# SE@-Effekt

THE EFFECT OF SEARCH ENGINE OPTIMIZATION ON SEARCH RESULTS: THE SEO EFFECT PROJECT

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SEARCH STUDIES

#### **OVERVIEW**

- 1. The relevance of Search Engine Optimization (SEO)
- 2. The SEO Effect project
- 3. Key results

Public awareness and attitudes towards SEO Measurement of SEO

- 4. Discussion and conclusion
- 5. References



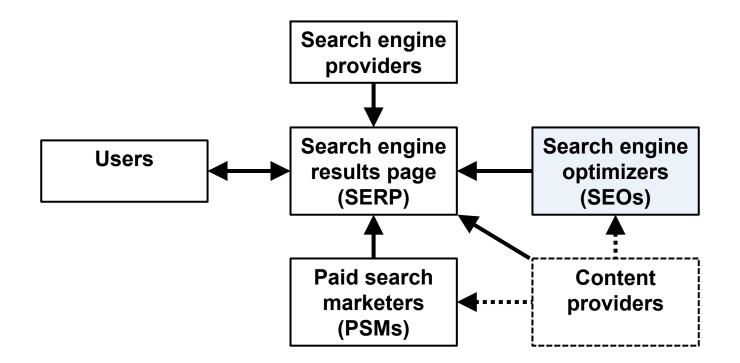


# 1 THE RELEVANCE OF SEARCH ENGINE OPTIMIZATION (SEO)





#### 1. THE RELEVANCE OF SEARCH ENGINE OPTIMIZATION (SEO)







# **2 THE SEO EFFECT PROJECT**



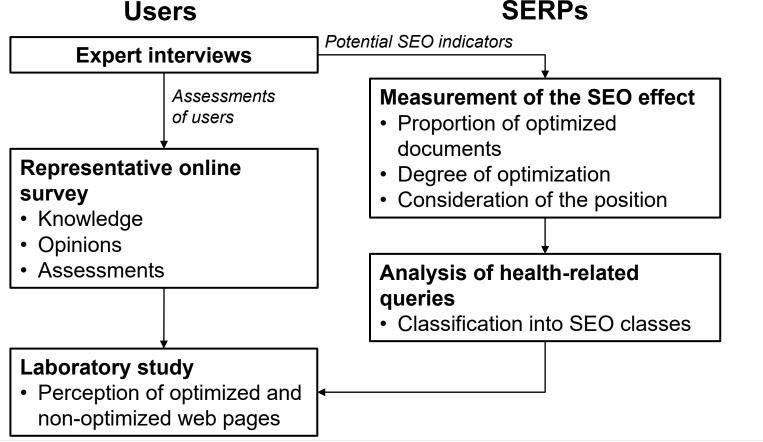


#### 2. THE SEO EFFECT PROJECT

#### **Project goals**

(1) Measure the impact of SEO on result rankings ("SERPs")

(2) Capture user knowledge and perspectives regarding SEO ("Users")



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# **3 KEY RESULTS:** PUBLIC AWARENESS AND ATTITUDES TOWARDS SEO





#### 3. KEY RESULTS: PUBLIC AWARENESS AND ATTITUDES TOWARDS SEO

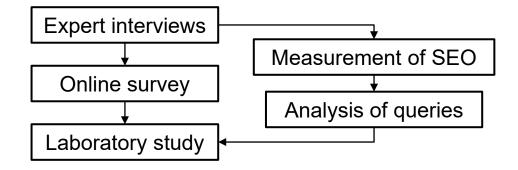
#### **Ubiquity of SEO**

- For content providers and online journalists, SEO is considered necessary to ensure visibility, but unknown to users.
   Low user knowledge of SEO
- Most Internet users (57%) don't know that ranking improvement is possible, apart from buying ads.
- Only 8% of users are familiar with the term "SEO" (and its variants), 13% can correctly name one or more SEO techniques.
- The lower the knowledge of SEO, the higher the level of trust in Google.

