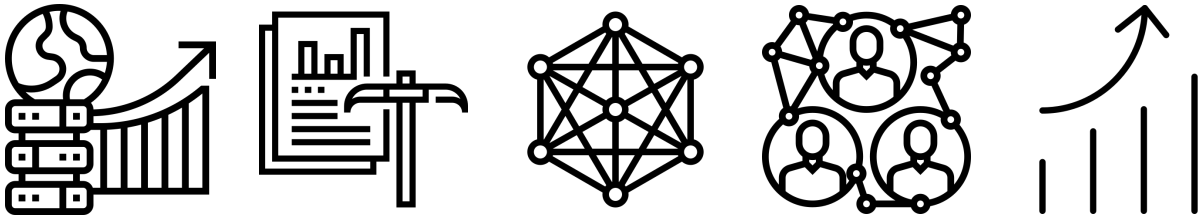

A Multi-Faceted Multi-Stakeholder Approach for Increased Visibility of ETDs in Zambia

Lighton Phiri <lighton.phiri@unza.zm>
Department of Library and Information Science
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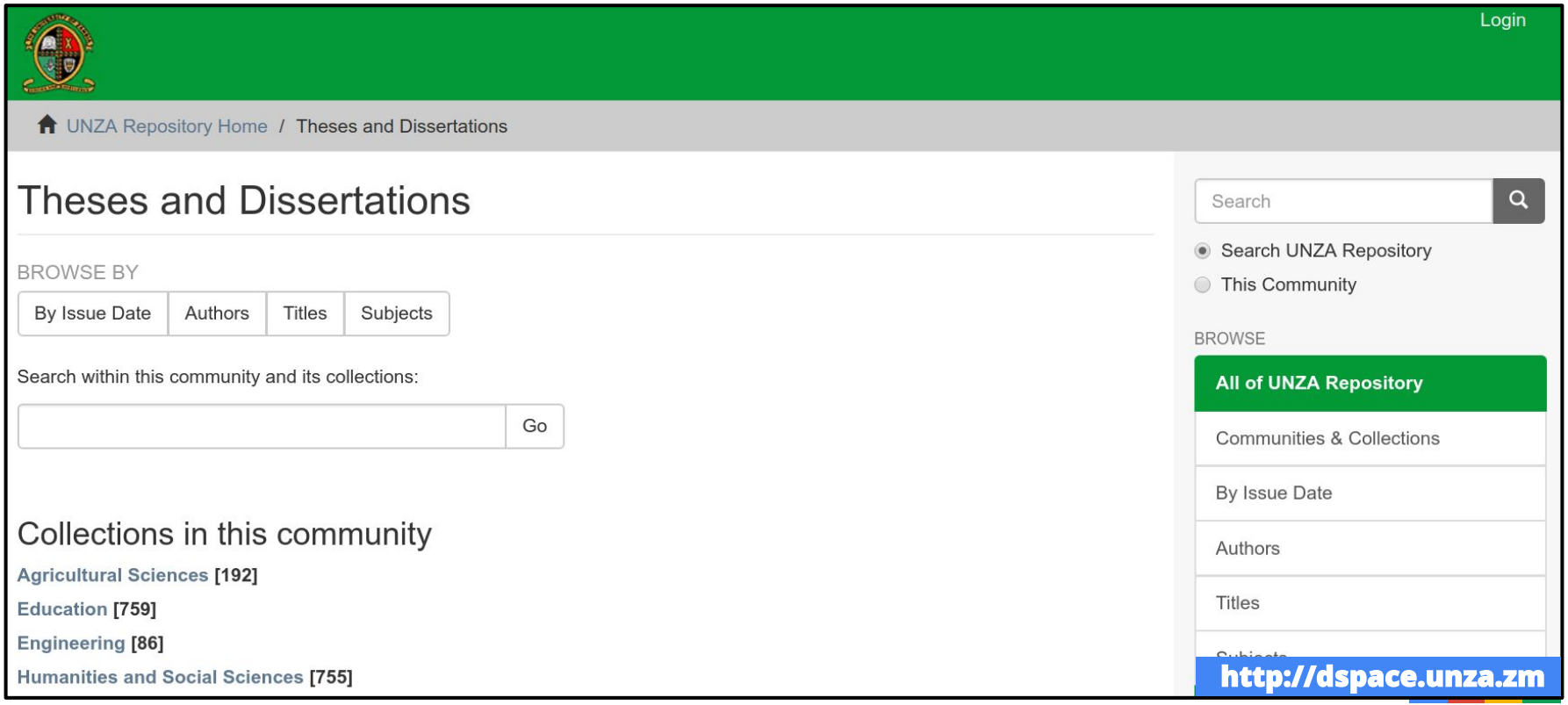
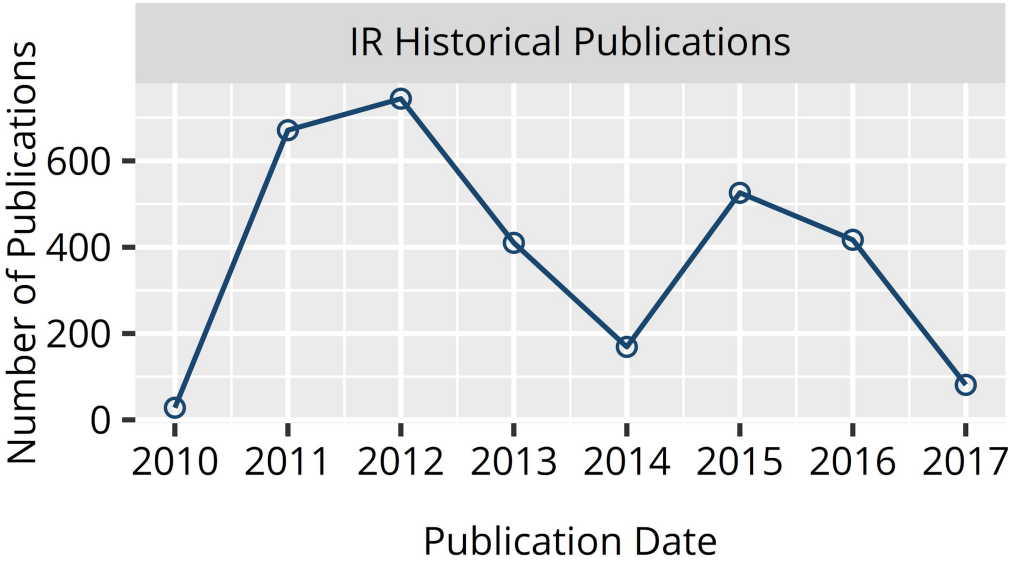
ETD '19 | Porto, Portugal | November 6–8, 2019

