

DEMO 2 | GROUP 1 RELEVANT NODES

1. List of salient nodes with functional characteristics

P	$IC \cdot KZ \cdot PR \cdot CL \cdot BL \cdot AI \cdot II \cdot pop$	75	Y	$IC \cdot KZ \cdot BT \cdot BL \cdot AI \cdot pop$	42
M	$IC \cdot PR \cdot BL \cdot AI \cdot II \cdot pop$	42	E	AI · pop	20
(i)	BT · AI	15	V	CL · pop	15

2. List of salient nodes with non functional characteristics

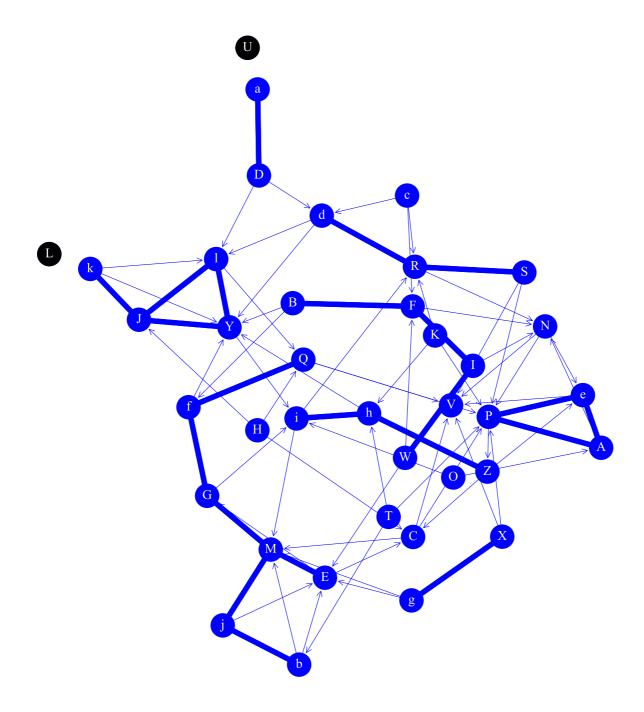
(H)	$IC \cdot KZ \cdot PR \cdot BT \cdot CL \cdot BL \cdot AI \cdot II \cdot rej$	85	0	$IC \cdot KZ \cdot PR \cdot BT \cdot CL \cdot BL \cdot AI \cdot II \cdot rej$	64
C	IM · II	20		II · rej	20



DEMO 2 | GROUP 1 SNA | NETWORK GRAPH

A. Whom would you choose to spend a free outing with?

NN 38, NE 102, NR 22, ND 7%, NC 17%, NT 28%, NR 43%



NN Nodes NE Links NR Reciprocal Links ND Density NC Centralization NT Transitivity NR Reciprocity

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DEMO 2 | GROUP 1 SNA | RAW SCORES

A. Whom would you choose to spend a free outing with?

ID	CHOICES	IC	KZ	PR	ВТ	CL	HU	ND
A	N, P, e	0.08	0.17	0.04	0.01	0.30	0.05	
В	F, Y, f	0.03	0.13	0.01	0.02	0.06	0.02	
C	M, P, V	0.08	0.16	0.03	0.05	0.28	0.08	
D	a, d, l	0.03	0.13	0.01	0.02	0.03	0.01	
Е	C, G, M	0.14	0.19	0.04	0.05	0.28	0.02	
F	B, I, N	0.11	0.17	0.02	0.02	0.11	0.01	
G	M, f, i	0.08	0.17	0.04	0.08	0.29	0.02	
Н	C, J, Q	0.00	0.12	0.01	0.00	0.00	0.01	←
I	F, N, W	0.05	0.14	0.01	0.01	0.07	0.01	
J	Y, k, 1	0.11	0.18	0.04	0.03	0.28	0.01	
K	P, R, h	0.00	0.12	0.01	0.00	0.00	0.06	←
L	-	0.00	0.12	0.01	0.00	0.00	0.00	\rightleftharpoons
M	E, G, j	0.19	0.23	0.06	0.11	0.35	0.01	
N	P, V, e	0.11	0.18	0.03	0.03	0.32	0.08	
O	A, i	0.00	0.12	0.01	0.00	0.00	0.01	←
P	A, Z, e	0.24	0.25	0.07	0.12	0.42	0.02	
Q	P, V, f	0.08	0.16	0.03	0.05	0.27	0.07	
R	N, S, d	0.14	0.19	0.03	0.08	0.29	0.01	
S	P, R, V	0.03	0.13	0.01	0.01	0.22	0.08	
T	P, b, h	0.00	0.12	0.01	0.00	0.00	0.05	←
U	-	0.00	0.12	0.01	0.00	0.00	0.00	\rightleftharpoons
V	-	0.16	0.21	0.05	0.00	0.40	0.00	\rightarrow
W	E, F, I	0.03	0.13	0.01	0.01	0.05	0.01	
X	P, V, g	0.03	0.13	0.01	0.00	0.03	0.07	
Y	J, i, 1	0.19	0.23	0.06	0.13	0.37	0.01	
Z	C, e, h	0.05	0.16	0.03	0.08	0.31	0.03	
a	D	0.03	0.13	0.01	0.00	0.03	0.00	
b	E, M, j	0.05	0.14	0.01	0.00	0.21	0.02	
c	F, R, d	0.00	0.12	0.01	0.00	0.00	0.02	←
d	R, Y, 1	0.08	0.16	0.02	0.03	0.23	0.02	
e	A, P, V	0.11	0.19	0.06	0.01	0.34	0.07	
f	G, Q, Y	0.08	0.16	0.03	0.05	0.28	0.01	
g	E, M, X	0.03	0.13	0.01	0.01	0.03	0.02	
h	Y, Z, i	0.11	0.17	0.03	0.07	0.31	0.01	
i	M, R, h	0.11	0.18	0.05	0.14	0.35	0.04	
j	E, M, b	0.05	0.15	0.03	0.02	0.26	0.02	
k	J, Y, 1	0.03	0.13	0.02	0.00	0.22	0.01	
1	J, Q, Y	0.14	0.20	0.05	0.05	0.29	0.01	

