ALL MEASURES BY CATEGORY REPORT

Input data: CybontoAnalysis

Start time: Wed Jul 28 12:58:24 2021

Data Description

Calculates a collection of measures using the selected input networks.

Node-level centrality measures were computed.

Measures taking a single input network or multiple networks were computed.

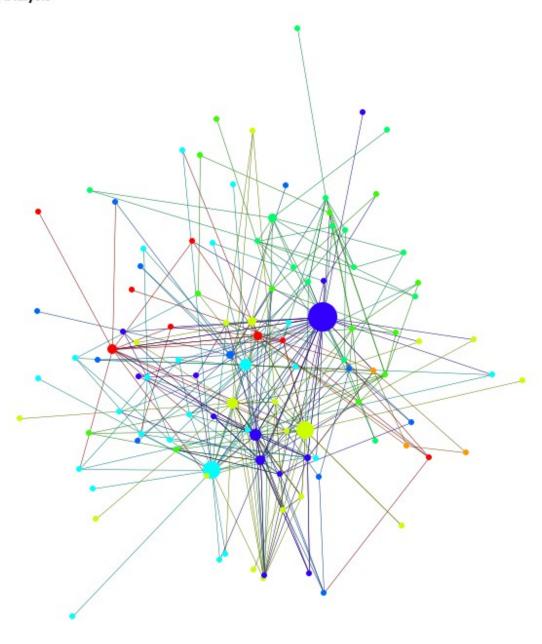
Unimodal and bimodal networks were used.

Measure Category Analysis: Agent x Agent

This page displays measures for the network Agent x Agent.

Network images have nodes colored by group and sized by betweenness centrality.

CybontoAnalysis



powered by ORA

Agent-Level Measures

These measures were run on the specified network, and produced a vector of values, one value for each Agent node.

| Show 10 v entries | | | | | | | | |
|-----------------------|-----|-------|-------|---------|--|--|--|--|
| Measure | Min | Mean | Max | Std.Dev | | | | |
| Centrality, Authority | 0 | 0.060 | 0.468 | 0.099 | | | | |

| Measure | Min | Mean | Max | Std.Dev |
|---------------------------------------|-----------|-----------|-----------|-----------|
| Centrality, Authority [Unscaled] | 0 | 0.042 | 0.331 | 0.070 |
| Centrality, Betweenness | 0 | 0.017 | 0.229 | 0.036 |
| Centrality, Betweenness [Unscaled] | 0 | 188.051 | 2,592.560 | 406.452 |
| Centrality, Bonacich Power | 0 | 7.305e-04 | 0.012 | 0.001 |
| Centrality, Bonacich Power [Unscaled] | 0 | 0.061 | 1 | 0.109 |
| Centrality, Closeness | 0.002 | 0.013 | 0.020 | 0.006 |
| Centrality, Closeness [Unscaled] | 2.163e-05 | 1.241e-04 | 1.829e-04 | 5.919e-05 |
| Centrality, Contribution | 0 | 0.082 | 0.797 | 0.105 |
| Centrality, Contribution [Unscaled] | 0 | 0.058 | 0.563 | 0.074 |

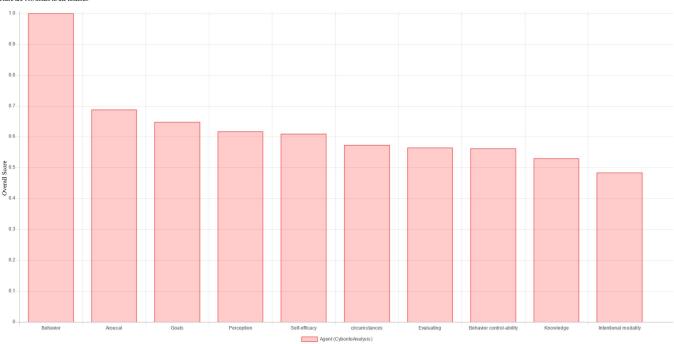
Showing 1 to 10 of 37 entries

Previous 1 2 3 4 Next

Overall Top-Ranked Agent

This chart shows the Agent nodes that are top-ranked overall using the node-level measures listed below. The value shown for a node is the average of its measure values, each of which is first converted into a z-score. The final scores are then normalized to be between zero and one.

