

Multimedia Information Extraction and Retrieval

Summer Term 2012

Exercise Sheet 8

Ralf Möller, Karsten Martiny

Exercise Session:
Thursday, June 28, 2012, 8.00-8.45, SBS95-D1025

1. Explain what facts about a Knowledge Management System can be analyzed with social network analysis.
2. Consider the following Network $G = (V, E)$ with nodes $V = \{A, B, \dots, H\}$ and (undirected) edges $E = \{AB, AC, AH, BD, BH, CD, CG, CH, DG, DH, EF, EG, FG\}$.
 - (a) For all nodes in the network, determine the
 - Degree Centrality
 - Betweenness Centrality
 - Closeness Centrality
 - (b) For all pairs of nodes, determine the
 - Minimal Distance
 - Number of shortest connections
 - (c) Discuss these results
3. Explain the general ideas of information extraction from multimedia documents.
4. A multimedia information extraction tool is used to identify certain groups of people from video documents. The results are given in the following confusion matrix. Explain what information is given in this matrix and give an interpretation for this data:

	student	professor	research assistant	administration
student	12	2	7	3
professor	1	9	4	6
research assistant	8	3	9	2
administration	1	4	2	9