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



DEMO 2 | GROUP 1 SNA | RANK SCORES

A. Whom would you choose to spend a free outing with?

ID	CHOICES	IC	KZ	PR	ВТ	CL	HU	ND
A	N, P, e	6	14	10	21	10	9	
В	F, Y, f	8	26	27	19	24	20	
C	M, P, V	6	18	18	12	13	1	
D	a, d, 1	8	28	25	20	26	33	
E	C, G, M	4	6	11	11	13	17	
F	B, I, N	5	15	22	17	22	34	
G	M, f, i	6	12	9	6	12	12	
Н	C, J, Q	9	29	31	29	27	31	\leftarrow
I	F, N, W	7	22	26	25	23	30	
J	Y, k, l	5	10	8	15	14	23	
K	P, R, h	9	29	31	29	27	7	←
L	-	9	29	31	29	27	36	\rightleftharpoons
M	E, G, j	2	3	2	4	4	25	
N	P, V, e	5	11	12	16	7	3	
O	A, i	9	29	31	29	27	24	←
P	A, Z, e	1	1	1	3	1	19	
Q	P, V, f	6	16	16	13	16	4	
R	N, S, d	4	8	14	7	11	32	
S	P, R, V	8	24	24	26	19	2	
T	P, b, h	9	29	31	29	27	8	←
U	-	9	29	31	29	27	36	⇄
V	-	3	4	5	29	2	36	\rightarrow
W	E, F, I	8	27	29	22	25	27	
X	P, V, g	8	28	30	27	26	6	
Y	J, i, l	2	2	3	2	3	29	
Z	C, e, h	7	20	13	5	8	11	
a	D	8	28	28	29	26	35	
b	E, M, j	7	23	23	28	21	15	
c	F, R, d	9	29	31	29	27	18	←
d	R, Y, 1	6	19	20	14	18	14	
e	A, P, V	5	7	4	23	6	5	
f	G, Q, Y	6	17	17	10	15	26	
g	E, M, X	8	28	30	24	26	16	
h	Y, Z, i	5	13	15	8	9	22	
i	M, R, h	5	9	7	1	5	10	
j	E, M, b	7	21	19	18	17	13	
k	J, Y, 1	8	25	21	29	20	21	
1	J, Q, Y	4	5	6	9	12	28	

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



DEMO 2 | GROUP 1

SNA | NODES ORDERED BY RANK

A. Whom would you choose to spend a free outing with?

IC	RK	KZ	RK	PR	RK	ВТ	RK	CL	RK	HU	RK
P	1	P	1	P	1	i	1	P	1	C	1
Y	2	Y	2	M	2	Y	2	V	2	S	2
M	2	M	3	Y	3	P	3	Y	3	N	3
V	3	V	4	e	4	M	4	M	4	Q	4
1	4	1	5	V	5	Z	5	i	5	e	5
E	4	Е	6	1	6	G	6	e	6	X	6
R	4	e	7	i	7	R	7	N	7	K	7
i	5	R	8	J	8	h	8	Z	8	T	8
h	5	i	9	G	9	1	9	h	9	A	9
F	5	J	10	A	10	f	10	A	10	i	10
e	5	N	11	Е	11	Е	11	R	11	Z	11
J	5	G	12	N	12	C	12	1	12	G	12
N	5	h	13	Z	13	Q	13	G	12	j	13
f	6	A	14	R	14	d	14	C	13	d	14
d	6	F	15	h	15	J	15	Е	13	b	15
Q	6	Q	16	Q	16	N	16	J	14	g	16
A	6	f	17	f	17	F	17	f	15	Е	17
C	6	C	18	C	18	j	18	Q	16	c	18
G	6	d	19	j	19	В	19	j	17	P	19
b	7	Z	20	d	20	D	20	d	18	В	20
j	7	j	21	k	21	A	21	S	19	k	21
I	7	I	22	F	22	W	22	k	20	h	22
Z	7	b	23	b	23	e	23	b	21	J	23
В	8	S	24	S	24	g	24	F	22	O	24
g	8	k	25	D	25	I	25	I	23	M	25
D	8	В	26	I	26	S	26	В	24	f	26
S	8	W	27	В	27	X	27	W	25	W	27
X	8	a	28	a	28	b	28	a	26	1	28
W	8	D	28	W	29	Н	29	D	26	Y	29
k	8	g	28	g	30	K	29	g	26	I	30
a	8	X	28	X	30	L	29	X	26	Н	31
O	9	L	29	U	31	V	29	L	27	R	32
c	9	Н	29	T	31	c	29	U	27	D	33
Н	9	c	29	O	31	a	29	c	27	F	34
K	9	U	29	Н	31	k	29	T	27	a	35
U	9	T	29	L	31	T	29	Н	27	V	36
T	9	K	29	c	31	U	29	O	27	U	36
L	9	O	29	K	31	O	29	K	27	L	36

