

Information Storage and Retrieval ***(IS 313)***

Lecture 1

Introduction to the Course

Dr. Ahmed Elsayed
2023 - 2024

Course Info.

- **Lectures:** Thursday (10 - 12)
- **Instructor:** Dr. Ahmed Elsayed
 - Office hours: Wednesday 8:00 - 10:00
 - Contact: ahmedYakoup@fci.helwan.edu.eg
- **Assistant Instructor/TA: ??**
- **Textbook:**
 - Christopher D. M., Prabhakar R. and Hinrich S. **An Introduction to Information Retrieval**. Cambridge University Press Cambridge, England

Assessment Scheme

- Mid-Term Exam: 20 %
- Project: 20 %
- Final Exam: 60 %
- **Total :** 100 %

General Rules



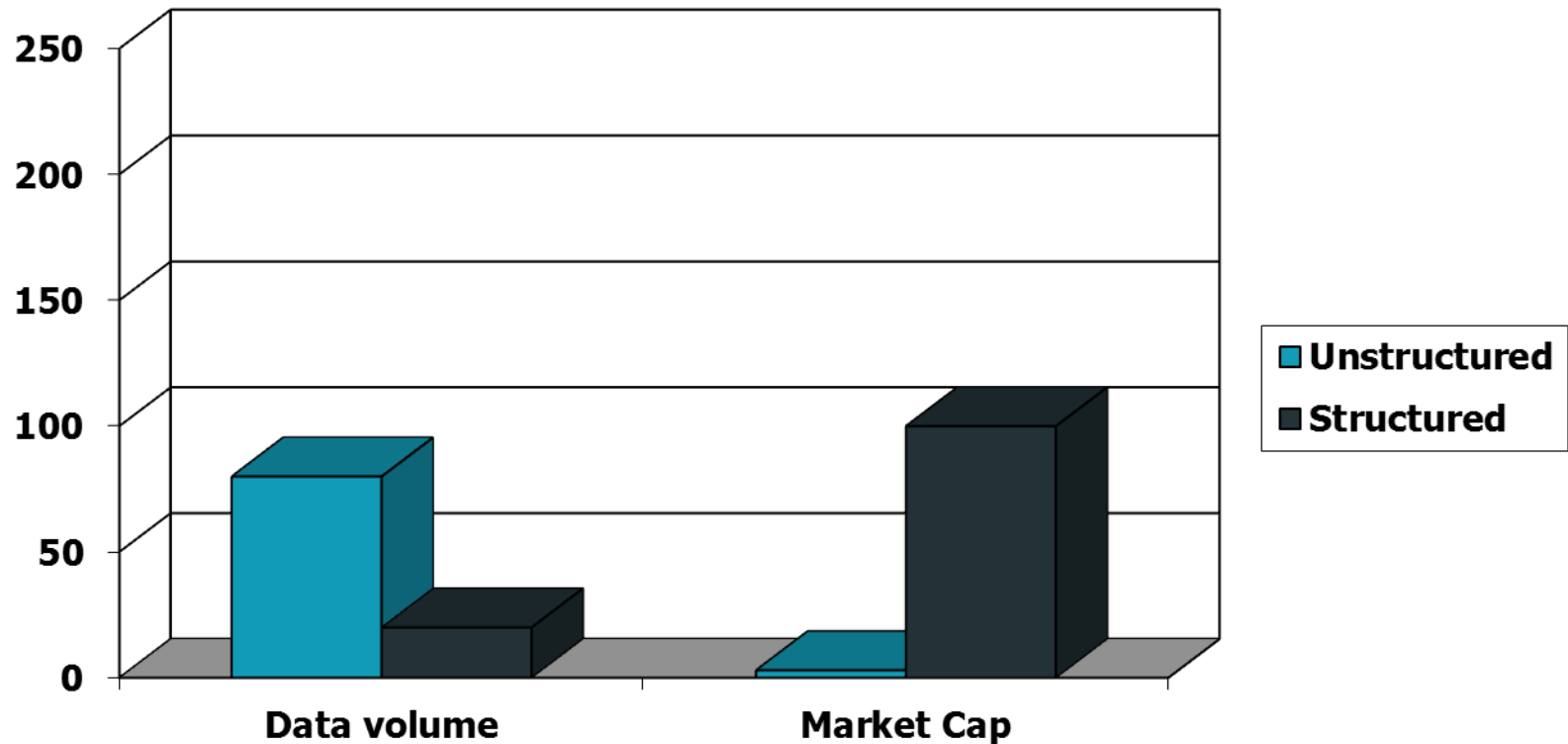
Introduction to **Information Retrieval**

