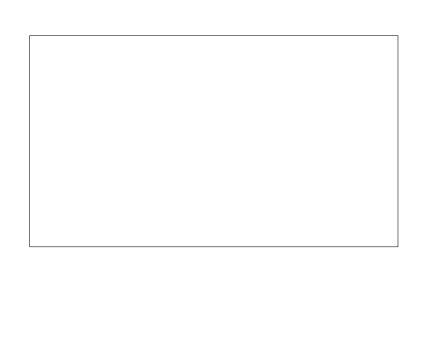
mendations become feasible in communities suffering from information sparsity, too. Hereby, besides taxonomy-driven profile generation, topic diversification constitutes the second core contribution of our work.

We mined data from one such community, All Consuming (http://www.allconsuming.net), and conducted various experiments demonstrating the superior performance over benchmark approaches.

## 2. RELATED WORK

for every topic  $d_{k_e}$   $f(b_k)$  of products  $b_k$ 



Eventually, product relevance weights  $w_i(b_k)$  computed for every  $b_k$ 

Besides our own, taxonomy-based approach, we also implemented three other recommender algorithms for comparison.

## 4.1 Data Acquisition

```
14 1.37057472 0.17335083 2.4190387 180240506

15 1.38215940 0.1836835 2.44001489 185442854

16 1.40580331 0.19158687 2.44037139 1.70458443

17 1.3863973 0.180377 2.5408038 1.72781798

18 1.3813139 0.1827222 2.5909104 1.77566723

19 1.37058902 0.1900.331 2.577060444 1.7171881

20 1.3455085 0.1827844 2.61306722 1.7000474

21 1.41032046 0.1840914 2.8801222 1.84471085

22 1.39184461 0.19165824 2.69981036 1.91931885

23 1.40053345 0.0192565 2.7025737 1.89828101

24 1.39420985 0.16253384 2.73844159 1.9214737
```

Figure 3: Weighted recall, using half-life = 10 and = 5