RK Rank IC In-Degree KZ Katz BT Betweenness CL Closeness HU Hub



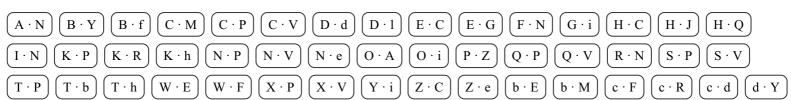
DEMO 2 | GROUP 1

SNA | EDGES GROUPED BY TYPE

A. Whom would you choose to spend a free outing with?

Non reciprocal edges

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



 $\overbrace{d \cdot l} \left(e \cdot V \right) \left(f \cdot Y \right) \left(g \cdot E \right) \left(g \cdot M \right) \left(h \cdot Y \right) \left(i \cdot M \right) \left(i \cdot R \right) \left(j \cdot E \right) \left(k \cdot Y \right) \left(k \cdot l \right) \left(l \cdot Q \right)$

Reciprocal edges

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

 $A \cdot P$ $A \cdot e$ $B \cdot F$ $D\cdot a$ $E\cdot M$ $F\cdot I$ $G\cdot M$ $G \cdot f$ $I \cdot W$ $J\cdot k$ $J \cdot 1$ $M \cdot j$ $P\cdot e$ $Q \cdot f$ $\mathbf{R}\cdot\mathbf{S}$ $X\cdot g$ $Z \cdot h$ b · j

Half symmetrical edges

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

 $Q \cdot V Q \cdot f$

Reversed half symmetrical edges

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

 $\left(\mathbf{f} \cdot \mathbf{Q} \right)$

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

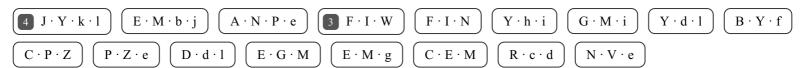


DEMO 2 | GROUP 1 SNA | SUBGRAPHS

A. Whom would you choose to spend a free outing with?

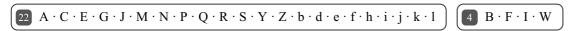
Cliques

Each node can reach every other node: a) without intermediaries; b) ignoring the direction of connections



Strongly Connected Groups

Each node can reach every other node: a) with or without intermediaries; b) following the direction of connections



Weakly Connected Groups

Each node can reach every other node: a) with or without intermediaries; b) ignoring the direction of connections

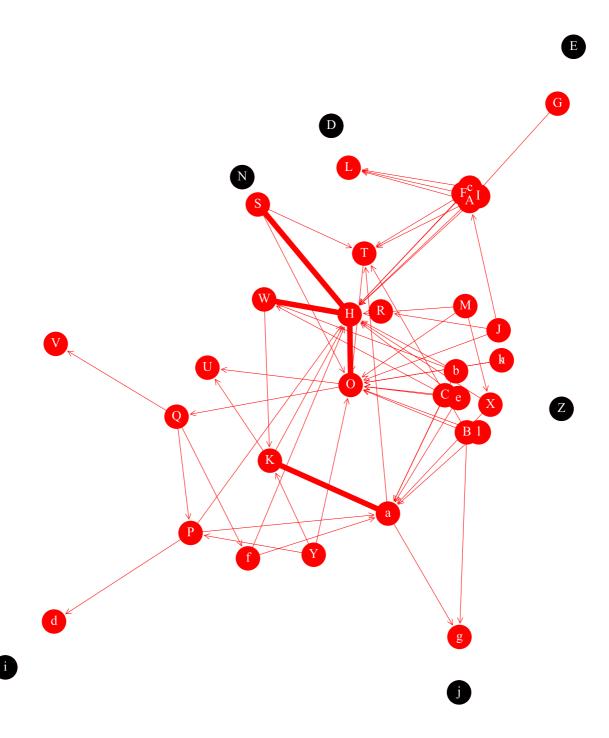
36 $A \cdot B \cdot C \cdot D \cdot E \cdot F \cdot G \cdot H \cdot I \cdot J \cdot K \cdot M \cdot N \cdot O \cdot P \cdot Q \cdot R \cdot S \cdot T \cdot V \cdot W \cdot X \cdot Y \cdot Z \cdot a \cdot b \cdot c \cdot d \cdot e \cdot f \cdot g \cdot h \cdot i \cdot j \cdot k \cdot 1$



DEMO 2 | GROUP 1 SNA | NETWORK GRAPH

B. Whom would you not choose to spend a free outing with?

NN 38, NE 63, NR 4, ND 4%, NC 31%, NT 12%, NR 13%



NN Nodes NE Links NR Reciprocal Links ND Density NC Centralization NT Transitivity NR Reciprocity

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DEMO 2 | GROUP 1 SNA | RAW SCORES

