

Trust and online reputation

Technologies for democratic society: Week 4

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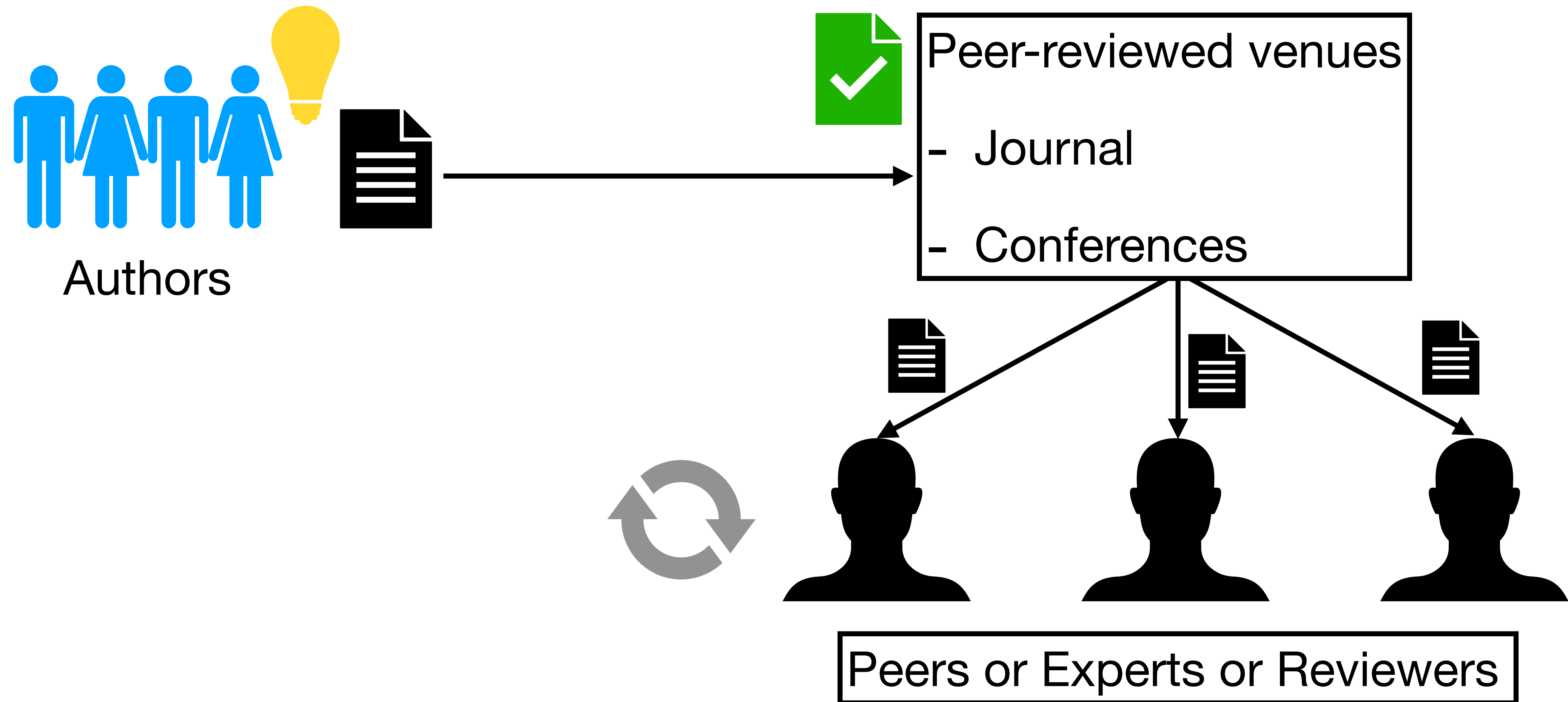
- Recap
- Scholarly peer-reviewed publications
- Search engine manipulations

In the previous lecture you saw ...

- What is influence in online media?
 - Specifically for Twitter (now X)
- Evaluation of influence on Web
 - Using PageRank

Scholarly peer-reviewed publications

What are peer-reviewed publications?



A brief history of peer reviewing

- Started in 1665
- Heavily developed in the 18th and 19th Century

Purpose of peer-reviewed publications

Analyze content of research before publication

1) Identify potential errors



Filtering bad / wrong results

2) Apply scientific method



Ensures best practices of research area

3) Feedback / constructive critique



Potential improvements

Peer reviewing tools

Journals

Long review cycles

Most disciplines

Conferences

Short review cycles

Computer science

Workshops

Faster turnaround

Preliminary results

Peer reviewing tools (contd...)

