

Foundations of Information Retrieval

Exercise 6

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Relevance feedback & query expansion

1. A user Jon looks for information about populations of banana slugs and issues a query „banana slug“ to the search engine *RFSearch*, which supports relevance feedback. For this query, *RFSearch* delivers the following top-3 results:

D_1 ="banana slug Ariolimax columbianus"
 D_2 ="Santa Cruz mountains banana slug"
 D_3 ="Santa Cruz Campus Mascot"

Jon marks the documents D_1 , D_2 as relevant and D_3 as not relevant for his information need. *RFSearch* uses term frequency and the Rocchio RF algorithm, with $\alpha = \beta = \gamma = 1$. Which search query will be executed next based on the Jon's feedback? Specify the weights for each query term. Sort the terms in an alphabetical order.

2. Specify α , β , and γ values that facilitate a query retrieving pages similar to a relevant page within the search result using the Rocchio RF algorithm.