B. Whom would you not choose to spend a free outing with?

ID	CHOICES	IC	KZ	PR	ВТ	CL	HU	ND
A	H, L, T	0.05	0.15	0.02	0.01	0.05	0.05	
В	O, T, g	0.00	0.13	0.01	0.00	0.00	0.03	←
C	O, W, a	0.00	0.13	0.01	0.00	0.00	0.05	←
D	-	0.00	0.13	0.01	0.00	0.00	0.00	\rightleftharpoons
Е	-	0.00	0.13	0.01	0.00	0.00	0.00	\rightleftarrows
F	H, L, T	0.00	0.13	0.01	0.00	0.00	0.05	←
G	A	0.00	0.13	0.01	0.00	0.00	0.00	←
Н	O, S, W	0.38	0.35	0.15	0.10	0.47	0.03	
I	Н	0.00	0.13	0.01	0.00	0.00	0.03	←
J	A, O, R	0.00	0.13	0.01	0.00	0.00	0.02	←
K	H, U, a	0.08	0.18	0.05	0.02	0.25	0.06	
L	-	0.08	0.17	0.02	0.00	0.10	0.00	\rightarrow
M	Н, О, Х	0.00	0.13	0.01	0.00	0.00	0.06	←
N	-	0.00	0.13	0.01	0.00	0.00	0.00	\rightleftarrows
O	H, Q, U	0.32	0.31	0.14	0.13	0.42	0.04	
P	H, a, d	0.05	0.16	0.02	0.03	0.21	0.06	
Q	P, V, f	0.03	0.16	0.05	0.08	0.27	0.00	
R	-	0.03	0.14	0.01	0.00	0.03	0.00	\rightarrow
S	Н, О, Т	0.03	0.16	0.05	0.01	0.28	0.06	
T	0	0.14	0.21	0.05	0.01	0.30	0.02	
U	-	0.05	0.18	0.06	0.00	0.29	0.00	\rightarrow
V	-	0.03	0.14	0.02	0.00	0.21	0.00	\rightarrow
W	H, K	0.08	0.19	0.06	0.02	0.30	0.04	
X	Н, а	0.03	0.14	0.01	0.00	0.03	0.05	
Y	K, O, P	0.00	0.13	0.01	0.00	0.00	0.03	←
Z	-	0.00	0.13	0.01	0.00	0.00	0.00	\rightleftarrows
a	K, T, g	0.22	0.24	0.05	0.03	0.25	0.02	
b	H, W, a	0.00	0.13	0.01	0.00	0.00	0.06	←
c	H, L	0.00	0.13	0.01	0.00	0.00	0.04	←
d	-	0.03	0.14	0.02	0.00	0.17	0.00	\rightarrow
e	Н, О, а	0.00	0.13	0.01	0.00	0.00	0.07	←
f	Н, а	0.03	0.14	0.02	0.01	0.20	0.05	
g	-	0.05	0.16	0.03	0.00	0.21	0.00	\rightarrow
h	0	0.00	0.13	0.01	0.00	0.00	0.02	←
i	-	0.00	0.13	0.01	0.00	0.00	0.00	\rightleftarrows
j	-	0.00	0.13	0.01	0.00	0.00	0.00	\rightleftharpoons
k	O	0.00	0.13	0.01	0.00	0.00	0.02	←
1	O, a	0.00	0.13	0.01	0.00	0.00	0.04	←

IC In-Degree KZ Katz BT Betweenness CL Closeness HU Hub ND No In-Degree (\leftarrow) No Out-Degree (\rightarrow) No In or Out-Degree (\rightleftarrows)



DEMO 2 | GROUP 1 SNA | RANK SCORES

B. Whom would you not choose to spend a free outing with?

ID	CHOICES	IC	KZ	PR	ВТ	CL	HU	ND
A	H, L, T	6	13	14	8	15	8	
В	O, T, g	8	17	17	13	17	15	←
C	O, W, a	8	17	17	13	17	9	←
D	-	8	17	17	13	17	23	\rightleftharpoons
E	-	8	17	17	13	17	23	\rightleftharpoons
F	H, L, T	8	17	17	13	17	8	←
G	A	8	17	17	13	17	22	←
Н	O, S, W	1	1	1	2	1	16	
I	Н	8	17	17	13	17	14	←
J	A, O, R	8	17	17	13	17	18	←
K	H, U, a	5	6	7	7	8	4	
L	-	5	8	13	13	14	23	\rightarrow
M	Н, О, Х	8	17	17	13	17	5	←
N	-	8	17	17	13	17	23	\rightleftharpoons
O	H, Q, U	2	2	2	1	2	12	
P	H, a, d	6	12	11	5	10	6	
Q	P, V, f	7	11	9	3	7	21	
R	-	7	16	16	13	16	23	\rightarrow
S	Н, О, Т	7	10	6	11	6	2	
T	O	4	4	8	9	3	19	
U	-	6	7	3	13	5	23	\rightarrow
V	-	7	14	12	13	9	23	\rightarrow
W	H, K	5	5	4	6	4	13	
X	Н, а	7	16	16	12	16	7	
Y	K, O, P	8	17	17	13	17	17	←
Z	-	8	17	17	13	17	23	\rightleftharpoons
a	K, T, g	3	3	5	4	8	20	
b	H, W, a	8	17	17	13	17	3	←
c	H, L	8	17	17	13	17	11	←
d	-	7	15	15	13	13	23	\rightarrow
e	Н, О, а	8	17	17	13	17	1	←
f	H, a	7	14	12	10	12	7	
g	-	6	9	10	13	11	23	\rightarrow
h	O	8	17	17	13	17	19	←
i	-	8	17	17	13	17	23	\rightleftarrows
j	-	8	17	17	13	17	23	\rightleftharpoons
k	O	8	17	17	13	17	19	←
1	O, a	8	17	17	13	17	10	←

IC In-Degree KZ Katz BT Betweenness CL Closeness HU Hub ND No In-Degree (\leftarrow) No Out-Degree (\rightarrow) No In or Out-Degree (\rightleftarrows)



