

Chapter 17: Putting Everything Together

This is the end, my only friend, the end.

-- Jim Morrison
(of The Doors)



*Every new beginning comes from
some other beginning's end.*

-- Seneca

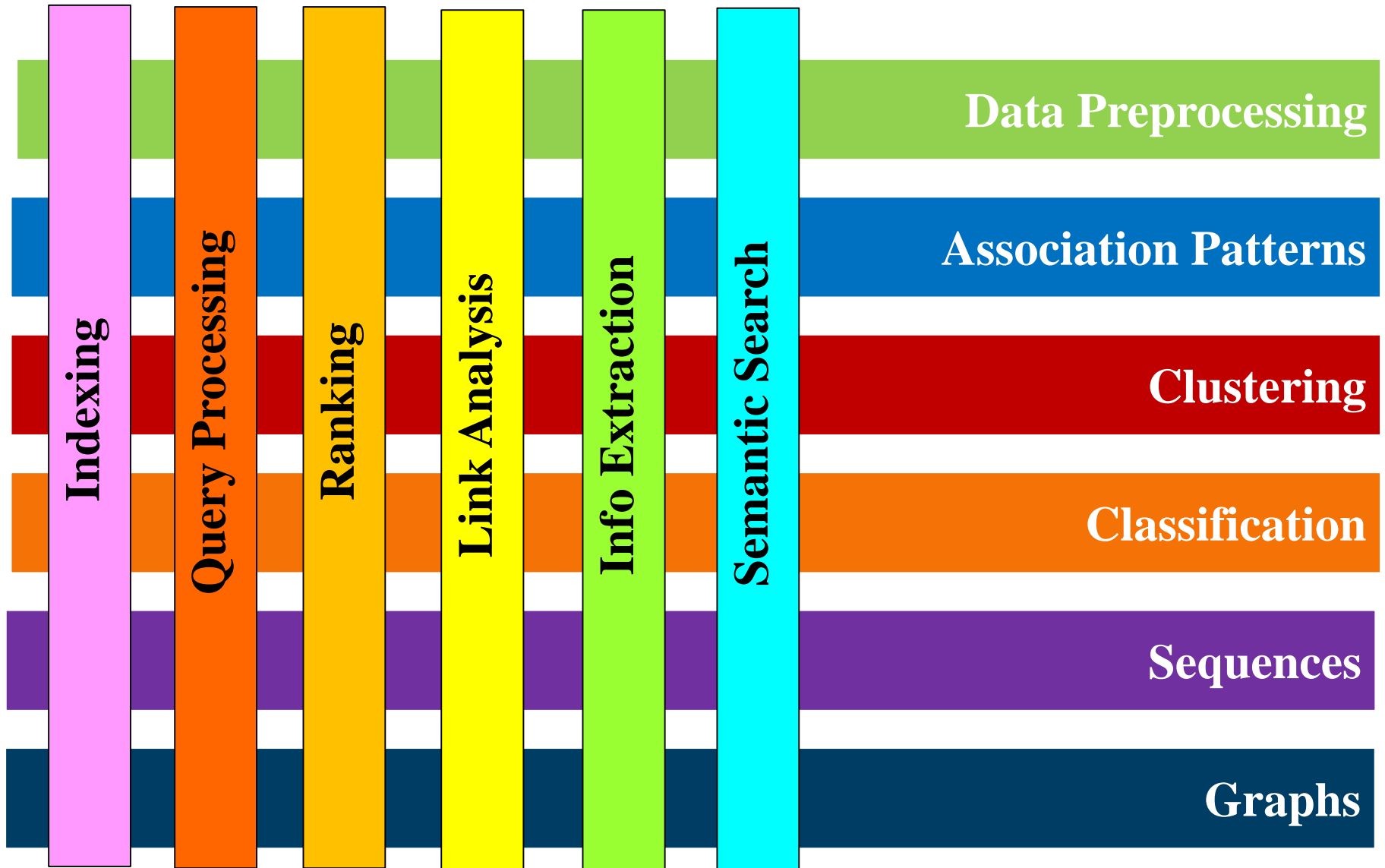


*When shall we three meet again?
In thunder, lightning, or in rain?*

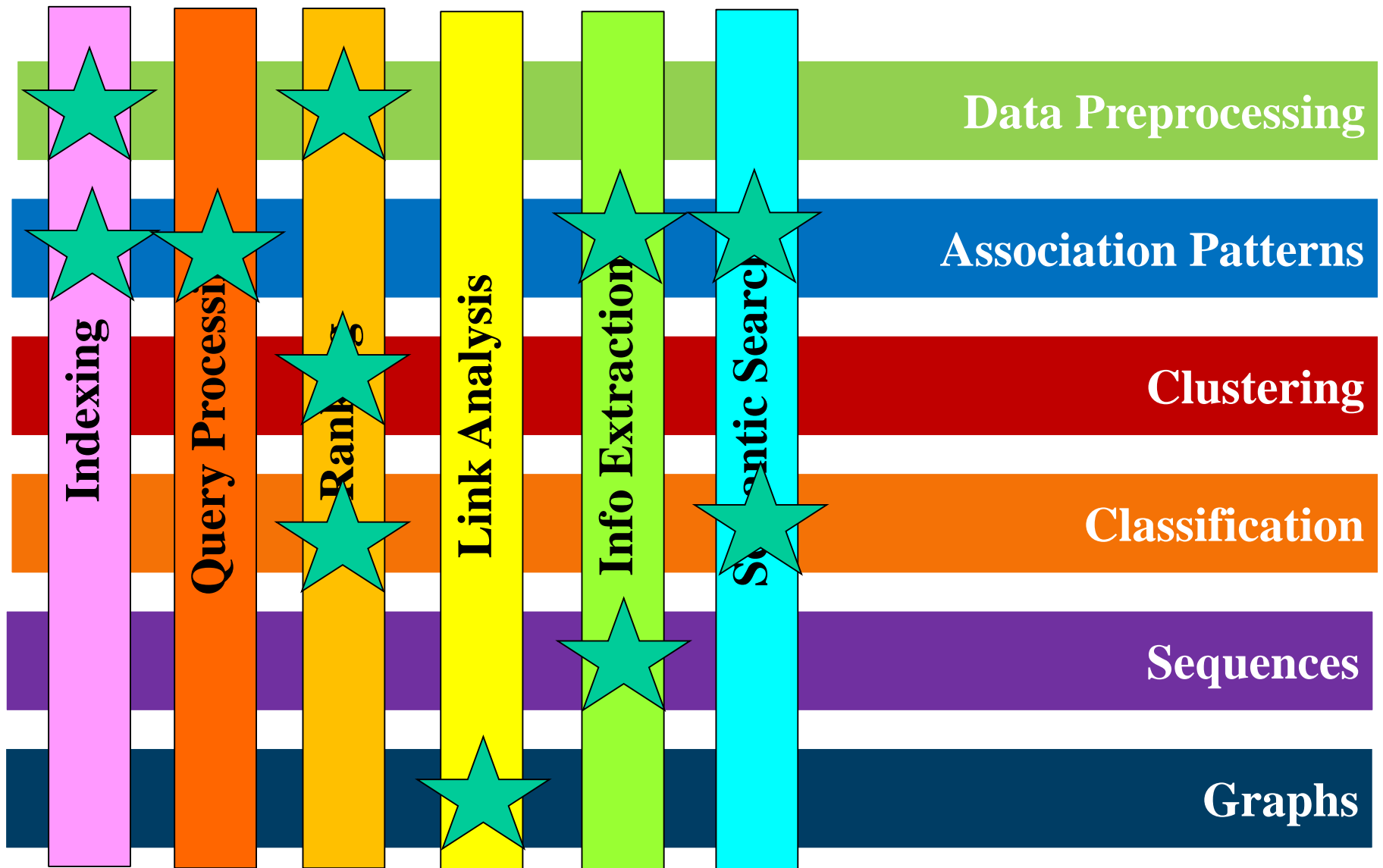
-- Three Witches
(Shakespeare's
Macbeth)



Information Retrieval and Data Mining





Information Retrieval and Data Mining



Evolution (and Future) of Search Engines

Library catalogs


tf * idf
SMART


Probabilistic IR



PageRank


> 1 Bio pages


Language Models

Click graphs

Knowledge graphs


Things not strings


Deep QA


Learning to Rank


Privacy and trust


Multimodal search


Conversational QA



Take-Home Message

Search engines are one of the most impressive results of CS!

Information retrieval is the science of search engines.

It comprises and integrates many concepts and methods from algorithms, statistics, graphs, text analysis – and **data mining**!



Thank you very much
for your participation!

