Performance Prediction

- Rather than changing the approach used to search, can we suggest better queries?

  - How can you predict the effectiveness of a query?
    query performance prediction (**QPP**) [29]

- QPPs are a way of estimating the effectiveness of a query without relevance assessments

  - **pre-retrieval QPPs** use query and collection statistics [26]

  - **post-retrieval QPPs** use statistics about documents that have been retrieved [92, 40, 74, 20]

It is unknown how to apply QPPs to Boolean queries

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Query Transformations

- What's been done?
  - Query generation [41] and query expansion/reduction [46, 76] have had success in **clinical IR fields** with **non-Boolean queries**
    - Can be used to generate variations in order to **suggest** more effective queries
    - Aspects of a query are modified (e.g. terms are added or removed) in order to create a **more effective query**
- What's the gap?

unclear how to apply these techniques to Boolean queries

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