

Graph walks – Page Rank

Task:

Page rank and personalized page rank implementation with teleportation probability 0.15

Input:

Graph node ids in the form of adjacency lists is taken from input file graph.txt.

- First token in the input file is the node id of the source, the remaining tokens are the node ids of the target nodes.
- If there are no target nodes the node has no outgoing edges.

Method name:

Iterative method considering random jump factor which is set to 0.15.

Results obtained:

Number of components: 1
Number of edges: 195
Number of nodes: 93
Random jump factor: 0.15

Actual results:

0.04821884416235794	8709207
0.03471312258467498	11287582
0.03438927990335218	9650960
0.033945207898198146	12610128
0.032378178767292154	8553535
0.030345368243697247	12518224
0.02840315160119832	11044077
0.026297115208992885	11160736
0.022967154724891053	12560332
0.01994922776978065	12857908

Compared to actual results working on ranking order.

Personalized pageRank:

Seed set:

8551571

9372953
9557678

Github link: <https://github.com/AjeshV/CS980-Data-Science-w-Knowledge-Graphs>

File name: PageRankGw.java