Introduction (1/3)



Introduction (2/3)

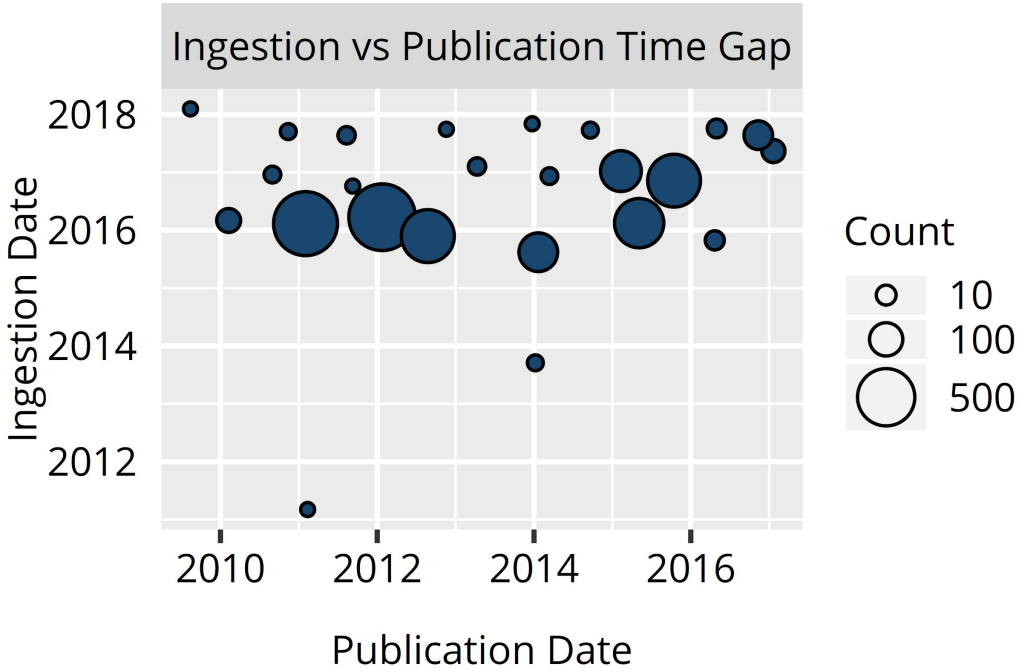
- **The university of Zambia has had a functional Institutional Repository since 2012, with a significant uptake of Electronic Theses and Dissertations (ETDs).**



