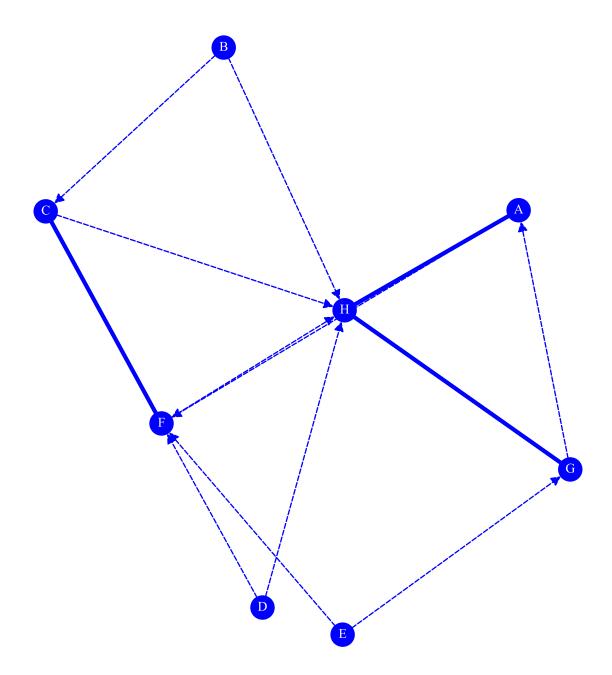


GROUP 3 - DEMO SNA NETWORK GRAPH

A. Who would you like in your ideal work group?

NN 8, NE 16, ND 29%, NC 52%, NT 50%, NR 38%



NN Nodes NE Edges ND Density NC Centralization NT Transitivity NR Reciprocity

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GROUP 3 - DEMO SNA RAW SCORES

A. Who would you like in your ideal work group?

ID	CHOICES	IC	PR	ВТ	CL	HU	ND
A	F, H	0.29	0.22	0.10	0.58	0.17	
В	C, H	0.00	0.02	0.00	0.00	0.13	←
C	F, H	0.29	0.10	0.02	0.50	0.17	
D	F, H	0.00	0.02	0.00	0.00	0.17	←
E	F, G	0.00	0.02	0.00	0.00	0.08	←
F	C, H	0.57	0.17	0.13	0.70	0.13	
G	A, H	0.29	0.16	0.04	0.58	0.12	
Н	A, G	0.86	0.31	0.21	0.88	0.03	

 $\textbf{IC} \text{ In-Degree PR PageRank BT Betweenness CL Closenness HU Hub ND No In-Degree } (\leftarrow) \text{ No Out-Degree } (\rightarrow) \text{ No In or Out-Degree } (\rightleftarrows)$



GROUP 3 - DEMO SNA RANK SCORES

A. Who would you like in your ideal work group?

ID	CHOICES	IC	PR	ВТ	CL	HU	ND
A	F, H	3	2	3	3	1	
В	С, Н	4	6	6	5	2	←
C	F, H	3	5	5	4	1	
D	F, H	4	6	6	5	1	←
E	F, G	4	6	6	5	4	←
F	С, Н	2	3	2	2	2	
G	A, H	3	4	4	3	3	
Н	A, G	1	1	1	1	5	

IC In-Degree PR PageRank BT Betweenness CL Closenness HU Hub ND No In-Degree (\leftarrow) No Out-Degree (\rightarrow) No In or Out-Degree (\rightleftarrows) Very low Low High Wery high



GROUP 3 - DEMO

SNA NODES ORDERED BY RANKS

A. Who would you like in your ideal work group?

RANK	IC	RANK	PR	RANK	ВТ	RANK	CL	RANK	HU
1	Н	1	Н	1	Н	1	Н	1	A
2	F	2	A	2	F	2	F	1	C
3	A	3	F	3	A	3	A	1	D
3	C	4	G	4	G	3	G	2	В
3	G	5	C	5	С	4	C	2	F
4	В	6	В	6	В	5	В	3	G
4	D	6	D	6	D	5	D	4	E
4	Е	6	Е	6	Е	5	E	5	Н

IC In-Degree PR PageRank BT Betweenness CL Closenness HU Hub



GROUP 3 - DEMO

SNA EDGES GROUPED BY TYPE

A. Who would you like in your ideal work group?

Non reciprocal edges

 $X \to Y$ in network $A \cdot not Y \to X$ in network A

Reciprocal edges

 $X \to Y$ in network $A \cdot Y \to X$ in network A

 $(A \cdot H) (C \cdot F) (G \cdot H)$

Half symmetrical edges

 $X \to Y$ in network $A \cdot X \to Y$ in network B

No edge of this type

Reversed half symmetrical edges

 $X \rightarrow Y$ in network $A \cdot Y \rightarrow X$ in network B

 $(B \cdot H) (D \cdot F) (D \cdot H) (G \cdot A)$

Full symmetrical edges

 $X \to Y, \, Y \to X$ in network $A \cdot X \to Y, \, Y \to X$ in network B

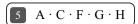
No edge of this type



GROUP 3 - DEMO SNA SUBGRAPHS

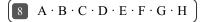
A. Who would you like in your ideal work group?

Strongly Connected ComponentsMaximal subgraphs where all vertices are mutually reachable.



Weakly Connected Components

Maximal subgraphs where any vertices are connected by undirected paths.



