THE PAGERANK LINEAR SYSTEM

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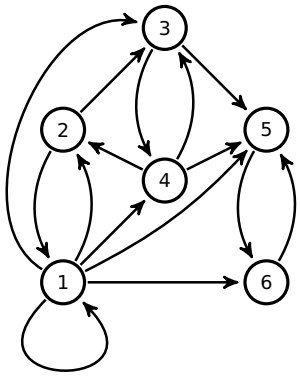
A SAMPLE GRAPH



THE ADJACENCY MATRIX

$$\begin{array}{c} \\ 1 \\ 2 \\ 3 \\ 4 \\ 5 \\ 6 \end{array} \begin{array}{c} \begin{array}{cccccc} 1 & 2 & 3 & 4 & 5 & 6 \end{array} \\ \begin{bmatrix} & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \end{bmatrix} \end{array}$$

THE PAGERANK MODEL AN IMPLICIT EQUATION

Let $x_1, x_2, x_3, x_4, x_5, x_6$ be the probability of finding the surfer at page $1, 2, 3, 4, 5, 6$ after a really really long time.

We "implicitly" assume that these probabilities exist.

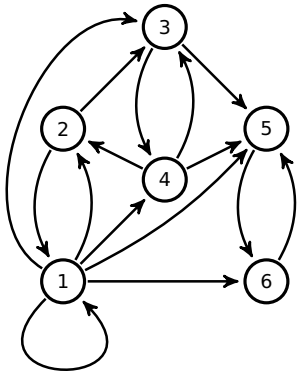
probability of finding the surfer at 1

= sum over ways of getting to 1 · probability of each way.

$x_1 =$

$x_2 =$

The graph again



$x_1 =$

$x_2 =$

$x_3 =$

$x_4 =$

$x_5 =$

$x_6 =$