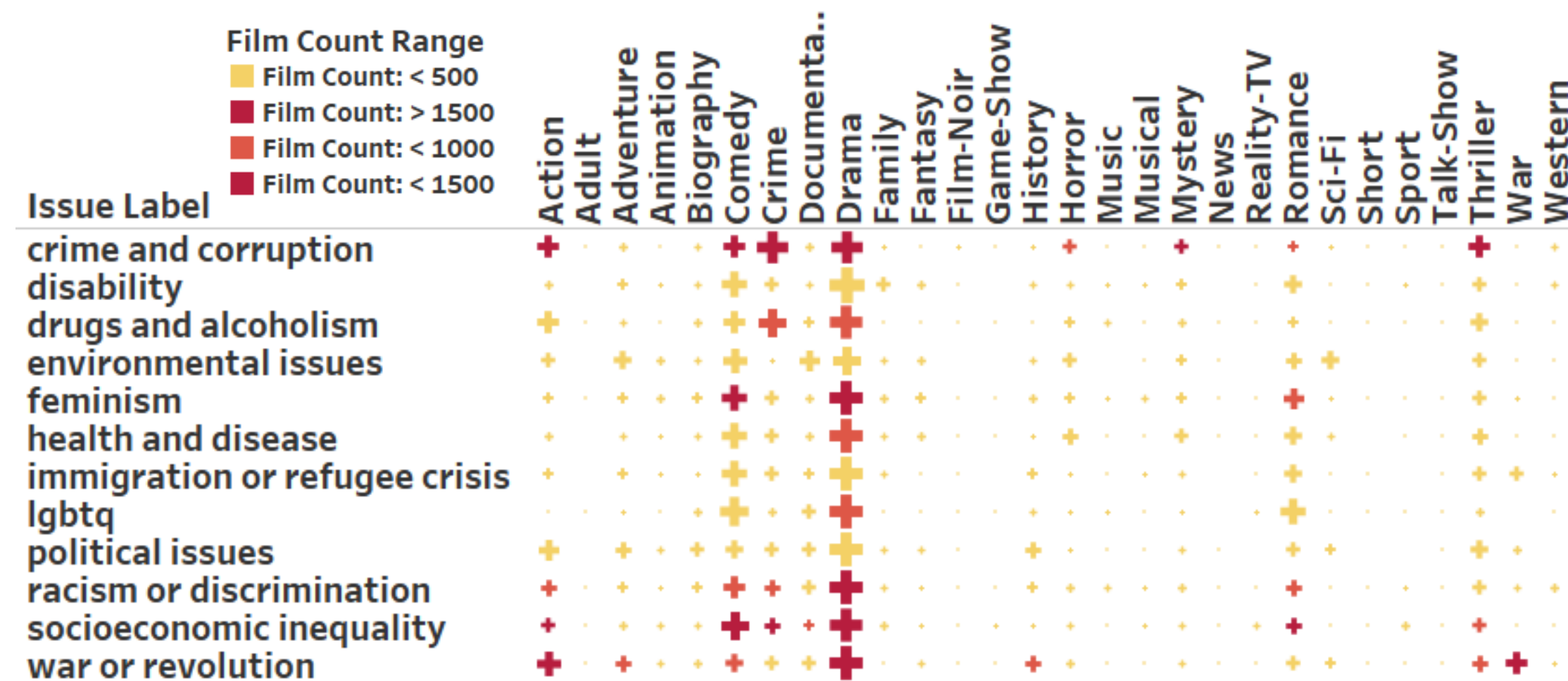### Progression of Social Issues

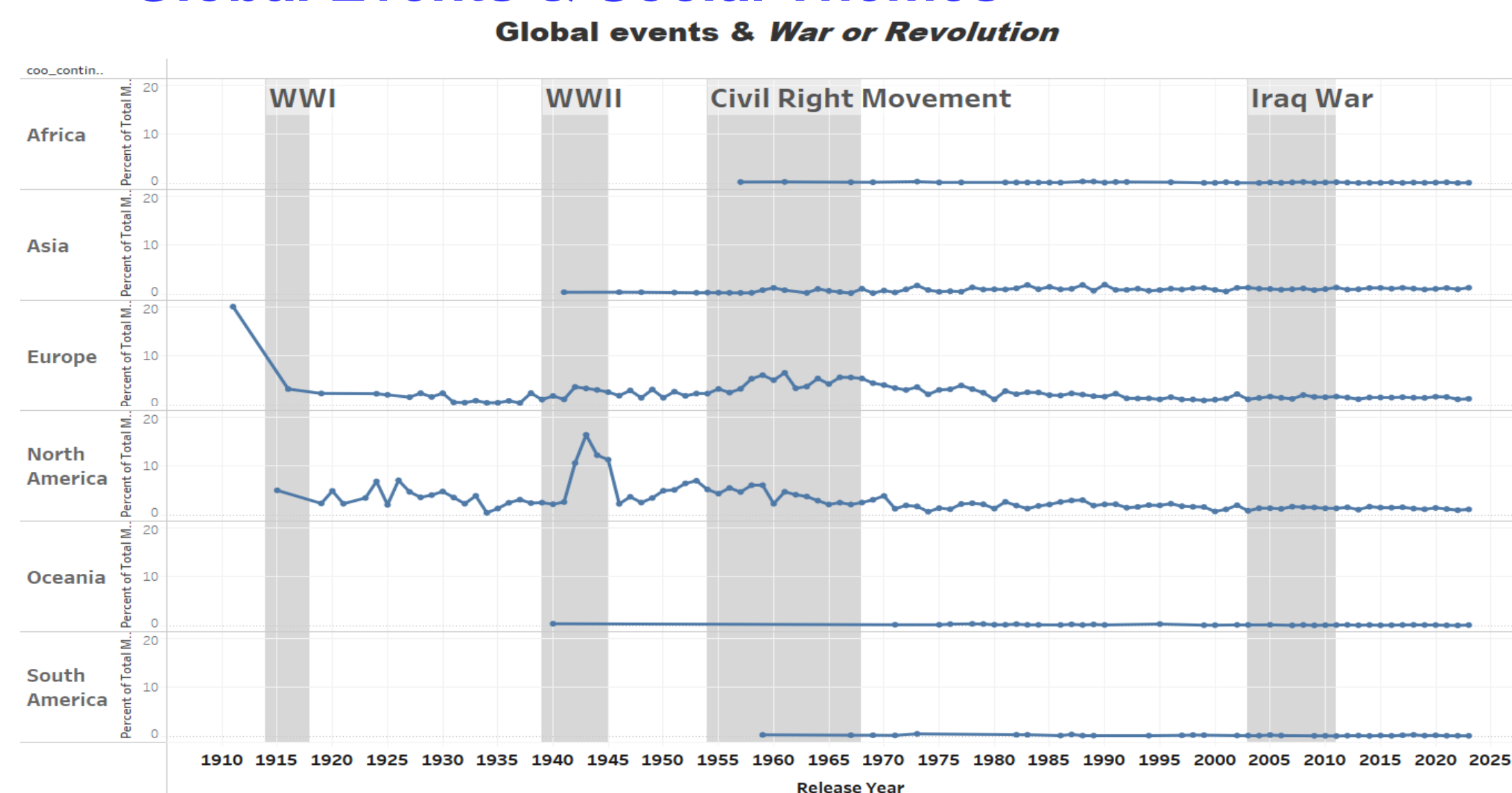More focus on certain social themes production is visible over time

More regional participation in production and regional differences is noticeable.

Genres & Social Themes

Gaps and distribution of genres across social themes in Movies

Global Events & Social Themes

Changes in film production align with global events

Recap of Main Findings

- Cinema evolves with both regional and global societal concerns.
- Future focus on under-represented issues is possible, particularly in non-Western nations.
- Globalization highlights regional differences and gaps in genre focus.
- Globalization across countries is evident with increased regional participation, especially in recent eras.
- Global interconnectedness fosters the emergence of new genres that explore underrepresented social themes.
- The peaks in film production frequently mirror the timing of global events.