There are 108 nodes in the nodeset.



Measure List

Centrality, Authority [Agent x Agent]

Centrality, Betweenness [Agent x Agent]

Centrality, Bonacich Power [Agent x Agent]

Centrality, Closeness [Agent x Agent]

Centrality, Contribution [Agent x Agent]

Centrality, Eccentricity [Agent x Agent]
Centrality, Ego Betweenness [Agent x Agent]

Centrality, Eigenvector [Agent x Agent]

Centrality, Exponential Rank [Agent x Agent]

Centrality, Hub [Agent x Agent]

Centrality, In-Closeness [Agent x Agent]

Centrality, In-Degree [Agent x Agent]

Centrality, In-Inverse Closeness [Agent x Agent]

Centrality, Information [Agent x Agent]

 $\underline{Centrality, Inverse\ Closeness\ [Agent\ x\ Agent]}$

Centrality, Katz [Agent x Agent]

Centrality, Out-Degree [Agent x Agent]

Centrality, PageRank [Agent x Agent]

Centrality, Radiality [Agent x Agent]

Centrality, Total-Degree [Agent x Agent] Centrality, Authority

A node is authority-central to the extent that its in-links are from nodes that have many out-links. Individuals or organizations that act as authorities are receiving information from a wide range of others each of whom sends information to a large number of others.

If the node of interest has a higher than normal value (greater than 1 standard deviation(s) above the mean) the row is colored red. The row is green if the node is within 1 standard deviation of the mean. Finally, the row is colored blue if the node has a lower than normal value (less than one standard deviation(s) below the mean).

Input network(s): Agent x Agent

Show 10 v entries

| Rank | | Agent | | | | Value | | | Unscale | i | | |
|--------------|-------------------|----------|-----------------|-----------------|-----------|-------|----------|-------|---------|-------|----|------|
| 1 | | circums | tances | | | 0.468 | | | 0.331 | 0.331 | | |
| 2 | | Evaluat | ing | | | 0.408 | 0.408 | | 0.289 | 0.289 | | |
| 3 | | Arousa | Į. | | | 0.379 | | | 0.268 | | | |
| 4 | | Self-eff | icacy | | | 0.369 | | | 0.261 | | | |
| 5 | | Behavio | or control-abil | ity | | 0.329 | | | 0.232 | | | |
| 6 | | Intentio | nal modality | | | 0.326 | | | 0.230 | | | |
| 7 | | Percept | ion | | | 0.280 | | | 0.198 | | | |
| 8 | | Goals | | | | 0.266 | | 0.188 | | | | |
| 9 | | Subject | ive norms | | | 0.217 | | | 0.154 | | | |
| 10 | | Persiste | nce | | | 0.212 | | | 0.150 | | | |
| Showing 1 to | 10 of 100 entries | | | | | | Previous | 1 2 | 3 4 | 5 . | 10 | Next |
| Value statis | tics | | | | | | | | | | | |
| Min: | 0 | Mean: | 0.060 | Lower quartile: | 0.001 | | | | | | | |
| Max: | 0.468 | Std.dev: | 0.099 | Median: | 0.011 | | | | | | | |
| | | | | Upper quartile: | 0.095 | | | | | | | |
| Unscaled va | lue statistics | | | | | | | | | | | |
| Min: | 0 | Mean: | 0.042 | Lower quartile: | 7.094e-04 | | | | | | | |
| Max: | 0.331 | Std.dev: | 0.070 | Median: | 0.008 | | | | | | | |
| | | | | Upper quartile: | 0.067 | | | | | | | |

Centrality, Betweenness

The Betweenness Centrality of node v in a network is defined as: across all node pairs that have a shortest path containing v, the percentage that pass through v. When the data is weighted, the higher the weight the more value the link has. Individuals or organizations that are potentially influential are positioned to broker connections between groups and to bring to bear the influence of one group on another or serve as a gatekeeper between groups. This agent occurs on many of the shortest paths between other agents. The scientific name of this measure is betweenness centrality and it is calculated on agent by agent matrices.

If the node of interest has a higher than normal value (greater than 1 standard deviation(s) above the mean) the row is colored red. The row is green if the node is within 1 standard deviation of the mean. Finally, the row is colored blue if the node has a lower than normal value (less than one standard deviation(s) below the mean).