L. Phiri, "Research Visibility in The Global South" In Proceedings of ICICT 2018, 2018.

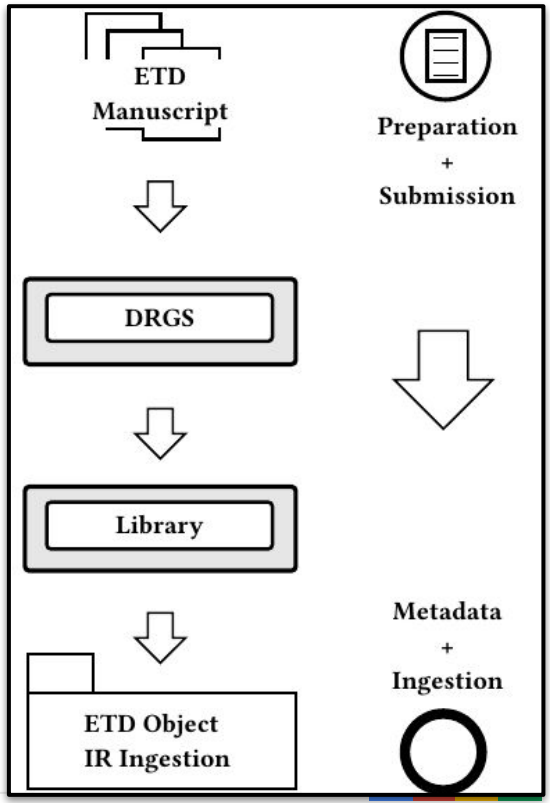
Introduction (3/3)

- Ingestion of ETDs is not timely
- Huge time gaps between submission and eventual ingestion of ETDs
- ETDs have missing and incorrect descriptive metadata



Current ETD Submission Workflow

- **Key stakeholders**
  - Graduate students—Manuscript preparation and submission
  - Directorate of Research and Graduate Studies (DRGS)—Manuscript verification
  - The UNZA Library—Manuscript ingestion into IR
    - Metadata preparation and association
    - Ingestion via DSpace submission workflow
- **ONLY two individuals responsible for metadata tagging and ingestion**



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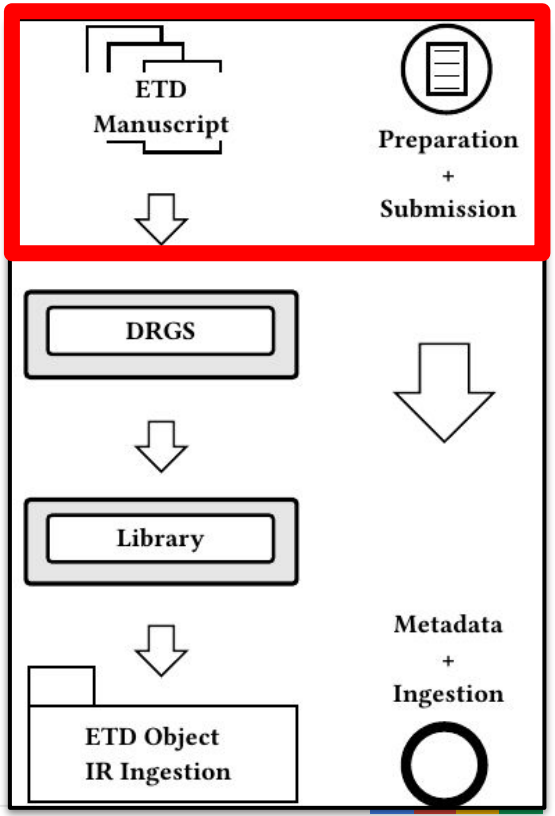

