Dynamic Facet Ordering for Faceted Product Search Engines
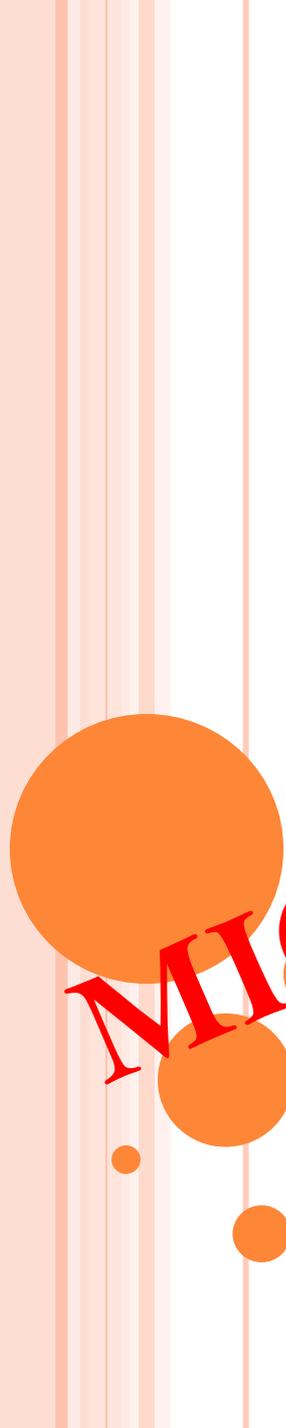
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ABSTRACT

- Faceted browsing is widely used in Web shops and product comparison sites. In these cases, a fixed ordered list of facets is often employed.

- This approach suffers from two main issues. First, one needs to invest a significant amount of time to devise an effective list.

- Second, with a fixed list of facets it can happen that a facet becomes useless if all products that match the query are associated to that particular facet..

- In this work, we present a framework for dynamic facet ordering in e-commerce. Based on measures for specificity and dispersion of facet values, the fully automated algorithm ranks those properties and facets on top that lead to a quick drill-down for any possible target product.

- In contrast to existing solutions, the framework addresses e-commerce specific aspects, such as the possibility of multiple clicks, the grouping of facets by their corresponding properties, and the abundance of numeric facets.

Existing System

- Faceted search is primarily helpful in situations where the exact required result is not known in advance.

- As opposed to product search using keyword-based queries, facets enable the user to progressively narrow down the search results in a number of steps by choosing from a list of query refinements.

- However, one of the difficulties with faceted search, especially in e-commerce, is that a large number of facets are available. Displaying all facets may be a solution when a small number of facets is involved, but it can overwhelm the user for larger sets of facets

DISADVANTAGES

- First, one needs to invest a significant amount of time to devise an effective list.

- Second, with a fixed list of facets it can happen that a facet becomes useless if all products that match the query are associated to that particular facet

PROPOSED SYSTEM

- we propose an approach for dynamic facet ordering in the e-commerce domain. The focus of our approach is to handle domains with sufficient amount of complexity in terms of product attributes and values.

- Consumer electronics (in this work 'mobile phones') is one good example of such a domain. As part of our solution, we devise an algorithm that ranks properties by their importance and also sorts the values within each property.

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- For property ordering, we identify specific properties whose facets match many products (i.e., with a high impurity).

- The proposed approach is based on a facet impurity measure, regarding qualitative facets in a similar way as classes, and on a measure of dispersion for numeric facets. The property values are ordered descending on the number of corresponding products.

ADVANTAGES

- User finds its desired product with the least amount of effort.

- online retailers pay special attention to the usability and efficiency of their Web shop user interfaces.

HARDWARE REQUIREMENTS

- System   : Pentium IV 2.4 GHz.

- Hard Disk   : 40 GB.

- Floppy Drive   : 1.44 Mb.

- Monitor   : 15 VGA Colour.

- Mouse   : Logitech.

- Ram   : 512 Mb.

SOFTWARE REQUIREMENTS

- Operating system   : Windows XP/7.

- Coding Language   : ASP.net, C#.net /java

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CONCLUSION

- In this work, we proposed an approach that automati-cally orders facets such that the user finds its desired product with the least amount of effort.

- The main idea of our solution is to sort properties based on their facets and then, additionally, also sort the facets themselves.

- We use different types of metrics to score qualitative and numerical properties.

- For property ordering we want to rank properties descending on their impurity, promoting more selective facets that will lead to a quick drill-down of the results.

- Furthermore, we employ a weighting scheme based on the number of matching products to adequately handle missing values and take into account the property product coverage.

REFERENCE

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