Input network: Agent x Agent (size: 108, density: 0.0267394)

| Show 10 v entries | low 10 v entries | | | | | | | | |
|-------------------|--------------------------|-------|-----------|----------|--|--|--|--|--|
| Rank | Agent | Value | Unscaled | Context* | | | | | |
| 1 | Behavior | 0.229 | 2,592.560 | 2.637 | | | | | |
| 2 | Goals | 0.145 | 1,639.784 | 1.545 | | | | | |
| 3 | Perception | 0.144 | 1,627.786 | 1.531 | | | | | |
| 4 | Arousal | 0.098 | 1,108.497 | 0.936 | | | | | |
| 5 | Behavior control-ability | 0.097 | 1,094.638 | 0.920 | | | | | |
| 6 | Knowledge | 0.090 | 1,025.946 | 0.842 | | | | | |
| 7 | Self-efficacy | 0.084 | 949.984 | 0.755 | | | | | |
| 8 | Evaluating | 0.081 | 922.414 | 0.723 | | | | | |
| 9 | Perceived consensus | 0.071 | 809.305 | 0.593 | | | | | |
| 10 | Differential associating | 0.071 | 808.848 | 0.593 | | | | | |

Previous 1 2 3 4 5 ... 10 Next Showing 1 to 10 of 100 entries

* Number of standard deviations from the mean of a random network of the same size and density

| Value stat | istics | | | | | | | |
|------------|------------------|----------|---------|------------------------|---------|-------|-----------------|-----------|
| Min: | 0 | Mean: | 0.017 | Mean in random netwo | ork: | 0.026 | Lower quartile: | 0 |
| Max: | 0.229 | Std.dev: | 0.036 | Std.dev in random netv | work: | 0.077 | Median: | 8.412e-04 |
| | | | | | | | Upper quartile: | 0.013 |
| Unscaled | value statistics | | | | | | | |
| Min: | 0 | Mean: | 188.051 | Lower quartile: | 0 | | | |
| Max: | 2,592.560 | Std.dev: | 406.452 | Median: | 9.540 | | | |
| | | | | Upper quartile: | 152.253 | | | |

Back to measure list

Centrality, Bonacich Power

This computes the centrality of each entity based on the centrality of its neighbors. Beta should be chosen such that its absolute value is less than the reciprocal of the largest eigenvalue of N.

If the node of interest has a higher than normal value (greater than 1 standard deviation(s) above the mean) the row is colored red. The row is green if the node is within 1 standard deviation of the mean. Finally, the row is colored blue if the node has a lower than normal value (less than one standard deviation(s) below the mean).

Input network(s): Agent x Agent

Value statistics



| Min: | 0 | Mean: | 7.305e-04 | Lower quartile: | 1.630e-04 |
|----------|------------------|----------|-----------|-----------------|-----------|
| Max: | 0.012 | Std.dev: | 0.001 | Median: | 3.046e-04 |
| | | | | Upper quartile: | 8.145e-04 |
| Unscaled | value statistics | | | | |
| Min: | 0 | Mean: | 0.061 | Lower quartile: | 0.014 |
| Max: | 1 | Std.dev: | 0.109 | Median: | 0.025 |
| | | | | Unner quartile: | 0.068 |

Centrality, Closeness

The closeness of a node to the other nodes in a network (also called out-closeness). Loosely, Closeness is the inverse of the sum of distances in the network from a node to all other nodes.

If the node of interest has a higher than normal value (greater than 1 standard deviation(s) above the mean) the row is colored red. The row is green if the node is within 1 standard deviation of the mean. Finally, the row is colored blue if the node has a lower than normal value (less than one standard deviation(s) below the mean).

