Page Rank

PageRank is algorithm for link analysis and ranking web pages for internet searches. In the case of its application to the web, it assigns a numerical weight to each component of a set of documents that are hyperlinked. However, Page Rank does not have to be applied to only the web.

In the graph that is created by the web, each node is a web page and each edge is a hyperlink. With this image it is easy to picture how a large webpage like facebook might have many edges (hyperlinks) connected to its node. The page rank value uses this information to calculate a page’s importance, with each hyperlink counting as a “vote” for the page.

The rank value for a site is not just calculated by the pages number of links. It also considers the page rank of the site that is linking to it. For example, if cnn.com linked to cofc.edu, then the link from cnn would give the cofc site a boost in rank.

Page rank applies to distributed networking because all of the documents that are being ranked live on the distributed network of the world wide web. Each document doen not have to be hosted all on the same system. Page rank can also now be computed in a distributed manner as well <https://www.sciencedirect.com/science/article/pii/S0304397514002709>