#### Non-optimized pages are often of high quality

- Non-optimized web pages were attributed a higher level of expertise than optimized web pages.
- The subjects justified their judgments with a more competent and reputable appearance of non-optimized pages.
- Optimized pages are much more likely to be commercially motivated than non-optimized pages.
- Risk of non-commercial pages (e.g., government websites) being outranked by commercial pages (e.g., pharmaceutical companies).

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Schultheiß, S., & Lewandowski, D. (2020). "Outside the industry, nobody knows what we do" SEO as seen by search engine optimizers and content providers. *Journal of Documentation*, 77(2), 542–557. https://doi.org/10.1108/JD-07-2020-0127

Schultheiß, S., & Lewandowski, D. (2021). Misplaced trust? The relationship between trust, ability to identify commercially influenced results and search engine preference. *Journal of Information Science*, 016555152110141. https://doi.org/10.1177/01655515211014157

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## 3 KEY RESULTS: MEASUREMENT OF SEO





### 3. KEY RESULTS: MEASUREMENT OF SEO

#### **SEO classification tool**

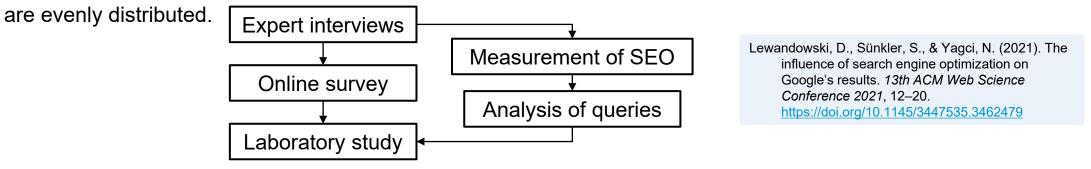
- Development of a multidimensional approach to make SEO measurable.
- Model of n = 48 indicators based on an extensive literature review and expert interviews.
- Rule-based and decision tree classifiers to determine the probability of the usage of SEO measures on a web page: optimized – probably optimized – (probably) not optimized
- Three use cases with a total of n = 256,853 search results.

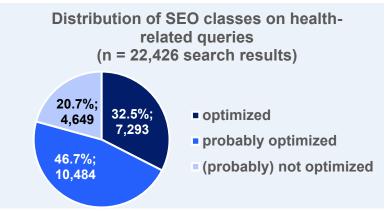
#### Use case: health-related queries

- Evaluation of the probability of SEO on n = 318 health-related queries.
- Automated analysis of n = 22,426 Google results.
- Provision of the data set for the laboratory study.

#### Results

- 79.2% of search results are (probably) optimized.
- In terms of result positions, optimized and non-optimized documents







# **4 DISCUSSION AND CONCLUSION**





## 4. DISCUSSION AND CONCLUSION

- A large degree of pages are optimized. This holds true for all result positions.
- Users are confronted with a high number of optimized documents.
- SEO is unknown to most users.
- SEO is more often performed by commercially motivated providers, but noncommercial providers are attributed the higher expertise.
- Users could miss out on relevant information due to absence of SEO measures.
- Future research:
  - add more search engines, increase datasets in terms of size and diversity, add more factors to our model
  - (2) investigate the SEO influence on users' selection behavior and knowledge acquisition











#### **5. REFERENCES**

Lewandowski, D., Sünkler, S., & Yagci, N. (2021). The influence of search engine optimization on Google's results. *13th ACM Web Science Conference 2021*, 12–20. <u>https://doi.org/10.1145/3447535.3462479</u>

- Schultheiß, S., & Lewandowski, D. (2020). "Outside the industry, nobody knows what we do" SEO as seen by search engine optimizers and content providers. *Journal of Documentation*, 77(2), 542–557. <u>https://doi.org/10.1108/JD-07-2020-0127</u>
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Project page <a href="https://searchstudies.org/research/seo-effekt/">https://searchstudies.org/research/seo-effekt/</a>

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# THANK YOU FOR YOUR ATTENTION!

#### SEO Effect project team



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