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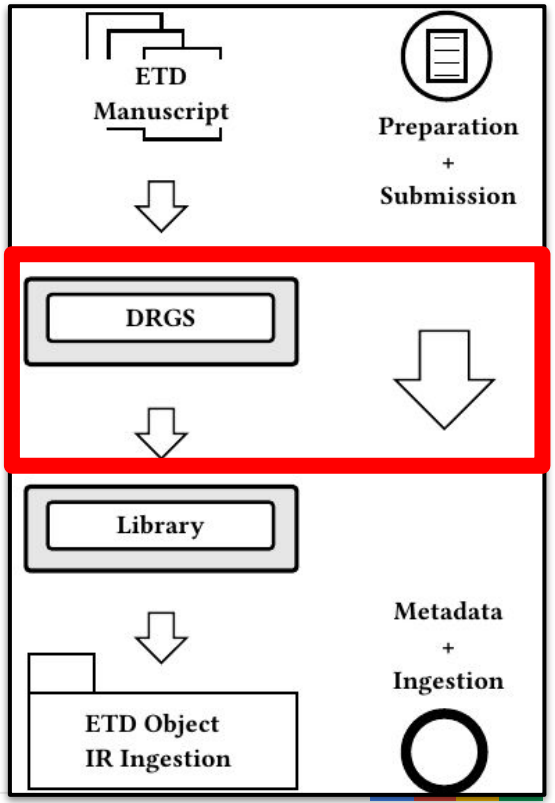

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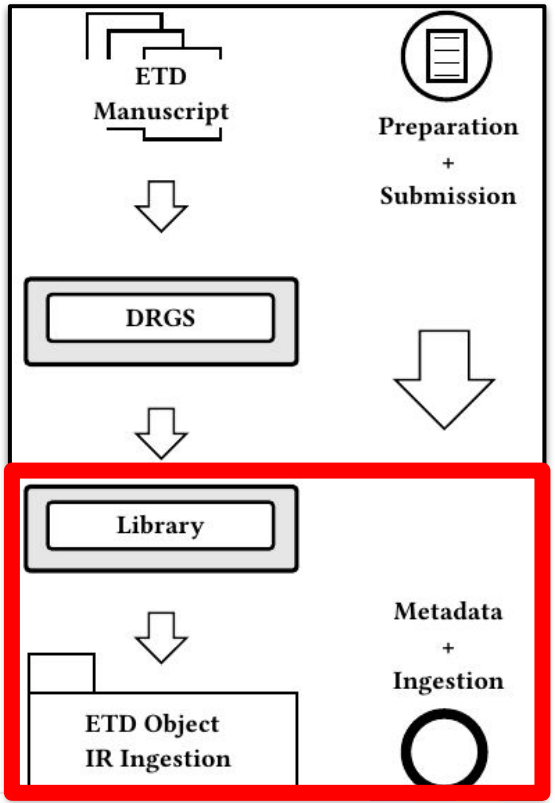
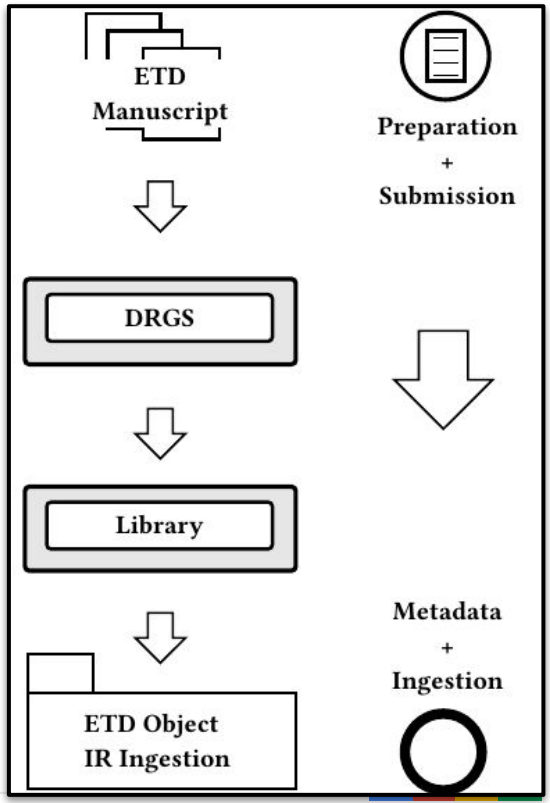