Introducing Information Retrieval
and Web Search

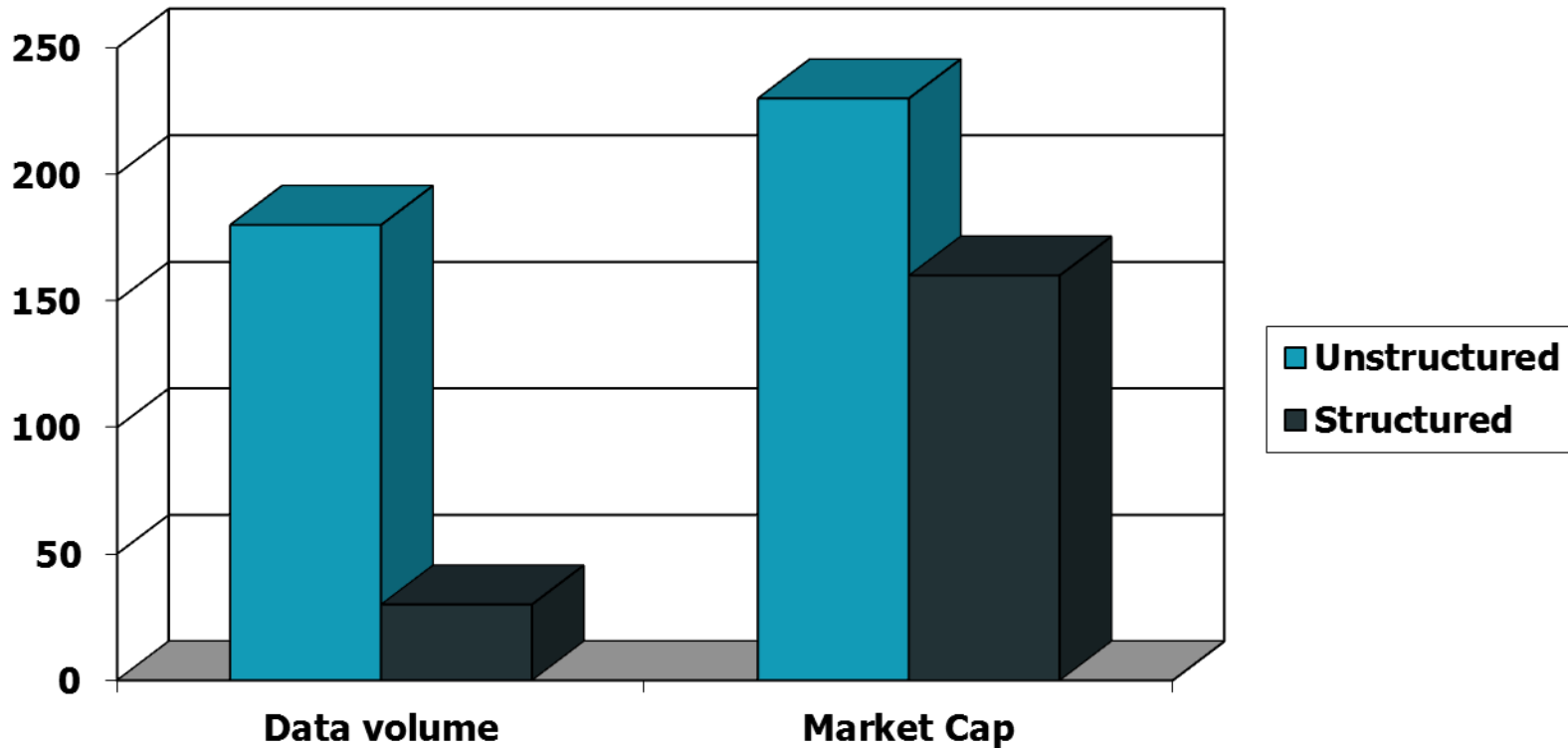
Information Retrieval

- Information Retrieval (IR) is finding material (usually documents) of an unstructured nature (usually text) that satisfies an information need from within large collections (usually stored on computers).
 - These days we frequently think first of web search, but there are many other cases:
 - E-mail search
 - Searching your laptop
 - Corporate knowledge bases
 - Legal information retrieval

