

Beyond Boolean

- Boudin et al. [11], Schardt et al. [69], and Hoogendam et al. [31] incorporate clinical labels (PICO) into query formulation, with mixed results
 - The test collection they use is **limited to a small number of topics**
- Karimi et al. [37] finds that non-Boolean queries can outperform Boolean queries
 - However, **Boolean queries are engrained in the systematic review process**

Performance Prediction

- Rather than changing the types of queries used to search, what about improving existing queries?
 - 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 [91, 40, 72, 20]
- **It is unknown how to apply QPPs to Boolean queries**