Cliques

Subgraphs that become fully connected when directional edges are ignored.

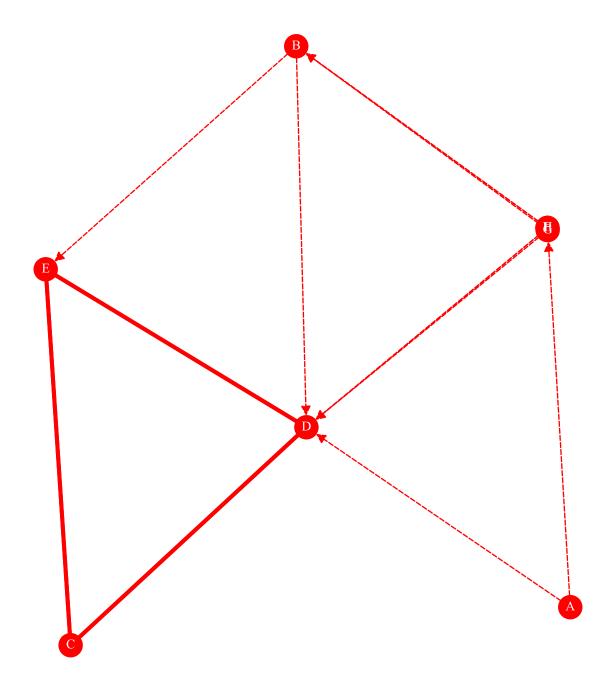




GROUP 3 - DEMO SNA NETWORK GRAPH

B. Who would you not want in your ideal work group?

NN 8, NE 16, ND 29%, NC 71%, NT 75%, NR 38%



NN Nodes NE Edges ND Density NC Centralization NT Transitivity NR Reciprocity

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GROUP 3 - DEMO SNA RAW SCORES

B. Who would you not want in your ideal work group?

ID	CHOICES	IC	PR	ВТ	CL	HU	ND
A	D, G	0.00	0.02	0.00	0.00	0.11	
В	D, E	0.43	0.05	0.04	0.46	0.14	
C	D, E	0.29	0.27	0.00	0.58	0.14	
D	C, E	1.00	0.31	0.17	1.00	0.05	
E	C, D	0.43	0.29	0.01	0.64	0.12	
F	B, D	0.00	0.02	0.00	0.00	0.15	←
G	B, D	0.14	0.03	0.02	0.14	0.15	
Н	B, D	0.00	0.02	0.00	0.00	0.15	←

 $\textbf{IC} \text{ In-Degree PR PageRank BT Betweenness CL Closenness HU Hub ND No In-Degree } (\leftarrow) \text{ No Out-Degree } (\rightarrow) \text{ No In or Out-Degree } (\rightleftarrows)$



GROUP 3 - DEMO SNA RANK SCORES

B. Who would you not want in your ideal work group?

ID	CHOICES	IC	PR	ВТ	CL	HU	ND
A	D, G	5	6	5	6	4	←
В	D, E	2	4	2	4	2	
C	D, E	3	3	5	3	2	
D	C, E	1	1	1	1	5	
E	C, D	2	2	4	2	3	
F	B, D	5	6	5	6	1	←
G	B, D	4	5	3	5	1	
Н	B, D	5	6	5	6	1	←

IC In-Degree PR PageRank BT Betweenness CL Closenness HU Hub ND No In-Degree (\leftarrow) No Out-Degree (\rightarrow) No In or Out-Degree (\rightleftarrows) Very low Low High Wery high



GROUP 3 - DEMO

SNA NODES ORDERED BY RANKS

B. Who would you not want in your ideal work group?

RANK	IC	RANK	PR	RANK	ВТ	RANK	CL	RANK	HU
1	D	1	D	1	D	1	D	1	F
2	В	2	E	2	В	2	E	1	G
2	Е	3	C	3	G	3	C	1	Н
3	C	4	В	4	E	4	В	2	В
4	G	5	G	5	A	5	G	2	С
5	A	6	A	5	C	6	A	3	E
5	F	6	F	5	F	6	F	4	A
5	Н	6	Н	5	Н	6	Н	5	D

IC In-Degree PR PageRank BT Betweenness CL Closenness HU Hub



GROUP 3 - DEMO

SNA EDGES GROUPED BY TYPE

B. Who would you not want in your ideal work group?

Non reciprocal edges

 $X \to Y$ in network $B \cdot not \: Y \to X$ in network B

Reciprocal edges

 $X \rightarrow Y$ in network $B \cdot Y \rightarrow X$ in network B

 $(C \cdot D) (C \cdot E) (D \cdot E)$

Half symmetrical edges

 $X \to Y$ in network $B \cdot X \to Y$ in network A

No edge of this type

Reversed half symmetrical edges

 $X \rightarrow Y$ in network $B \cdot Y \rightarrow X$ in network A

Full symmetrical edges

 $X \to Y, \, Y \to X$ in network $B \, \cdot \, X \to Y, \, Y \to X$ in network A

No edge of this type



GROUP 3 - DEMO SNA SUBGRAPHS

B. Who would you not want in your ideal work group?

Strongly Connected Components

Maximal subgraphs where all vertices are mutually reachable.



Weakly Connected Components

Maximal subgraphs where any vertices are connected by undirected paths.



Cliques

Subgraphs that become fully connected when directional edges are ignored.

