Guide to Replicating the Bibliometric Query Process in Web of Science

Overview

This guide provides step-by-step instructions on how to extract bibliometric data related to evacuation research incorporating symmetry and asymmetry concepts. The process involves querying the Web of Science database using specific search terms and refining the results through various filtering criteria.

Querying Web of Science

The queries are structured to identify scholarly articles related to evacuation and symmetry/asymmetry. Follow these steps to perform the searches:

Step 1: Search by Title

Objective

Retrieve articles where the title contains evacuation-related and symmetry-related keywords.

Queries

1. Search for articles with evacuation-related keywords:

```
TI=(evacuation) OR TI=(evacuations)
```

Query ID: #1

Results Count: 10,204

2. Search for articles with symmetry/asymmetry-related keywords:

```
((TI=(symmetry)) OR TI=(asymmetry)) OR TI=(symmetric) OR TI=(asymmetric)
```

Query ID: #2

Results Count: 274,610

3. Combine both queries:

```
#2 AND #1
```

Query ID: #3 Results Count: 14

Step 2: Search by Abstract

Objective

Identify articles where the abstract contains evacuation and symmetry/asymmetry-related keywords.

Queries

1. Search for evacuation-related keywords in the abstract:

```
AB=(evacuation) OR AB=(evacuations)
```

Query ID: #4

Results Count: 31,079

2. Search for symmetry/asymmetry-related keywords in the abstract:

```
((AB=(symmetry)) OR AB=(asymmetry)) OR AB=(symmetric) OR AB=(asymmetric)
```

Query ID: #5

Results Count: 933,461

3. Combine both queries:

#4 AND #5

Query ID: #6

Results Count: 202

Step 3: Search by Keywords

Objective

Retrieve articles where keywords include evacuation and symmetry/asymmetry terms.

Queries

1. Search for evacuation-related keywords:

```
AK=(evacuation) OR AK=(evacuations)
```

Query ID: #7

Results Count: 7,370

2. Search for symmetry/asymmetry-related keywords:

```
((AK=(symmetry)) OR AK=(asymmetry)) OR AK=(symmetric) OR AK=(asymmetric)
```

Query ID: #8

Results Count: 151,840

3. Combine both queries:

```
#7 AND #8
```

Query ID: #9 Results Count: 9

Step 4: Consolidate Results

Objective

Merge results from Title, Abstract, and Keywords searches.

Query

#3 OR #6 OR #9

Query ID: #10 Results Count: 206

Step 5: Refine Results

Objective

Apply additional filters to focus on relevant studies.

1. Language Filter: Limit results to English-language publications.

```
(#10) AND LA=(English)
```

Query ID: #11 Results Count: 198

2. **Document Type Filter:** Restrict results to journal articles.

```
(#11) AND DT=(Article)
```

Query ID: #12 Results Count: 166

3. **Publication Year Filter:** Exclude publications from 2024.

```
(#12) NOT PY=(2024)
```

Query ID: #13 Results Count: 162

4. **Manual Selection:** Further refine the dataset by manually selecting papers that explicitly discuss evacuation in relation to symmetry/asymmetry based on titles and abstracts.

Query ID: #14

Final Selection Count: 46

Conclusion

This guide provides a structured approach to extracting relevant literature on evacuation research integrating symmetry and asymmetry concepts. The final dataset, refined through systematic query filtering and manual selection, ensures the inclusion of the most relevant studies.

For access to the dataset and queries used in this study, visit: https://github.com/LiviaDianaIancu/Symmetry-Asymmetry-Bibliometrix