Input network: Agent x Agent (size: 108, density: 0.0267394)

| Show 10 ventries | | | | | | | | |
|--------------------------------|----------------------|-------|-----------|----------|--|--|--|--|
| Rank | Agent | Value | Unscaled | Context* | | | | |
| 1 | Threat appraisal | 0.020 | 1.829e-04 | -1.631 | | | | |
| 2 | Maladaptive response | 0.018 | 1.685e-04 | -1.841 | | | | |
| 3 | Distal goal | 0.018 | 1.678e-04 | -1.851 | | | | |
| 4 | Learning goal | 0.018 | 1.678e-04 | -1.851 | | | | |
| 5 | Participating goal | 0.018 | 1.678e-04 | -1.851 | | | | |
| 6 | Proximal goal | 0.018 | 1.678e-04 | -1.851 | | | | |
| 7 | Gains | 0.018 | 1.668e-04 | -1.866 | | | | |
| 8 | Losses | 0.018 | 1.668e-04 | -1.866 | | | | |
| 9 | descriptive norm | 0.018 | 1.653e-04 | -1.887 | | | | |
| 10 | Isolation efect | 0.018 | 1.645e-04 | -1.899 | | | | |
| Showing 1 to 10 of 100 entries | | | | | | | | |

* Number of standard deviations from the mean of a random network of the same size and density



Back to measure list

Centrality, Contribution

This computes Eigenvector Centrality on a transformation of the input network. Link values are transformed to be proportional to the dissimilarity of the nodes they connect. The intuition is that a link between two nodes with the same neighbors is not an important link since neither node gains new neighbors by the connection. Specifically, each link is weighted by the inverse of the Jaccard similarity of its nodes.

If the node of interest has a higher than normal value (greater than 1 standard deviation(s) above the mean) the row is colored red. The row is green if the node is within 1 standard deviation of the mean. Finally, the row is colored blue if the node has a lower than normal value (less than one standard deviation(s) below the mean).

Input network(s): Agent x Agent

| Show 10 v entries | aow [10 ∨ entries | | | | | | | |
|--------------------------------|--------------------------|--------------|---------------|--|--|--|--|--|
| Rank | Agent | Value | Unscaled | | | | | |
| 1 | Behavior | 0.797 | 0.563 | | | | | |
| 2 | Evaluating | 0.359 | 0.254 | | | | | |
| 3 | Arousal | 0.358 | 0.253 | | | | | |
| 4 | circumstances | 0.331 | 0.234 | | | | | |
| 5 | Behavior control-ability | 0.300 | 0.212 | | | | | |
| 6 | Goals | 0.294 | 0.208 | | | | | |
| 7 | Self-efficacy | 0.291 | 0.205 | | | | | |
| 8 | Perception | 0.254 | 0.180 | | | | | |
| 9 | Intentional modality | 0.248 | 0.175 | | | | | |
| 10 | Subjective norms | 0.198 | 0.140 | | | | | |
| Showing 1 to 10 of 100 entries | | Previous 1 2 | 3 4 5 10 Next | | | | | |

| Value stat | tistics | | | | |
|------------|------------------|----------|-------|-----------------|-------|
| Min: | 0 | Mean: | 0.082 | Lower quartile: | 0.022 |
| Max: | 0.797 | Std.dev: | 0.105 | Median: | 0.054 |
| | | | | Upper quartile: | 0.095 |
| Unscaled | value statistics | | | | |
| Min: | 0 | Mean: | 0.058 | Lower quartile: | 0.015 |
| Max: | 0.563 | Std.dev: | 0.074 | Median: | 0.038 |
| | | | | Unner quartile: | 0.067 |

Back to measure list

Centrality, Eccentricity

The Eccentricity Centrality of a node is the normalized inverse of its maximum distance to any other node. It is highest when the distance to all other nodes is small.

If the node of interest has a higher than normal value (greater than 1 standard deviation(s) above the mean) the row is colored red. The row is green if the node is within 1 standard deviation of the mean. Finally, the row is colored blue if the node has a lower than normal value (less than one standard deviation(s) below the mean).

| Show 10 v entries | | Search: |
|-------------------|-------|---------|
| Rank | Agent | Value |

