

**San Francisco State University  
Department of Computer Science**

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**Title:**       **Development of a Benchmark Tool for  
Evaluation and Comparison of Search Engines**

**Author(s):**   Vikram Bagga

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**Abstract:**

Internet is the primary source of all kinds of information. General purpose search engine such as Google and Yahoo organize information and make it easily and rapidly accessible. More and more users are now online and obtain information through general purpose search engines. The goal of this project is to compare overall quality of general purpose search engines and come up with a conclusion on which search engine performs the best in the current market.

To accomplish the goal, qualitative and quantitative comparisons are used to compare common and important functionalities of search engines. Qualitative comparison includes measuring the functional attribute values for the search engines and comparing them to derive a quantized result. Quantitative comparison measures relevancy of retrieved information and the speed of retrieval. A software tool, Search Engine Performance Analyzer (SEPA), is developed to obtain comparison data.

It is interesting to note that based on our measurement findings, none of the engines is the best in all the areas. All, Google, Yahoo and MSN win in different areas. However, based on the requirements that we set for overall quantized evaluation, Google performs the best with MSN at the second position whereas Yahoo showing the worst overall results out of three.

**Keywords:**   General purpose search engines, qualitative comparison, quantitative comparison.

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