Screening

- Once a query has been formulated and approved, the **screening phase** may begin

- Researchers use the query they formulated to retrieve citations, then screen these citations for trials and studies that are **potentially relevant**

- It is in the **eligibility** phase that the **full text** of studies are assessed to determine if they should be included or excluded from the systematic review

Reducing the Screening Workload

- <u>What's been done?</u>

  - Cohen et al. [18] & Khabsa et al. [39] both investigated **classifiers** to assist reviewers appraise the **full text of studies** for inclusion and exclusion

  - Miwa et al. [52] have investigated **active learning** for certainty-based screening

- <u>What's the gap?</u>

Small test collections are used

These approaches require human-in-the-loop for **relevance feedback**

There is a **variability in the effectiveness** of the approaches

[18] Aaron M Cohen. Performance of support-vector-machine-based classification on 15 systematic review topics evaluated with the wss@ 95 measure. Journal of the American Medical Informatics Association, 18(1):104–104, 2011.
[39] Madian Khabsa, Ahmed Elmagarmid, Ihab Ilyas, Hossam Hammady, and Mourad Ouzzani. Learning to identify relevant studies for systematic reviews using random forest and external information. Machine Learning, 102(3):465–482, 2016.
[52] Makoto Miwa, James Thomas, Alison O'Mara-Eves, and Sophia Ananiadou. Re- ducing systematic review workload through certainty-based screening. Journal of Biomedical Informatics, 51:242–253, 2014.