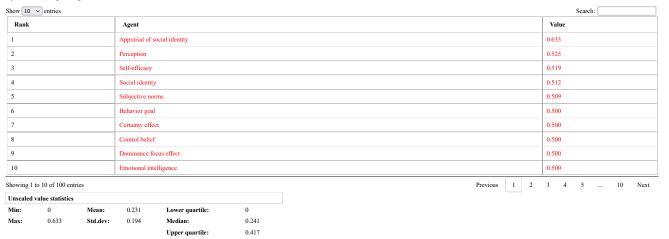
| Rank | | | Agent | | Value | | |
|-----------|------------------|----------|-----------------|-----------------|-------|--------------|---------------|
| 1 | | | Amotivation | | 8 | | |
| 2 | | | Appraisal of s | self-efficacy | | | 8 |
| 3 | | | Autonomous | motivation | | | 8 |
| 4 | | | Certainty effe | et | | | 8 |
| 5 | | | Controlled me | otivation | | | 8 |
| 6 | | | Dominance for | ocus effect | | | 8 |
| 7 | | | Impulsive effe | ect | | | 8 |
| 8 | | | Internalization | n | | | 8 |
| 9 | | | Isolation efec | t | | | 8 |
| 10 | | | Normative be | lief | | | 8 |
| Showing 1 | to 10 of 100 ent | tries | | | | Previous 1 2 | 3 4 5 10 Next |
| Unscaled | value statistics | | | | | | |
| Min: | 0 | Mean: | 5.102 | Lower quartile: | 4 | | |
| Max: | 8 | Std.dev: | 2.738 | Median: | 6 | | |
| | | | | Upper quartile: | 7 | | |

Centrality, Ego Betweenness

The Ego (Network) Betweenness Centrality of node in a network is its betweenness score within its own ego network. The ego network contains the following: the node itself, its immediate neighbor nodes, and all links between them.

If the node of interest has a higher than normal value (greater than 1 standard deviation(s) above the mean) the row is colored red. The row is green if the node is within 1 standard deviation of the mean. Finally, the row is colored blue if the node has a lower than normal value (less than one standard deviation(s) below the mean).

Input network(s): Agent x Agent



Back to measure list

Centrality, Eigenvector

Leaders of strong cliques are individuals or organizations who are collected to others that are themselves highly connected to each other. In other words, if you have a clique then the individual most connected to others in the clique and other cliques, is the leader of the clique. Individuals or organizations who are connected to many otherwise isolated individuals or organizations will have a much lower score in this measure then those that are connected to groups that have many connections themselves. The scientific name of this measure is eigenvector centrality and it is calculated on agent by agent or organization by organization matrices.

If the node of interest has a higher than normal value (greater than 1 standard deviation(s) above the mean) the row is colored red. The row is green if the node is within 1 standard deviation of the mean. Finally, the row is colored blue if the node has a lower than normal value (less than one standard deviation(s) below the mean).

Input network: Agent x Agent (size: 108, density: 0.0267394)

| Show 10 v entries | | | | Search: | | |
|--------------------------------|--------------------------|-------|----------|----------|--|--|
| Rank | Agent | Value | Unscaled | Context* | | |
| 1 | Behavior | 0.785 | 0.555 | -1.728 | | |
| 2 | Arousal | 0.389 | 0.275 | -3.528 | | |
| 3 | Evaluating | 0.363 | 0.257 | -3.647 | | |
| 4 | circumstances | 0.331 | 0.234 | -3.794 | | |
| 5 | Goals | 0.311 | 0.220 | -3.882 | | |
| 6 | Behavior control-ability | 0.298 | 0.211 | -3.943 | | |
| 7 | Self-efficacy | 0.293 | 0.207 | -3.965 | | |
| 8 | Perception | 0.266 | 0.188 | -4.089 | | |
| 9 | Intentional modality | 0.236 | 0.167 | -4.223 | | |
| 10 | Subjective norms | 0.194 | 0.137 | -4.414 | | |
| Showing I to 10 of 100 entries | | | | | | |

* Number of standard deviations from the mean of a random network of the same size and density

| . vannoer v | or sumum devi | account from the fi | cuir or a runa | on network of the same size t | na aciony | | | |
|-------------|------------------|---------------------|----------------|-------------------------------|-----------|-------|-----------------|-------|
| Value stat | istics | | | | | | | |
| Min: | 0 | Mean: | 0.081 | Mean in random netwo | ork: | 1.165 | Lower quartile: | 0.021 |
| Max: | 0.785 | Std.dev: | 0.106 | Std.dev in random netv | work: | 0.220 | Median: | 0.054 |
| | | | | | | | Upper quartile: | 0.090 |
| Unscaled | value statistics | | | | | | | |
| Min: | 0 | Mean: | 0.058 | Lower quartile: | 0.015 | | | |
| Max: | 0.555 | Std.dev: | 0.075 | Median: | 0.038 | | | |
| | | | | Upper quartile: | 0.064 | | | |

Centrality, Exponential Rank

Computes the Exponential Ranking Centrality that defines the centrality of a node as its trustworthiness, which is based on the degree to which other nodes trust it. The link values define initial trust between nodes: positive values indicate trust and negative values distrust (negative link values can be used). This measure is similar to eigenvector centrality.

