

t.INRG - Information Retrieval Grundlagen

Person responsible for the course: Martin Braschler, bram

Credits: 4

Valid for: 2011/2012

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Learning objectives:

"Still googling around, or are you finding things yet?" - how to make information usable and exploitable.

- You learn how to extract and process information from unstructured and structured data
 - You get to know existing retrieval systems (such as web search/Google, domain-specific search etc.) and you acquire the competence to perform successful searches
 - You get a thorough overview of the area: basics, theory, state of the art, practice and evaluation
 - You are capable of selecting the right technology for your searching needs, and to manage an information retrieval project successfully
 - You can conduct small evaluations of information retrieval systems in a professional manner
 - You have increased your competence by complementing theoretical knowledge with practical work in the lab sessions and by working on a short term project
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Course content:

The vast majority of newly produced data is nowadays stored in unstructured form. The course "Information Retrieval Grundlagen" (basics of information retrieval) highlights what information can be extracted from such data - far beyond just using "classical search".

- Introduction to information retrieval (IR): definitions, scope, data-information-knowledge, the "search paradoxon" and the "retrieval problem"
 - Basics: models, probability ranking principle, rules for ranking
 - Indexing/matching: text analysis, weighting
 - Systems/architecture: search engines, web search (e.g. Google), meta search, data structures
 - IR projects supporting knowledge-based business processes
 - Evaluation of IR systems: approach, test collections, case study
 - Advanced techniques (e.g. categorization, multimedia retrieval, multilingual retrieval)
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Previous knowledge:

Basic computer science subjects

Database basics

Teaching method:

| Type of lesson: | Number of lessons per week: |
|--------------------|-----------------------------|
| Lecture | 14*2 |
| Tutorial/Practicum | 14*2 |
| Group teaching | |
| Block instruction | |
| Seminar | |

Assessment:

According to the table or as specified in writing by the lecture at the beginning of the semester!

| Number | Type | Weighting |
|--------|--------------------------|-----------|
| 1 | End of term exam | 80 |
| | Exam during the semester | |
| 1 | Further assessments | 20 |

Language of instruction:

German

Instruction material:

Set of powerpoint slides

Comments:

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