WWW 2010
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Raleigh, NC
USA

Reviews For Paper

Track	Research
Paper ID	695
Title	Facetedpedia: Dynamic Generation of Query-Dependent Faceted Interfaces for Wikipedia

Masked Reviewer ID:	Assigned_Reviewer_1

Review:

Question	
Overall Recommendation	Accept
Novelty of the problem proposed (Give high novelty ratings to papers on new topics or proposing stimulating new ideas)	High
Quality of solution. (Is the approach novel and original? Creative solution or synthesis of known ideas? How effectively is the problem solved for practical applications? If the paper is theoretical, is	High

the solution elegant?)	
Potential impact if problem is solved well. (Will the paper see a lot of following and citations? Will it enable solution of other pending problems?)	High
How thorough are the experiments? (Are the baselines fair and comprehensive? are the important features properly evaluated? Are the data sets sufficiently comprehensive? Are the experiments reproducible?)	Thorough
Organization and presentation quality. (Is there clarity of thought in developing the proposed solution? Is related work properly cited?)	High

Relevance to WWW and interestingness. (Will this paper attract the attention of a large number of attendees?)	High (Interesting to more than 50 WWW attendees.)
Brief summary of the paper and the rationale for your recommendation	This paper describes the Facetedpedia system, which can dynamically generates faceted interfaces for search results on Wikipedia. The problem is interesting and the techniques are novel and deep. Thorough experimental study and user study are performed to show effectiveness of the system. The paper is very well presented.
Major strong points of the paper (please explain clearly the value and nature of the contributions)	1. The idea of Facetedpedia is interesting and useful. Dynamically generating query-dependent facets is not well studied before. 2. The solution, including evaluation of facet(s) and dynamic generation of the facets, is deep and novel. 3. Experiments are thorough to validate various aspects of the system, and user study is performed. 4. The paper is very well presented.
Major weak points of the paper (please indicate clearly the perceived limitations of the paper, especially technical errors, missing related work and recycled results)	1. One major problem I have is that in your definition of Navigational Path, you need a p'. That is certainly complementary when p itself is not in a category. But what if p is in category c1 but does not link to any article in category c1? We should be able to navigate to p through c1, why not?
Detailed comments (Include suggestions for improvements.)	- Abstract In 6: "facets generation" -> "facet generation" - Eg2: do you mean c5->c12 or c11-c14? c5 has other sub-categories. - Sec 4.2: I can understand the definition of avg similarity, but can't see how in particular you apply that in ranking.

Masked Reviewer ID:	Assigned_Reviewer_3
Review:	

Question	
Overall Recommendation	Weak accept
Novelty of the problem proposed (Give high novelty ratings to papers on new topics or proposing stimulating new ideas)	Medium
Quality of solution. (Is the approach novel and original? Creative solution or synthesis of known ideas? How effectively is the problem solved for practical applications? If the paper is theoretical, is the solution elegant?)	Medium
Potential impact if problem is solved well. (Will the paper see a lot of following and citations? Will it enable solution of other pending problems?)	Medium

How thorough are the experiments? (Are the baselines fair and comprehensive? are the important features properly evaluated? Are the data sets sufficiently comprehensive? Are the experiments reproducible?)	Could be improved
Organization and presentation quality. (Is there clarity of thought in developing the proposed solution? Is related work properly cited?)	High
Relevance to WWW and interestingness. (Will this paper attract the attention of a large number of attendees?)	Medium (Interesting to 10-50 WWW attendees.)
Brief summary of the paper and the rationale for your recommendation	This paper presents a way of automatically parsing search results for Wikipedia in order to generate facets which allow for subsequent filtering and browsing. I thought the introduction and related literature section of this paper were particularly well written.

Major strong points of the paper (please explain clearly the value and nature of the contributions)	I particularly liked the review of the literature section, couching this work well in the context of other work. They present a taxonomy based both on types of dimensions (text and structured, versus semantics of hierarchies as well as automatic/ predefined facets versus automatic/predefined hierarchies.
Major weak points of the paper (please indicate clearly the perceived limitations of the paper, especially technical errors, missing related work and recycled results)	The algorithmic discussion was quite dense and I would have prefered higher level descriptions as opposed to the pseudo-code. It was nice that a user study was performed, but comparison to Castanet seemed somewhat inappropriate since that was designed for very different usage. I would have liked to see whether the facets compare well with techniques like TFIDF keywords or even hand generated facets. I'm not convinced that Challenge 2 ('goodness' of facets) was achieved in a way that matches user expectations since there was nothing clearly done that validates that.
Detailed comments (Include suggestions for improvements.)	Perhaps a higher level description of the algorithms.