Unstructured (text) vs. structured (database) data in the mid-nineties



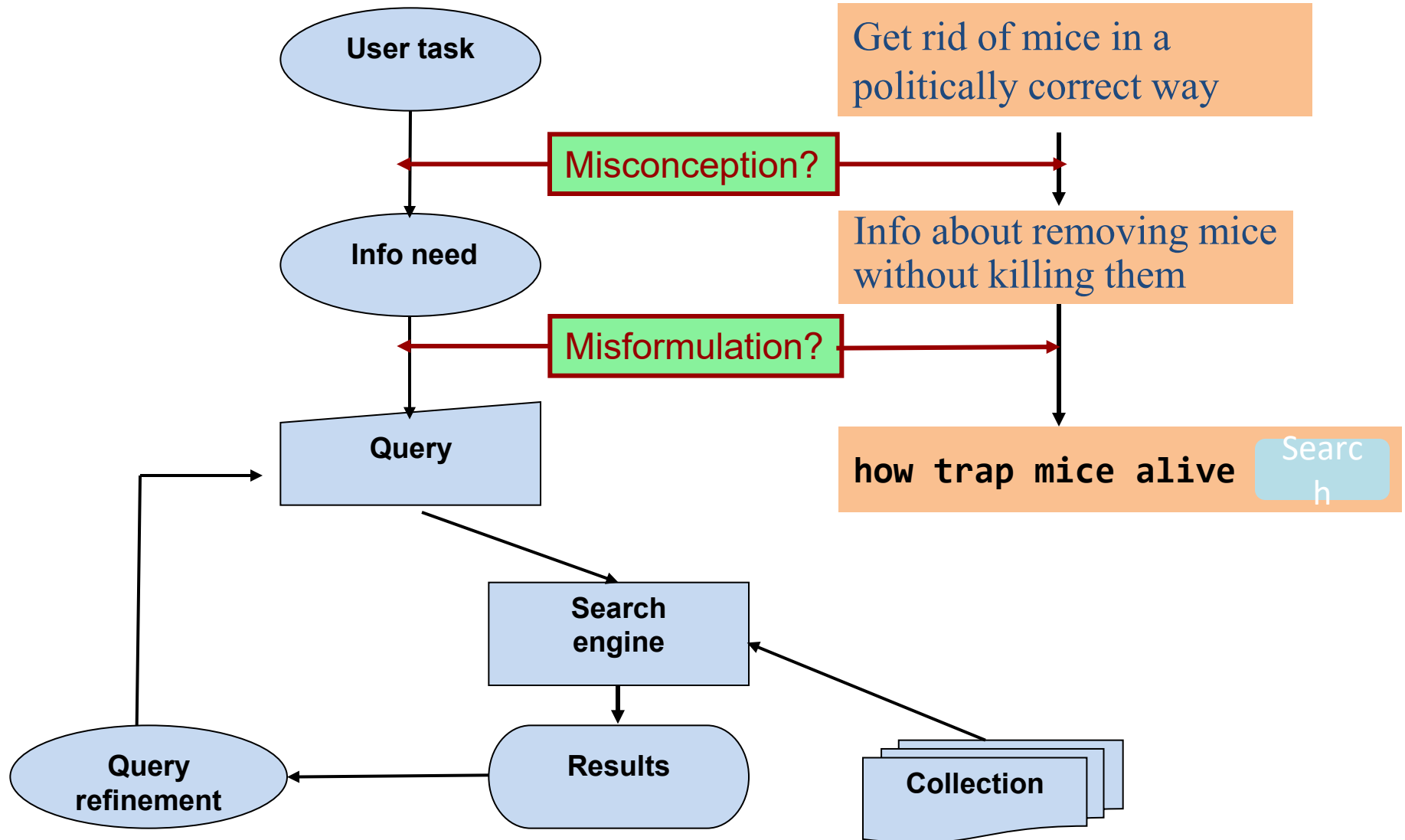
Unstructured (text) vs. structured (database) data today



Basic assumptions of Information Retrieval

- **Collection**: A set of documents
 - Assume it is a static collection for the moment
- **Goal**: Retrieve documents with information that is **relevant** to the user's **information need** and helps the user complete a **task**

The classic search model



How good are the retrieved docs?

- *Precision* : Fraction of retrieved docs that are relevant to the user's **information need**
- *Recall* : Fraction of relevant docs in collection that are retrieved
 - More precise definitions and measurements to follow later

Course syllabus

Topic	
Introduction to the Course	1
Boolean Retrieval Model	2
The Term Vocabulary and Postings Lists	3
Scoring and Term Weighting	4
Vector Space Model	5
Evaluation in Information Retrieval	6
Index Construction	7
Dictionaries and Tolerant Retrieval	8