Pre-prints

E.g. - arXiv.org,
eprint.iacr.org

Non-peer reviewed

Lightweight

Timestamped

Any field; particularly useful for
fast-moving fields like AI

Influence metrics in research

What are the metrics for influence in research?

- No. of citations
- No. of publications
- No. of accepted grant proposals
- h-index

Manipulation of metrics

Honorary authorship

Coercive citations

Citation rings

Blinding

Reviewers see
authors' identities

Authors see
reviewers' identities

Non-blind



Single-blind



Double-blind



Search engine manipulation

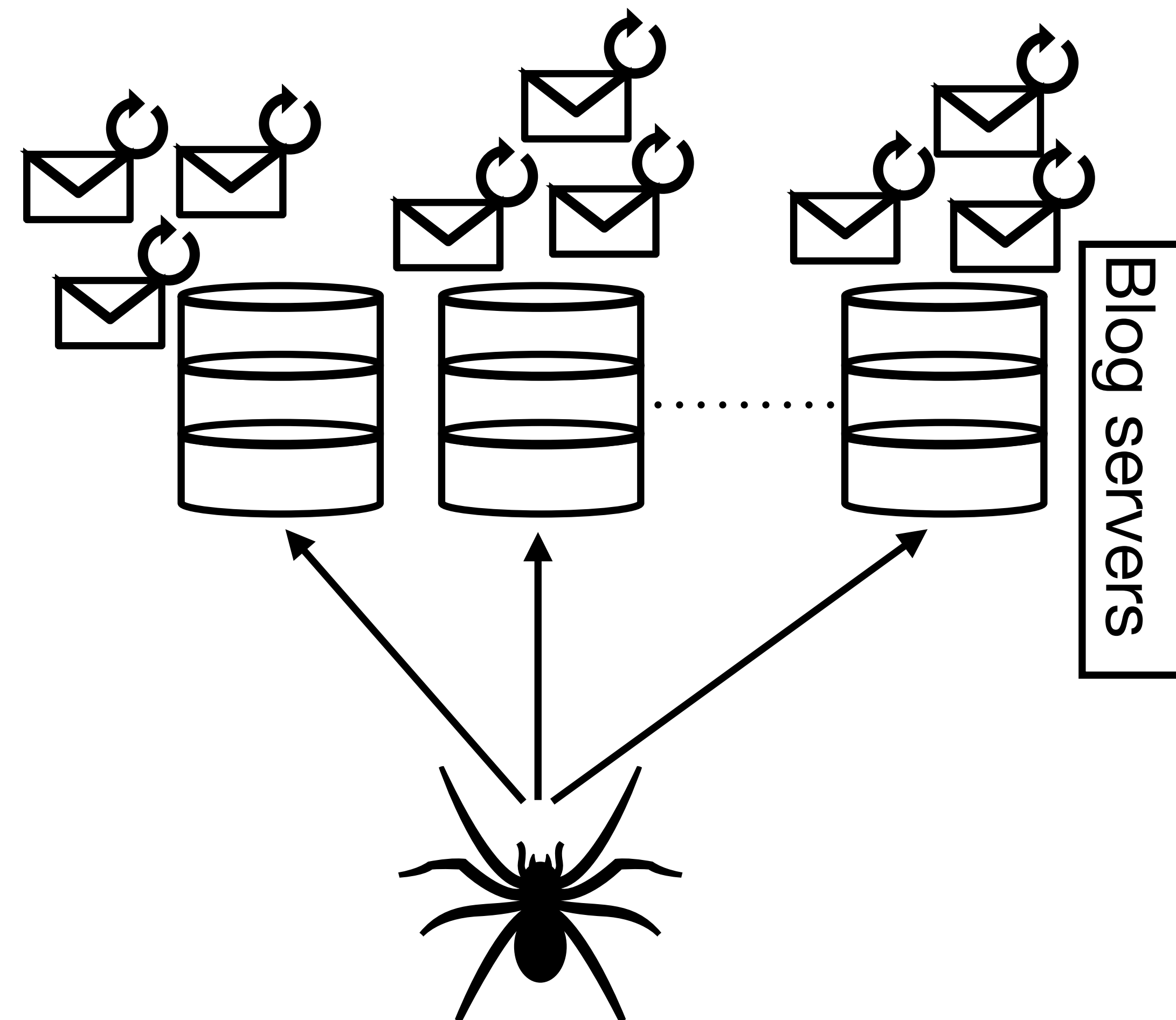
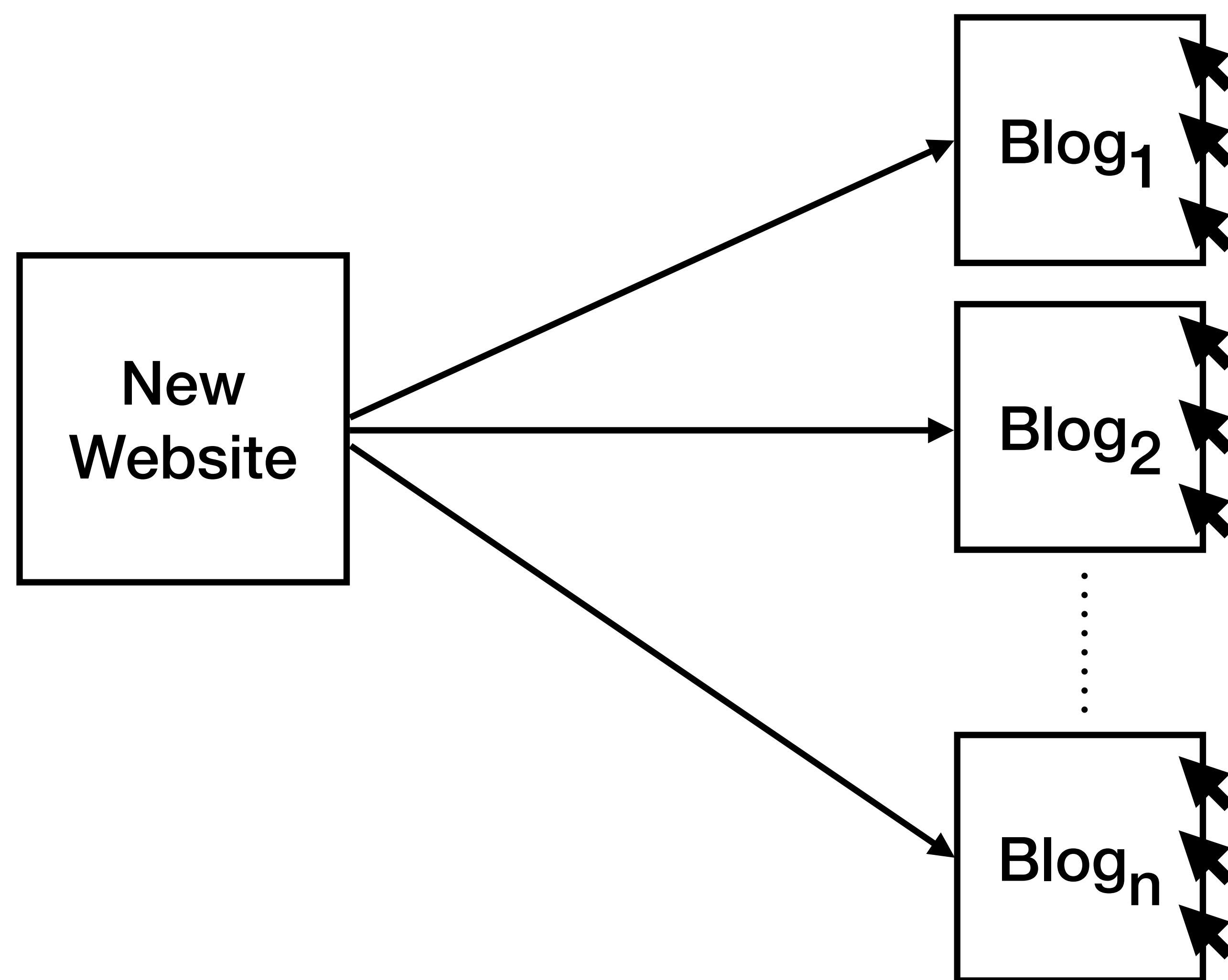
Aim of search engine manipulation

