

# Whittle Search: Image Search with Relative Attribute Feedback

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## **Summary**

In this article researchers from University of Texas as well as Toyota Technological Institute Chicago demonstrate the technique named “Whittle Search” for refining image search for people, products, and scenes, where a user describes which properties of sample images should be adjusted in order to more closely match the sought image. For instance, if initially user searches for “black shoes”, and sees the sea of images of black shoes, he/she can manage their search by narrowing it with the next several iterations, in each of which he/she can add more constraints, such as “black shoes that are shinier”, so that the searching algorithm “whittles away” irrelevant items. The results show how this method outperforms traditional binary relevance feedback in terms of search speed and accuracy. The authors tested the method in various ways, however some searching engines were more efficient in some cases: researchers suggest that is due to their strong category-based nature, which makes it more amenable to binary feedback. Nevertheless, in general the advantage of “Whittle Search” is much stronger, as it can be clearly seen on graphs constructed on datasets of the results. Researchers tend to work in this field further to enhance the abilities of the searching system.

## **Feedback**

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In my opinion, this method cannot be named as an absolutely novel one, however the results are quite interesting. It indeed is more efficient in many ways and could be very useful and comfortable for clients. Somehow it reminded me, the search on a website of NU library, where the user has a choice of several ways to search the needed item. The basic one is a binary and the complicated one seems to be more close to the iterative. Nonetheless, I see the “Whittle Search” as a perfect search technique in online shops, especially of clothes and shoes. Probably by considering the clients’ feedback as well as managing the constraints by their keywords, searching systems could enhance their abilities to the whole new level.