DEMO 2 | GROUP 1

SNA | NODES ORDERED BY RANK

B. Whom would you not choose to spend a free outing with?

IC	RK	KZ	RK	PR	RK	ВТ	RK	CL	RK	HU	RK
Н	1	H	1	H	1	0	1	Н	1	e	1
O	2	O	2	O	2	Н	2	O	2	S	2
a	3	a	3	U	3	Q	3	T	3	b	3
T	4	T	4	W	4	a	4	W	4	K	4
W	5	W	5	a	5	P	5	U	5	M	5
K	5	K	6	S	6	W	6	S	6	P	6
L	5	U	7	K	7	K	7	Q	7	f	7
A	6	L	8	T	8	A	8	a	8	X	7
g	6	g	9	Q	9	T	9	K	8	A	8
U	6	S	10	g	10	f	10	V	9	F	8
P	6	Q	11	P	11	S	11	P	10	С	9
f	7	P	12	f	12	X	12	g	11	1	10
d	7	A	13	V	12	L	13	f	12	c	11
X	7	f	14	L	13	j	13	d	13	O	12
V	7	V	14	A	14	i	13	L	14	W	13
R	7	d	15	d	15	h	13	A	15	I	14
S	7	R	16	R	16	g	13	R	16	В	15
Q	7	X	16	X	16	В	13	X	16	Н	16
N	8	N	17	M	17	e	13	M	17	Y	17
j	8	j	17	j	17	d	13	j	17	J	18
i	8	i	17	i	17	c	13	i	17	k	19
h	8	h	17	h	17	b	13	h	17	h	19
В	8	В	17	В	17	C	13	В	17	T	19
C	8	e	17	C	17	Z	13	C	17	a	20
e	8	c	17	e	17	Y	13	e	17	Q	21
D	8	b	17	c	17	D	13	D	17	G	22
c	8	Z	17	b	17	V	13	c	17	U	23
b	8	M	17	D	17	U	13	Е	17	j	23
Z	8	Y	17	Z	17	Е	13	N	17	i	23
Y	8	D	17	Y	17	k	13	Z	17	g	23
F	8	Е	17	Е	17	R	13	Y	17	L	23
G	8	F	17	F	17	F	13	F	17	N	23
I	8	k	17	G	17	G	13	G	17	D	23
J	8	G	17	I	17	I	13	I	17	Z	23
M	8	I	17	k	17	N	13	J	17	R	23
k	8	J	17	J	17	M	13	k	17	V	23
Е	8	C	17	N	17	J	13	b	17	d	23
1	8	1	17	1	17	1	13	1	17	E	23

RK Rank IC In-Degree KZ Katz BT Betweenness CL Closeness HU Hub

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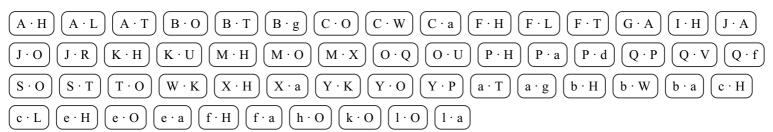
DEMO 2 | GROUP 1

SNA | EDGES GROUPED BY TYPE

B. Whom would you not choose to spend a free outing with?

Non reciprocal edges

 $X \rightarrow Y$ in network $B \cdot not Y \rightarrow X$ in network B



Reciprocal edges

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



Half symmetrical edges

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



Reversed half symmetrical edges

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



Full symmetrical edges

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

No edge of this type



DEMO 2 | GROUP 1 SNA | SUBGRAPHS

B. Whom would you not choose to spend a free outing with?

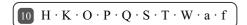
Cliques

Each node can reach every other node: a) without intermediaries; b) ignoring the direction of connections



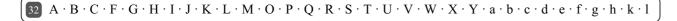
Strongly Connected Groups

Each node can reach every other node: a) with or without intermediaries; b) following the direction of connections



Weakly Connected Groups

Each node can reach every other node: a) with or without intermediaries; b) ignoring the direction of connections





DEMO 2 | GROUP 1

SNA | RANK DIFFERENCE A-B

NO	IC A-B	NO	KZ A-B	NO	PR A-B	NO	BT A-B	NO	CL A-B	NO	HU A-B
P	-5	P	-11	P	-10	i	-12	P	-9	C	-8
Y	-6	Y	-15	M	-15	Y	-11	V	-7	S	0
M	-6	M	-14	Y	-14	P	-2	Y	-14	N	-20
V	-4	V	-10	e	-13	M	-9	M	-13	Q	-17
1	-4	1	-12	V	-7	Z	-8	i	-12	e	4
E	-4	E	-11	1	-11	G	-7	e	-11	X	-1
R	-3	e	-10	i	-10	R	-6	N	-10	K	3
i	-3	R	-8	J	-9	h	-5	Z	-9	T	-11
h	-3	i	-8	G	-8	1	-4	h	-8	A	1
F	-3	J	-7	A	-4	f	0	A	-5	i	-13
e	-3	N	-6	E	-6	E	-2	R	-5	Z	-12
J	-3	G	-5	N	-5	C	-1	1	-5	G	-10
N	-3	h	-4	Z	-4	Q	10	G	-5	j	-10
f	-1	A	1	R	-2	d	1	C	-4	d	-9
d	-1	F	-2	h	-2	J	2	Е	-4	b	12
Q	-1	Q	5	Q	7	N	3	J	-3	g	-7
A	0	f	3	f	5	F	4	f	3	Е	-6
C	-2	C	1	C	1	j	5	Q	9	c	7
G	-2	d	4	j	2	В	6	j	0	P	13
b	-1	Z	3	d	5	D	7	d	5	В	5
j	-1	j	4	k	4	A	13	S	13	k	2
I	-1	I	5	F	5	W	16	k	3	h	3
Z	-1	b	6	b	6	e	10	b	4	J	5
В	0	S	14	S	18	g	11	F	5	O	12
g	2	k	8	D	8	I	12	I	6	M	20
D	0	В	9	I	9	S	15	В	7	f	19
S	1	W	22	В	10	X	15	W	21	W	14
X	1	a	25	a	23	b	15	a	18	1	18
W	3	D	11	W	25	H	27	D	9	Y	12
k	0	g	19	g	20	K	22	g	15	I	16
a	5	X	12	X	14	L	16	X	10	Н	15
0	7	L	21	U	28	V	16	L	13	R	9
С	1	Н	28	T	23	c	16	U	22	D	10
Н	8	c	12	0	29	a	25	c	10	F	26
K	4	U	22	H	30	k	16	T	24	a	15
U	3	T	25	L	18	T	20	Н	26	V	13
T	5	K	23	C	14	U	16	0	25	U	13
L	4	O	27	K	24	O	28	K	19	L	13