Masked Reviewer ID: Assigned_Reviewer_5

Review:

Question	
Overall Recommendation	Weak accept
Novelty of the problem proposed (Give high novelty ratings to papers on new topics or proposing stimulating new ideas)	High

Quality of solution. (Is the approach novel and original? Creative solution or synthesis of known ideas? How effectively is the problem solved for practical applications? If the paper is theoretical, is the solution elegant?)	Medium
Potential impact if problem is solved well. (Will the paper see a lot of following and citations? Will it enable solution of other pending problems?)	Medium
How thorough are the experiments? (Are the baselines fair and comprehensive? are the important features properly evaluated? Are the data sets sufficiently comprehensive? Are the experiments reproducible?)	Could be improved

Organization and presentation quality. (Is there clarity of thought in developing the proposed solution? Is related work properly cited?)	Medium
Relevance to WWW and interestingness. (Will this paper attract the attention of a large number of attendees?)	Medium (Interesting to 10-50 WWW attendees.)
Brief summary of the paper and the rationale for your recommendation	The paper addresses an interesting problem: given a set of query results on Wikipedia, what are the best facets to offer a user for faceted navigation and exploration, where facets are chosen from the huge set of Wikidia categories in combination with articles that are linked to from the query results. The presented approach is elegant and carried through very competently, but it is unclear if the navigational-cost model is indeed appropriate from a user-centric viewpoint.
Major strong points of the paper (please explain clearly the value and nature of the contributions)	elegant model good algorithmics

Major weak points of the paper (please indicate clearly the perceived limitations of the paper, especially technical errors, missing related work and recycled results)	unclear if the navigational-cost model is appropriate experiments could have more details
Detailed	The paper addresses an interesting problem: given a set of query results on Wikipedia, what are the best facets to offer a user for faceted navigation and exploration, where facets are chosen from the huge set of Wikidia categories in combination with articles that are linked to from the query results. This requires ranking facets from a very large space of candidates. Although the problem is cast into a Wikipdia-specific setting, it is of general interest for all corpora where user communities create a huge pool of potential facet candidates in the form of ad-hoc categories, tags and tag hierarchies, etc. The paper's solution is based on a navigational-cost model. The model is elegant, and the solutions towards low-cost facets are good science. However, I don't find the navigational-cost model itself truly convincing. The paper lacks a deeper discussion of why these cost notions are indeed meaningful from a cognitive and user-centric viewpoint. It seems to me that paths with low fanout are favored (have low cost), but perhaps this leads to a choice of overly special if not exotic facets. For example, if were a path along categories of the kind "left-handed democratic politicians in the bible belt" with low fanout, wouldn't this be ranked higher than a more mainstream and usually more helpful path along categories such as "US politicians of the 21st century"? This is an issue about the suitable facets for a single target article. For aggregating over multiple target articles, it is not clear how the "coverage" and "diversity" of facets are considered. The presented method aims to favor facets that cover many

comments (Include suggestions for improvements.)	target articles. But shouldn't that entail that the penalty for a non-reachable target is higher than the most expensive path that leads to the target? However, neither Section 4 nor Section 6 state it that way? Also, is coverage truly capture by the summation in Definition 7? Is it an aggregatable measure at all? For example, suppose that out of 10 targets, one facet A covers 7 targets, facet B covers 6 but these are a subset of those of A, facet C covers 5, and facet D covers 5 that are disjoint from those of C. Now suppose that we want to determine the best two facets. The lowest-navigational-cost approach with the aggregation of Def. 7 would seem to favor A and B, thus covering 7 targets in total. However, one intuitively prefer facets C and D because together they cover all 10. Is this the right intuition? Do the definitions capture this adequately? The paper needs more discussion along these lines. Finally, isn't diversity of facets also an issue to be considered? Suppose the chosen facets only capture semantically related paths such as facets anchored at category "US politicians of the 21st century" and "US democratic politicians". But if the query result set were say a mix of politicians and entrepreneurs (e.g. if the query were about influential people in the US), then facets around categories "politicans" and "entrepreneurs" would seem a better choice for diverse-views exploration. Again, it would have been nice if the paper had discussed more considerations along these lines. Unfortunately, the paper's experimental section does not discuss any concrete outputs of the algorithm. Here, I would find anecdotic results (in addition to the systematically aggregated measures) really insightful.