IR-BASE: An Integrated Framework for the Research and Teaching of Information Retrieval Technologies

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Outline

1. Introduction – what IR-BASE is
2. Who/what IR-BASE is for
3. Advantages of IR-BASE
4. How to use IR-BASE
5. Example Applications
6. Present State
7. Conclusions and Future Work
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IR-BASE is an architecture for the development of modular components for building IR systems, including:

- Datasets
- Available components pool
- User-developed components
- Guidelines for component development
- Documentation
- Web-site
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Who/what IR-BASE is for

- **Researchers**
  Allows a rapid development of prototypes.

- **Teachers**
  Provides examples for classes and project assignments.

- **Students**
  Provides a quick startup for their projects.
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Advantages of IR-BASE

- Reusable implementations for the components
- Well tested, modifiable, expandable components
- Ability to construct different combinations
- Easy experimentation of new ideas
- Open source development
- Cooperation between users worldwide
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How to use IR-BASE

Figure: Example of an IR system built with IR-BASE components.
Example Applications

- “Webpage Ranker”
  - 1. Web crawler
  - 2. Indexer
  - 3. Document ranking module

- “Paper Finder”

- It is possible to change indexing/ranking strategies for any of the applications by replacing components 2/3.
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Present State

- Simple components
  Developed by different students
- No web service

Major difficulty: students get jobs, dropout of college, new students only in the following year.
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Conclusions and Future Work

- Behind schedule
  - Need to boost component development
  - Need to increase appeal to students
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