NO Node IC In-Degree KZ Katz BT Betweenness CL Closeness HU Hub



DEMO 2 | GROUP 1 SNA | DESCRIPTIVE

A. Whom would you choose to spend a free outing with?

NN 38, NE 102, NR 22, ND 7%, NC 17%, NT 28%, NR 43%

ID	Count	Min	Max	Median	Mean	SD	CV	GN	SK	KT	P25	P75
In degree Centrality	38.00	0.00	0.24	0.07	0.07	0.06	0.84	0.46	0.80	0.28	0.03	0.11
PageRank Centrality	38.00	0.01	0.07	0.02	0.03	0.02	0.73	0.40	0.62	-0.78	0.01	0.04
Katz Centrality	38.00	0.12	0.25	0.16	0.16	0.04	0.23	0.13	0.68	-0.13	0.13	0.18
Betweenness Centrality	38.00	0.00	0.14	0.02	0.03	0.04	1.18	0.61	1.24	0.59	0.00	0.05
Closeness Centrality	38.00	0.00	0.42	0.25	0.19	0.14	0.75	0.41	-0.23	-1.59	0.03	0.30
Hub Centrality	38.00	0.00	0.08	0.02	0.03	0.03	1.00	0.51	1.09	-0.30	0.01	0.04

NN Nodes NE Links NR Reciprocal Links ND Density NC Centralization NT Transitivity NR Reciprocity Count Frequency Sum Sum Min Minimum Value Max Maximum Value Median Median Mean Mean SD Standard Deviation CV Coefficient of Variation GN Gini Coefficient SK Skewness KT Kurtosis P25 25th Percentile P75 75th Percentile

B. Whom would you not choose to spend a free outing with?

NN 38, NE 63, NR 4, ND 4%, NC 31%, NT 12%, NR 13%

ID	Count	Min	Max	Median	Mean	SD	CV	GN	SK	KT	P25	P75
In degree Centrality	38.00	0.00	0.38	0.00	0.04	0.09	1.92	0.76	2.83	8.08	0.00	0.05
PageRank Centrality	38.00	0.01	0.15	0.01	0.03	0.03	1.24	0.51	2.65	7.45	0.01	0.03
Katz Centrality	38.00	0.13	0.35	0.13	0.15	0.05	0.32	0.13	2.72	7.73	0.13	0.16
Betweenness Centrality	38.00	0.00	0.13	0.00	0.01	0.03	2.41	0.85	3.02	8.82	0.00	0.01
Closeness Centrality	38.00	0.00	0.47	0.00	0.11	0.14	1.32	0.66	0.99	-0.21	0.00	0.21
Hub Centrality	38.00	0.00	0.07	0.02	0.03	0.02	0.91	0.50	0.24	-1.34	0.00	0.05

NN Nodes NE Links NR Reciprocal Links ND Density NC Centralization NT Transitivity NR Reciprocity Count Frequency Sum Sum Min Minimum Value Max Maximum Value Median Median Mean Mean SD Standard Deviation CV Coefficient of Variation GN Gini Coefficient SK Skewness KT Kurtosis P25 25th Percentile P75 75th Percentile



DEMO 2 | GROUP 1

SOCIOGRAM | RAW SCORES

ID	RP	RR	GP	GR	MP	MR	BL	OR	IM	AI	II	ST
A	3	2	3	3	2	0	1	0	5	1	5	ambitendent
В	1	0	3	3	1	0	1	0	1	1	2	marginal
C	3	0	3	3	0	0	3	0	3	3	3	appreciated
D	1	0	3	0	1	0	1	3	1	4	2	marginal
E	5	0	3	0	1	0	5	3	5	8	6	popular
F	4	0	3	3	2	0	4	0	4	4	6	appreciated
G	3	0	3	1	2	0	3	2	3	5	5	appreciated
Н	0	14	3	3	0	3	-14	0	14	-14	0	rejected
I	2	0	3	1	2	0	2	2	2	4	4	appreciated
J	4	0	3	3	3	0	4	0	4	4	7	appreciated
K	0	3	3	3	0	1	-3	0	3	-3	0	disliked
L	0	3	0	0	0	0	-3	0	3	-3	0	disliked
M	7	0	3	3	3	0	7	0	7	7	10	popular
N	4	0	3	0	0	0	4	3	4	7	4	appreciated
О	0	12	2	3	0	1	-12	-1	12	-13	0	rejected
P	9	2	3	3	2	0	7	0	11	7	11	popular
Q	3	1	3	3	1	0	2	0	4	2	4	appreciated
R	5	1	3	0	2	0	4	3	6	7	7	appreciated
S	1	1	3	3	1	1	0	0	2	0	2	ambitendent
T	0	5	3	1	0	0	-5	2	5	-3	0	rejected
U	0	2	0	0	0	0	-2	0	2	-2	0	disliked
V	6	1	0	0	0	0	5	0	7	5	6	popular
W	1	3	3	2	1	1	-2	1	4	-1	2	disliked
X	1	1	3	2	1	0	0	1	2	1	2	ambitendent
Y	7	0	3	3	2	0	7	0	7	7	9	popular
Z	2	0	3	0	1	0	2	3	2	5	3	appreciated
a	1	8	1	3	1	1	-7	-2	9	-9	2	rejected
b	2	0	3	3	1	0	2	0	2	2	3	appreciated
c	0	0	3	2	0	0	0	1	0	1	0	marginal
d	3	1	3	0	1	0	2	3	4	5	4	appreciated
e	4	0	3	3	2	0	4	0	4	4	6	appreciated
f	3	1	3	2	2	0	2	1	4	3	5	appreciated
g	1	2	3	0	1	0	-1	3	3	2	2	ambitendent
h	4	0	3	1	2	0	4	2	4	6	6	appreciated
i	4	0	3	0	1	0	4	3	4	7	5	appreciated
j	2	0	3	0	2	0	2	3	2	5	4	appreciated
k	1	0	3	1	1	0	1	2	1	3	2	marginal
1	5	0	3	2	2	0	5	1	5	6	7	popular