Current Work (1/3)

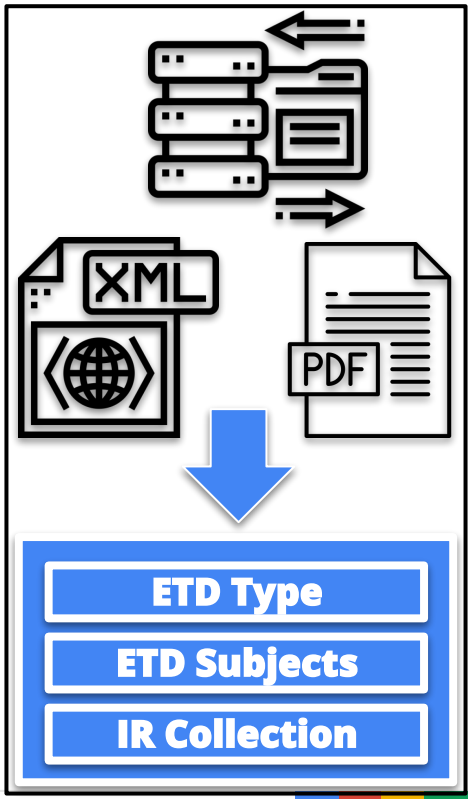
- **Exploration of effective submission workflow that involve multiple stakeholders**
  - Integration of workflow into IR submission workflow to eliminate current manual process

"Multi-Stakeholder Approach for Effective Deposit of Repository Objects"
Angela Nyirenda, MA LIS (Current).



Current Work (2/3)

- **Using machine learning techniques to automatically classify ETDs**
  - Cut down on potential errors resulting from manual association of metadata
  - Reduce the amount of time taken to ingest ETDs into the IR
- **Implementation of tools and plugins that interface with the classification models**



Current Work (2/3)

