Massive Text Indices

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Large Data Sets

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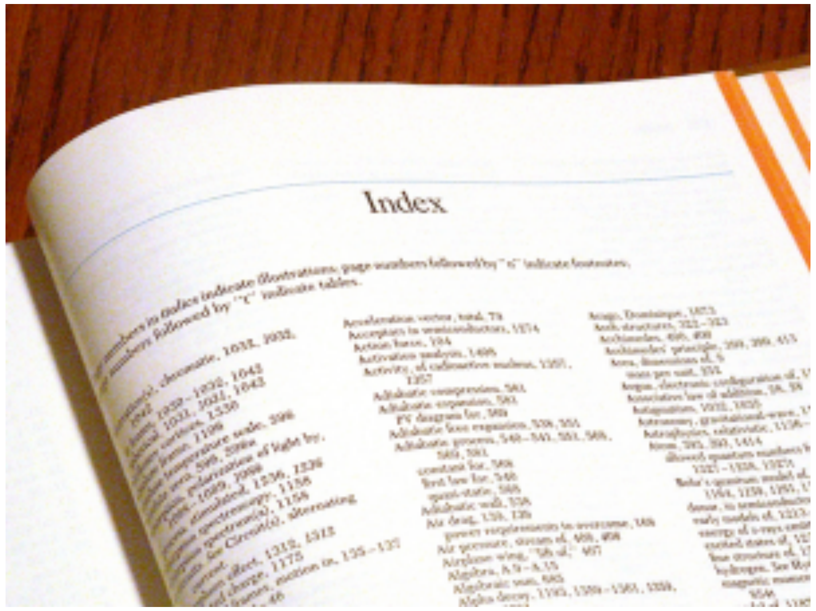
- in particular: **texts**
- **indexing** required (for fast search)

Text Indexing

- Problem: **preprocess** a text *T* for **fast** pattern queries (without scanning *T* again)



Text Indexing

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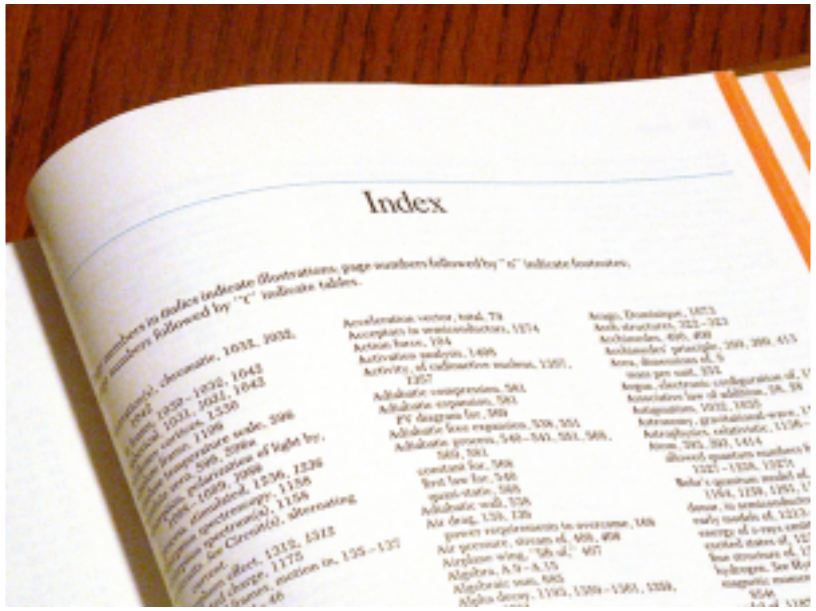
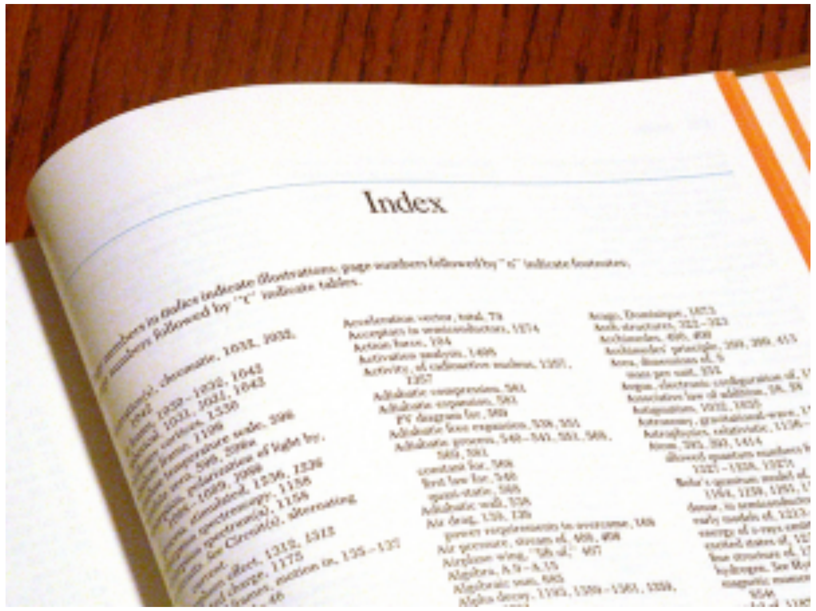
  - just preprocess once (*T* static)



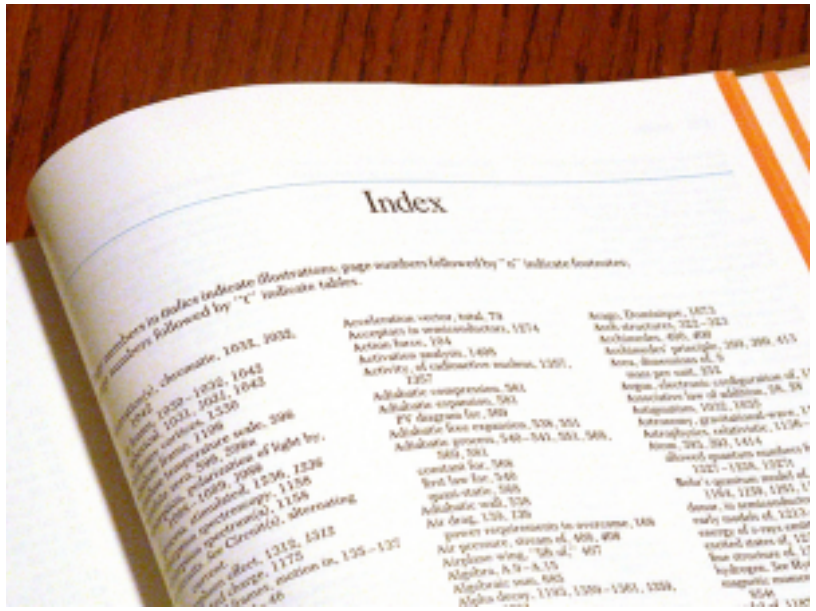
Text Indexing

- Problem: **preprocess** a text *T* for **fast** pattern queries (without scanning *T* again)
  - just preprocess once (*T* static)
  - many pattern searches



Text Indexing

- Problem: **preprocess** a text *T* for **fast** pattern queries (without scanning *T* again)
  - just preprocess once (*T* static)
  - many pattern searches
  - e.g. PDFs



3 Issues:

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Construction

3 Issues:

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Storage

3 Issues:

Construction

Storage

Querying

Project Goals

- Computation/Storage:
  - distribution over hundreds of nodes
  - nodes make full use of computing power
    - external memory
    - succinct data structures
    - shared memory parallelism (CPU/GPGPU)
- Query Distribution?

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- Computation/Storage:
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combination?

- Query Distribution?