Roberdan: How Google PageRank(tm) works

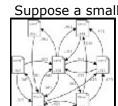
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<u>Roberdan</u>

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How Google PageRank(tm) works

Simplified PageRank algorithm (read more on Wikipedia http://en.wikipedia.org/wiki/Pagerank)



Suppose a small universe of four web pages: **A**, **B**,**C** and **D**. The initial approximation of PageRank would be evenly divided between these four documents. Hence, each document would begin with an estimated PageRank of 0.25.

If pages **B**, **C**, and **D** each only link to **A**, they would each confer 0.25 PageRank to **A**. All PageRank **PR()** in this simplistic system would thus gather to **A** because all links would be pointing to **A**.

$$PR(A) = PR(B) + PR(C) + PR(D).$$

But then suppose page **B** also has a link to page **C**, and page **D** has links to all three pages. The value of the link-votes is divided among all the outbound links on a page. Thus, page **B** gives a vote worth 0.125 to page **A** and a vote worth 0.125 to page **C**. Only one third of **D**'s PageRank is counted for A's PageRank (approximately 0.081).

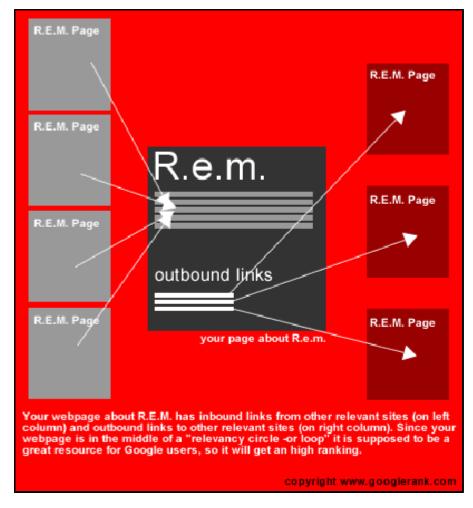
$$PR(A) = \frac{PR(B)}{2} + \frac{PR(C)}{1} + \frac{PR(D)}{3}.$$

In other words, the PageRank conferred by an outbound link **L()** is equal to the document's own PageRank score divided by the normalized number of outbound links (it is assumed that links to specific URLs only count once per document).

$$PR(A) = \frac{PR(B)}{L(B)} + \frac{PR(C)}{L(C)} + \frac{PR(D)}{L(D)}.$$

Other interesting and deeper things are on http://www.googlerank.com

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and this phrase is very interesting: ".. As a result of this, you MUST have at least one site or page linking to your website to remain into the index"

References: http://en.wikipedia.org/wiki/Pagerank; http://en.wikipedia.org/wiki/Pagerank; http://www.googlerank.com/ranking/Ebook/pagerankdoc.html

Pls start the conversation and, if you can, help me to better understand how this algoritm works. I'm also looking for info on how it can works on documents and email. Comments are opens and my email also. Thx.

Posted: Saturday, January 06, 2007 1:53 PM by Roberdan

Filed under: Conversations, Social Enterprise Architecture, Future Visions, Marketing, ICT, Enterprise Search

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