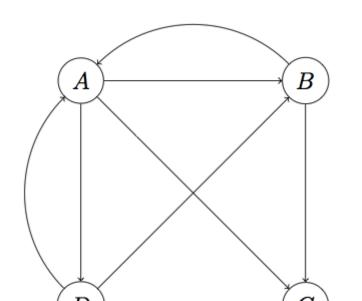
# ${\sf PageRank}$

- •

PageRank A BCD B AC C D D AB



V V

$$S(V_i) = (1 - d) + d * \sum_{j \in In(V_i)} \frac{1}{|Out(V_j)|} S(V_j)$$

Figure 2:

A

B,C,D

B,D 0.25

В

 $\mathsf{A},\mathsf{C}$ 

A,D 0.25

\_

```
d = 0.85
S(A) = 0.15 + 0.85 * (S(B)/2 + S(D)/2)
= 0.15 + 0.85 * (0.25/2 + 0.25/2)
S(B) = 0.15 + 0.85 * (S(A)/3 + S(D)/2)
= 0.15 + 0.85 * (0.25/3 + 0.25/2)
S(C) = 0.15 + 0.85 * (S(A)/3 + S(B)/2)
= 0.15 + 0.85 * (0.25/3 + 0.25/2)
```

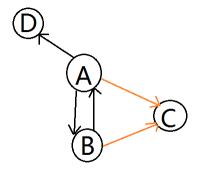


Figure 3:

## TextRank PageRank

#### TextRank PageRank

- 1.
- 2.
- 3.
- 4.

- pagerank
  - k

- 1. Tokenize
- 2.
- 3. pagerank

TextRank -

TF-IDF

TextRank -

$$Similarity(S_i, S_j) = \frac{|\{w_k | w_k \in S_i \& w_k \in S_j\}|}{\log(|S_i|) + \log(|S_j|)}$$

Figure 4:

PageRank

TextRank

$$WS(V_i) = (1 - d) + d * \sum_{V_j \in In(V_i)} \frac{w_{ji}}{\sum_{V_k \in Out(V_j)} w_{jk}} WS(V_j)$$

Figure 5:

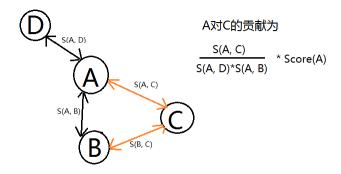


Figure 6: