

Supplementary Material: SM I
The influence weights of the 4 real organizational networks

From the relevant datasets, we construct the influence weights from the responses of the agents to the questionnaires.

The influence weights for the first two networks (CC and MC) are constructed as follows (Table SMI.1 and Table SMI.2).

Table SM I.1: Influence Weights Estimation for the CC network [100, 103]	
Response of agent κ to the Question: <i>“How often you have turned to this person (agent λ) for information or advice on work-related topics in the past three months?”</i>	Influence Weight from agent λ to agent κ : $w_{\lambda\kappa} = w_{\lambda \rightarrow \kappa}$
I do not know / I have not seen this person	0.00
Seldom	0.25
Sometimes	0.50
Often	0.75
Very Often	0.90

Table SM I.2: Influence Weights Estimation for the MC network [100, 103]	
Response of agent κ to the Question: <i>“Please indicate the extent to which the people listed below (agents λ) provide you with information you use to accomplish your work”</i>	Influence Weight from agent λ to agent κ : $w_{\lambda\kappa} = w_{\lambda \rightarrow \kappa}$
I do not know / I have never met this this person	0.00
Very Infrequently	0.05
Infrequently	0.20
Somewhat Infrequently	0.40
Somewhat Frequently	0.60
Frequently	0.80
Very Frequently	0.95

The influence weights for the third network (LF) are constructed as follows. For each link between two agents, we sum the weights of the three network layers, namely:

- ADVICE
- FRIENDSHIP
- CO-WORK

As the weight matrix of each layer is in fact an adjacency matrix taking values 0 or 1 (Table SMI.3), the links of the resulting weight matrix of the sum of the three network layers take values: 0, 1, 2, 3. For each case, we assign different influence weights (Table SMI.4).

Table SM I.3: Weights Values for each layer of the LF network [101, 104]		
Network Layer	Question for estimating the weight of each layer	Weight from agent λ to agent κ , at a certain layer: $w_{\lambda\kappa} = w_{\lambda \rightarrow \kappa}$
ADVICE	Response of agent κ to the Question: <i>“Please indicate the people listed below (agents λ) you have referred to for professional advice”</i>	0 = NO
		1 = YES
FRIENDSHIP	Response of agent κ to the Question: <i>“Please indicate the people listed below (agents λ) you socialize with outside work”</i>	0 = NO
		1 = YES
CO-WORK	Response of agent κ to the Question: <i>“Please indicate the people listed below (agents λ) you have worked with”</i>	0 = NO
		1 = YES

Table SM I.4: Influence Weights Estimation for the LF network [101, 104]	
Sum of link weights of the three network layers (ADVICE, FRIENDSHIP, CO-WORK)	Influence Weight from agent λ to agent κ : $w_{\lambda\kappa} = w_{\lambda \rightarrow \kappa}$
Sum = 0	0.00
Sum = 1	0.30
Sum = 2	0.60
Sum = 3	0.90

The influence weights for the fourth network (IT) are constructed as follows. For each link between two agents, we sum the weights of the four network layers, namely:

- BUSINESS_1
- BUSINESS_2
- ADVICE
- TECHNICAL

As the weights of each layer take integer values from 0 to 5 (Table SMI.5), the links of the resulting weight matrix of the sum of the four network layers take integer values from 0 to 20. The influence weights for the IT network are constructed by dividing all elements of the resulting weight matrix with the maximal value 20, normalizing the influence weights in order to take values in the interval $[0, 1]$.

Table SM I.5: Weights Values for each layer of the IT network [102]		
Network Layer	Question for estimating the weight of each layer	Weight from agent λ to agent κ , at a certain layer: $w_{\lambda\kappa} = w_{\lambda \rightarrow \kappa}$
BUSINESS_1	Response of agent κ to the Question: <i>“Please indicate the extent to which you work with the people listed below (agents λ) in Business Process 1”</i>	0 = No interaction
		1 = Yearly or less
		2 = Quarterly
		3 = Monthly
		4 = Weekly
		5 = Daily or more
BUSINESS_2	Response of agent κ to the Question: <i>“Please indicate the extent to which you work with the people listed below (agents λ) in Business Process 2”</i>	0 = No interaction
		1 = Yearly or less
		2 = Quarterly
		3 = Monthly
		4 = Weekly
		5 = Daily or more
ADVICE	Response of agent κ to the Question: <i>“How often you have turned to this person (agent λ) to seek advice before making a key decision?”</i>	0 = No interaction
		1 = Yearly or less
		2 = Quarterly
		3 = Monthly
		4 = Weekly
		5 = Daily or more
TECHNICAL	Response of agent κ to the Question: <i>“How often you have turned to this person (agent λ) to seek technical expertise in IT”</i>	0 = No interaction
		1 = Yearly or less
		2 = Quarterly
		3 = Monthly
		4 = Weekly
		5 = Daily or more