RP Received Preferences RR Received Rejections GP Given Preferences GR Given Rejections MP Mutual Preferences MR Mutual Rejections BL Balance OR Orientation IM Impact AI Affiliation Index II Influence Index ST Sociometric Status



DEMO 2 | GROUP 1

SOCIOGRAM | NODES ORDERED BY RANK

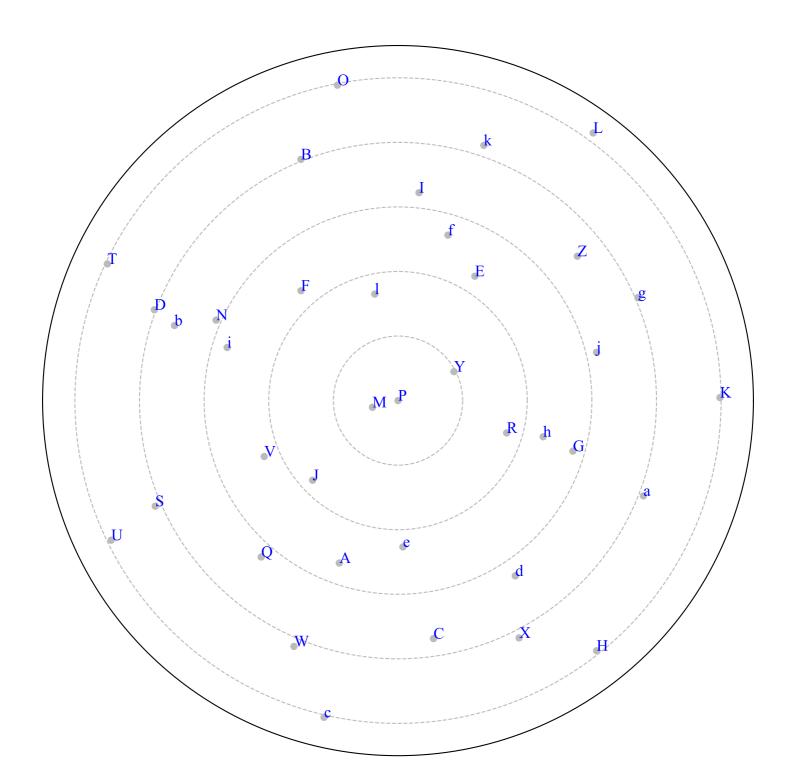
BL	RK	IM	RK	AI	RK	Ш	RK	ST	RK
P	1.0	H	1.0	E	1.0	P	1.0	1	1
M	1.0	O	2.0	M	2.0	M	2.0	Y	1
Y	1.0	P	3.0	R	2.0	Y	3.0	V	1
1	2.0	a	4.0	P	2.0	1	4.0	E	1
V	2.0	Y	5.0	N	2.0	J	4.0	P	1
E	2.0	V	5.0	Y	2.0	R	4.0	M	1
F	3.0	M	5.0	i	2.0	h	5.0	d	2
R	3.0	R	6.0	h	3.0	E	5.0	e	2
e	3.0	A	7.0	1	3.0	F	5.0	f	2
i	3.0	T	7.0	j	4.0	e	5.0	R	2
N	3.0	1	7.0	V	4.0	V	5.0	Q	2
h	3.0	Е	7.0	d	4.0	i	6.0	Z	2
J	3.0	J	8.0	Z	4.0	f	6.0	N	2
C	4.0	N	8.0	G	4.0	A	6.0	i	2
G	4.0	i	8.0	D	5.0	G	6.0	J	2
I	5.0	h	8.0	I	5.0	j	7.0	I	2
d	5.0	Q	8.0	e	5.0	Q	7.0	j	2
j	5.0	F	8.0	F	5.0	I	7.0	G	2
Q	5.0	f	8.0	J	5.0	d	7.0	F	2
b	5.0	e	8.0	f	6.0	N	7.0	C	2
Z	5.0	W	8.0	C	6.0	Z	8.0	h	2
f	5.0	d	8.0	k	6.0	C	8.0	b	2
A	6.0	L	9.0	Q	7.0	b	8.0	k	3
k	6.0	g	9.0	g	7.0	В	9.0	D	3
D	6.0	C	9.0	b	7.0	g	9.0	c	3
В	6.0	G	9.0	c	8.0	D	9.0	В	3
X	7.0	K	9.0	A	8.0	S	9.0	g	4
c	7.0	Z	10.0	X	8.0	X	9.0	A	4
S	7.0	b	10.0	В	8.0	W	9.0	X	4
g	8.0	X	10.0	S	9.0	k	9.0	S	4
U	9.0	U	10.0	W	10.0	a	9.0	W	6
W	9.0	I	10.0	U	11.0	Н	10.0	U	6
L	10.0	j	10.0	T	12.0	c	10.0	L	6
K	10.0	S	10.0	L	12.0	U	10.0	K	6
T	11.0	В	11.0	K	12.0	T	10.0	T	7
a	12.0	D	11.0	a	13.0	K	10.0	0	7
O	13.0	k	11.0	O	14.0	L	10.0	Н	7
Н	14.0	c	12.0	Н	15.0	0	10.0	a	7

RP Received Preferences RR Received Rejections GP Given Preferences GR Given Rejections BL Balance IM Impact AI Affiliation Index II Influence Index