- The access of web pages is primarily governed by the web pages' position
 - 91.5% of clicks are on the first page of the results
 - 32.5% are on the first result
 - 17.6% are on the second result
- The goal of the search engine manipulation is to put the search results as high as possible

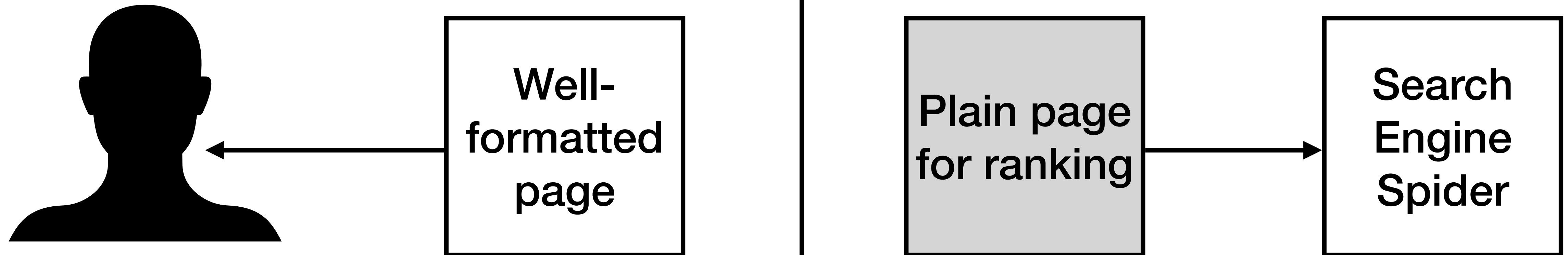
Manipulation techniques

- Unethical techniques to improve the rank of a page: black-hat techniques
 - Indexing
 - On-page techniques
 - Off-page techniques
 - Bowling