98.1%

ETD Type

0.99—Precision
0.75—Recall
0.83—F-Score

- ETD No. of Pages
- Random Forests

81.1%

ETD Collection

0.82—Precision
0.81—Recall
0.81—F-Score

- ETD Abstract
- SGD Classifier

81.7%

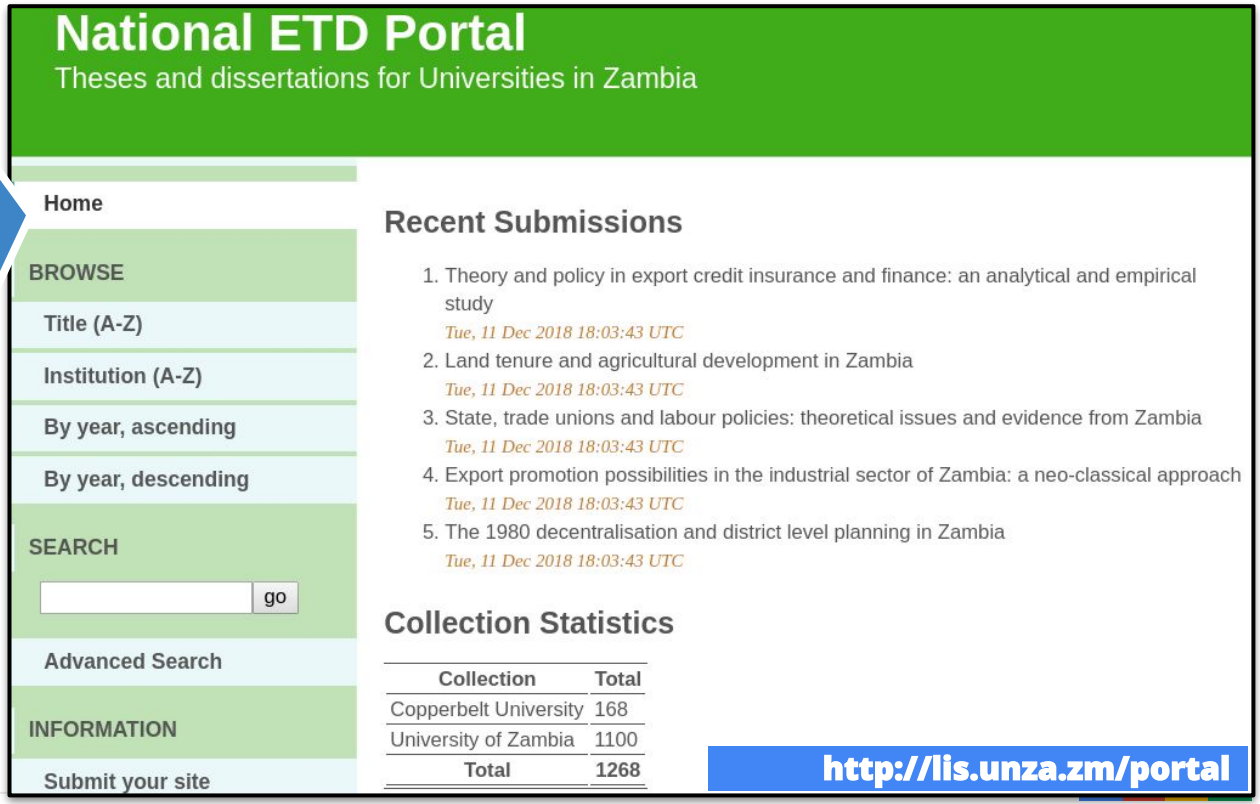
ETD Subject

0.80—Precision
0.77—Recall
0.77—F-Score

- Title+Abstract+MeSH
- SGD Classifier

Current Work (3/3)

Classification of ETDs in downstream aggregate services

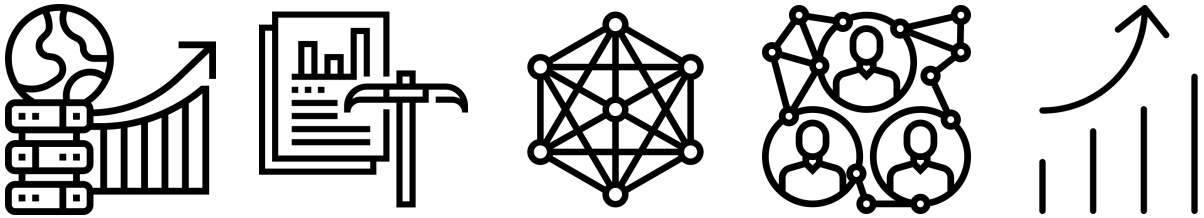


Conclusion

- **We are working towards a broad goal of increasing visibility of ETDs in Zambia**
  - Public and private Higher Education Institutions
- **We are working towards Zambia's Vision 2030 goal of because an information and knowledge-based society**
  - Make valuable research by postgraduate students accessible by government and non-profit organisations

Bibliography

[1] L. Phiri (2018) “Research Visibility in the Global South: Towards Increased Online Visibility of Scholarly Research Output in Zambia” http://lis.unza.zm/~lightonphiri/papers/paper-icict18-online_visibility.pdf



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