**Testing Report – Lib search based**

**1. Objective**

This test focused mainly on Library search performance.  
A total of 31 documents were selected from ***segtest*, *seg2test*, and *seg3test*** to evaluate how well the library search could find and match them.  
The goal was to compare accuracy and speed with the previous web-based test.  
When the library search failed to locate a document, the web search was used as a backup to complete the results.

**2. Methodology**

* Dataset: 31 documents randomly sampled from the project corpus.
* Primary search method: Library search (University and partner repositories).
* Fallback: When the Library search failed, Web search was used as backup.
* Measurement: Each search attempt was timed individually, and result metadata were compared manually to verify correctness.

**3. Results Summary**

|  |  |  |
| --- | --- | --- |
| **Category** | **Count** | **Description** |
| Total samples | 31 | Full test set |
| Successful retrieval (Library) | 29 | Correctly matched by title/year/source |
| Failed retrieval | 2 | Both due to **year mismatch** (library record year differs from target year) |
| Backup via Web search | 9 | Web successfully retrieved when library failed |
| Average Library search time | **124.3 seconds/query** | Measured across 31 runs |
| Combined average (Library + Web fallback) | **253.01 seconds/query** | Total time including both phases |

**4. Observations**

* Library search produced stable and accurate metadata matches for the majority of test cases.
* Two failures were caused by discrepancies in publication years between the dataset metadata and library catalog records.
* Web fallback successfully resolved these missing cases but significantly increased the total runtime.

**5. Comparison with Previous Test (Web-Focused)**

|  |  |  |
| --- | --- | --- |
| **Metric** | **Previous (Web test)** | **Current (Library test)** |
| Primary search source | Web | Library |
| Avg. time/query | 80s | 124.3s |
| Failure reason | Unreachable link | Year mismatch only |
| Overall success rate | 80% | **94% (29/31)** |

**6. conclusion**

The Library search performed reliably across most of the tested documents, showing strong accuracy and consistency in metadata matching. Two failures occurred due to year mismatches between the dataset and library records, but these were successfully recovered through the web search fallback.  
Including web fallback ensured full coverage, though it increased the total search time. Future improvements could focus on handling year discrepancies and optimizing combined search performance to reduce total processing time.