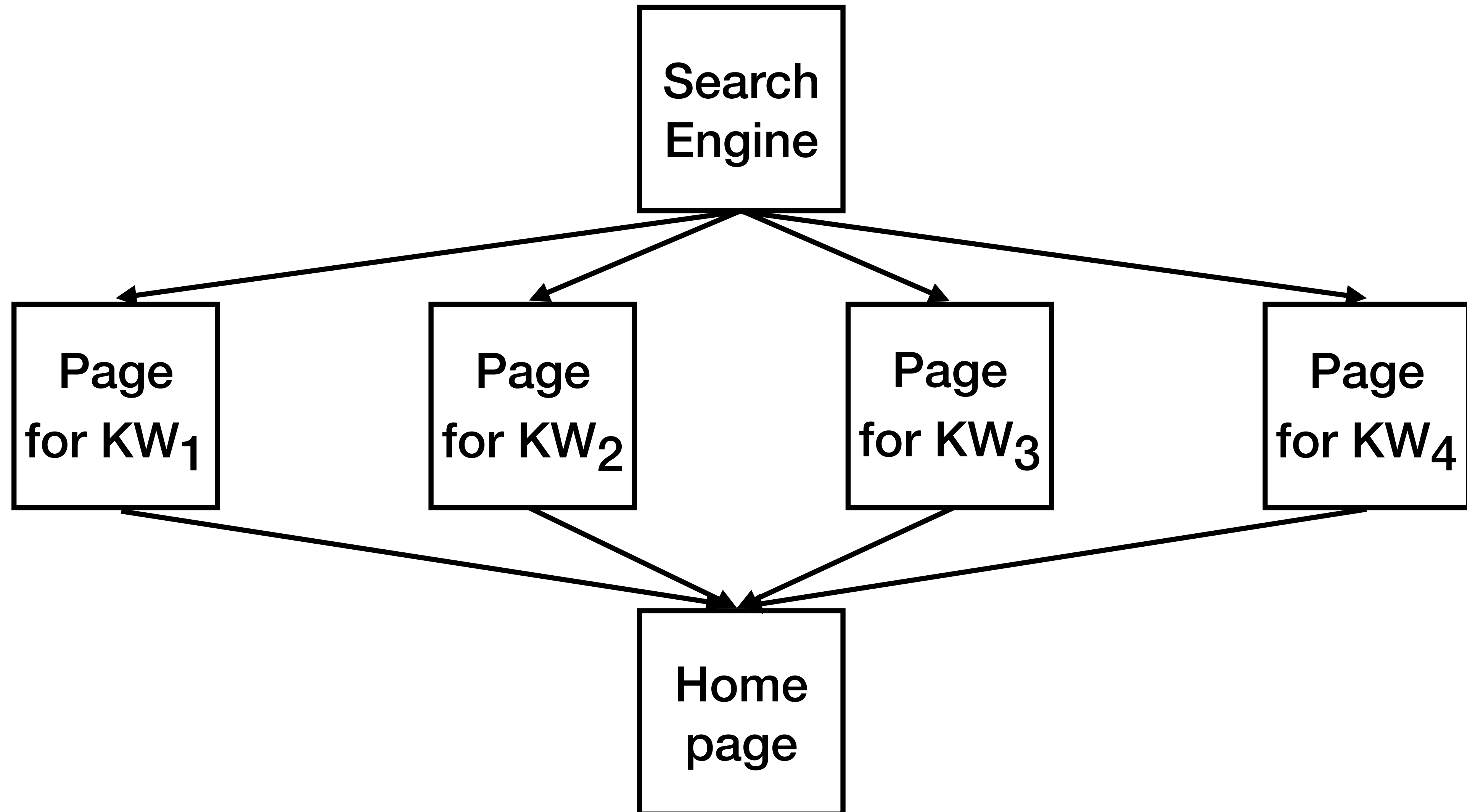
Indexing: Blog-Ping



On-Page: Cloaking



On-Page: Doorway Pages



On-Page: Invisible Elements

Webpage

Element - 1

Element - 2

Element - 3

Element - 4

Element - 5

On-Page: Invisible Elements

Webpage

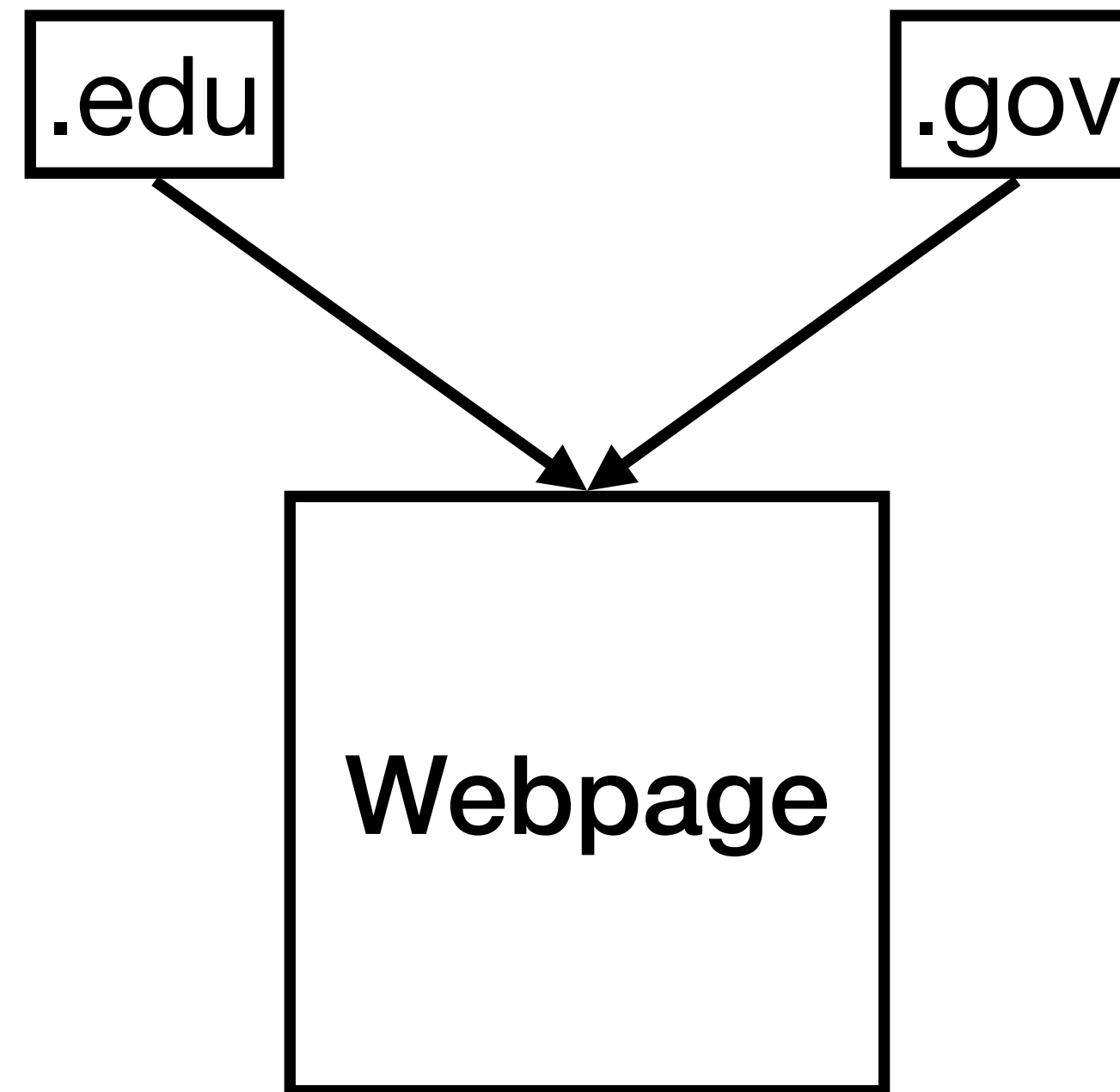
Element - 1

Element - 2

Element - 4

Element - 5

Off-page: Guest book spamming



Off-page: Link Farms