DEMO 2 | GROUP 1 SOCIOGRAM | GRAPH

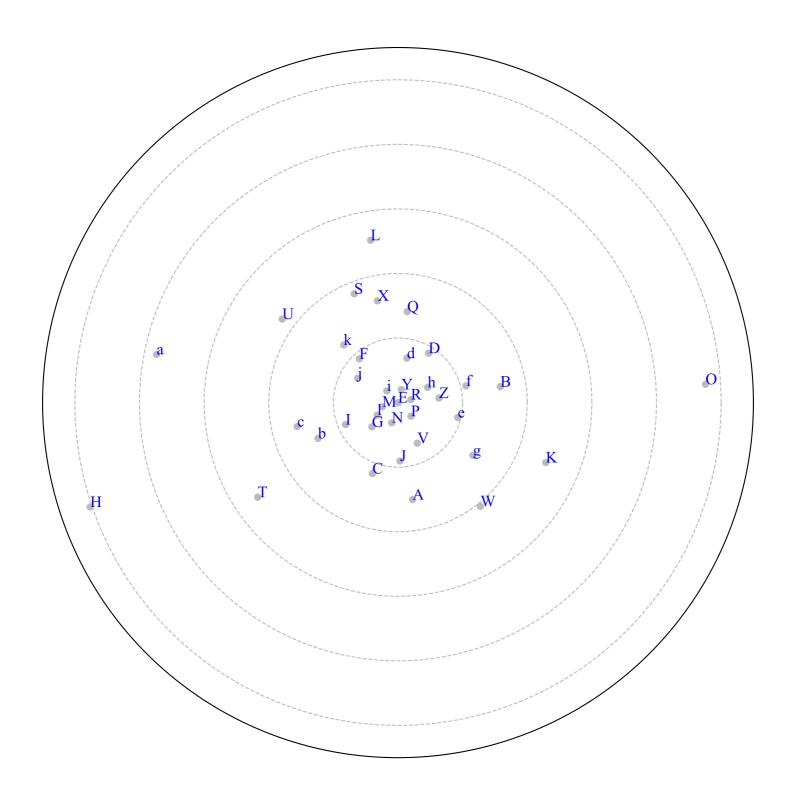
Influence index





DEMO 2 | GROUP 1 SOCIOGRAM | GRAPH

Affiliation index





DEMO 2 | GROUP 1

SOCIOGRAM | DESCRIPTIVES

Type I cohesion index: 43.14% Type II cohesion index: 0.58 Type I conflitct index: 12.70% Type II conflitct index: 0.11

ID	Count	Min	Max	Median	Mean	SD	CV	GN	SK	KT	P25	P75
Received preferences	38.00	0.00	9.00	2.50	2.68	2.27	0.84	0.46	0.80	0.28	1.00	4.00
Received rejections	38.00	0.00	14.00	0.00	1.66	3.18	1.92	0.76	2.83	8.08	0.00	2.00
Given Preferences	38.00	0.00	3.00	3.00	2.68	0.87	0.33	0.10	-2.66	5.73	3.00	3.00
Given rejections	38.00	0.00	3.00	2.00	1.66	1.32	0.80	0.43	-0.21	-1.76	0.00	3.00
Mutual preferences	38.00	0.00	3.00	1.00	1.16	0.89	0.77	0.41	0.17	-0.83	0.25	2.00
Mutual rejections	38.00	0.00	3.00	0.00	0.21	0.58	2.74	0.88	3.55	14.69	0.00	0.00
Balance	38.00	-14.00	7.00	2.00	1.03	4.61	4.49	0.41	-1.61	3.18	0.00	4.00
Orientation	38.00	-2.00	3.00	0.50	1.03	1.38	1.35	0.56	0.21	-1.01	0.00	2.00
Impact	38.00	0.00	14.00	4.00	4.34	3.05	0.70	0.35	1.52	2.49	2.00	5.00
Affiliation index	38.00	-14.00	8.00	3.50	2.05	5.19	2.53	0.36	-1.67	2.92	1.00	5.00
Influence index	38.00	0.00	11.00	4.00	3.84	2.88	0.75	0.41	0.52	-0.12	2.00	6.00
	38.00	1.00	9.00	6.50	6.34	2.20	0.35	0.19	-0.64	-0.30	5.00	8.00
	38.00	1.00	8.00	8.00	6.79	1.80	0.27	0.12	-1.77	2.73	6.00	8.00
	38.00	1.00	4.00	1.00	1.32	0.87	0.66	0.21	2.66	5.73	1.00	1.00
	38.00	1.00	4.00	2.00	2.34	1.32	0.56	0.30	0.21	-1.76	1.00	4.00
	38.00	1.00	4.00	3.00	2.84	0.89	0.31	0.17	-0.17	-0.83	2.00	3.75
	38.00	1.00	3.00	3.00	2.82	0.46	0.16	0.06	-2.55	6.35	3.00	3.00
	38.00	1.00	14.00	5.00	5.63	3.40	0.60	0.33	0.79	-0.01	3.00	7.00
	38.00	1.00	6.00	3.50	2.97	1.38	0.47	0.25	-0.21	-1.01	2.00	4.00
	38.00	1.00	12.00	8.00	7.87	2.53	0.32	0.17	-0.96	0.75	7.00	10.00
	38.00	1.00	15.00	5.50	6.39	3.78	0.59	0.33	0.66	-0.47	4.00	8.00
	38.00	1.00	10.00	7.00	7.05	2.47	0.35	0.19	-0.59	-0.48	5.00	9.00
	38.00	1.00	7.00	2.00	3.11	1.97	0.63	0.33	0.97	-0.42	2.00	4.00

Count Frequency Sum Sum Min Minimum Value Max Maximum Value Median Median Mean SD Standard Deviation CV Coefficient of Variation GN Gini Coefficient SK Skewness KT Kurtosis P25 25th Percentile P75 75th Percentile