If the node of interest has a higher than normal value (greater than 1 standard deviation(s) above the mean) the row is colored red. The row is green if the node is within 1 standard deviation of the mean. Finally, the row is colored blue if the node has a lower than normal value (less than one standard deviation(s) below the mean).

Input network(s): Agent x Agent

| Show 10 v | entries | | | | | | | | | | Search: | | |
|----------------|-------------------|----------------------|--------------------|-----------------|-------|-------|-------|------------|----------|-------|---------|----|------|
| Rank | | Agent | Agent | | | Value | | | Unscaled | | | | |
| 1 | | Goals | | | | | 1 | | | 0.010 | | | |
| 2 | | Arousa | Arousal | | | | 0.997 | | | 0.010 | | | |
| 3 | | Percept | Perception | | | | 0.997 | | | 0.010 | | | |
| 4 | | circum | stances | | | | 0.994 | | | 0.010 | | | |
| 5 | | Self-ef | ficacy | | | | 0.991 | | | 0.010 | | | |
| 6 | | Knowle | Knowledge | | | | 0.991 | | | 0.010 | | | |
| 7 | | Intentional modality | | | | | 0.991 | | 0.010 | | | | |
| 8 | | Prospe | ct | | | | 0.988 | | 0.010 | | | | |
| 9 | | Behavi | or control-ability | • | | | 0.985 | | 0.009 | | | | |
| 10 | | Behavi | or | | | | 0.982 | | | 0.009 | | | |
| Showing 1 to 1 | 10 of 100 entries | | | | | | | Previous 1 | 2 | 3 4 | 5 | 10 | Next |
| Value statisti | ics | | | | | | | | | | | | |
| Min: | 0.952 | Mean: | 0.961 | Lower quartile: | 0.955 | | | | | | | | |
| Max: | 1 | Std.dev: | 0.011 | Median: | 0.955 | | | | | | | | |
| | | | | Upper quartile: | 0.964 | | | | | | | | |
| Unscaled value | ue statistics | | | | | | | | | | | | |
| Min: | 0.009 | Mean: | 0.009 | Lower quartile: | 0.009 | | | | | | | | |
| Max: | 0.010 | Std.dev: | 1.100e-04 | Median: | 0.009 | | | | | | | | |
| | | | | Upper quartile: | 0.009 | | | | | | | | |

Back to measure list

Centrality, Hub

A node is hub-central to the extent that its out-links are to nodes that have many in-links. Individuals or organizations that act as hubs are sending information to a wide range of others each of whom has many others reporting to them. Technically, an agent is hub-central if its out-links are to agents that have many other agents sending links to them. The scientific name of this measure is hub centrality and it is calculated on agent by agent matrices.

If the node of interest has a higher than normal value (greater than 1 standard deviation(s) above the mean) the row is colored red. The row is green if the node is within 1 standard deviation of the mean. Finally, the row is colored blue if the node has a lower than normal value (less than one standard deviation(s) below the mean).

Input network(s): Agent x Agent



| Value stat | istics | | | | |
|------------|------------------|----------|-------|-----------------|-----------|
| Min: | 0 | Mean: | 0.037 | Lower quartile: | 0.001 |
| Max: | 1 | Std.dev: | 0.099 | Median: | 0.021 |
| | | | | Upper quartile: | 0.039 |
| Unscaled | value statistics | | | | |
| Min: | 0 | Mean: | 0.028 | Lower quartile: | 9.201e-04 |
| Max: | 0.747 | Std.dev: | 0.074 | Median: | 0.016 |
| | | | | Upper quartile: | 0.029 |

Back to measure list

Centrality, In-Closeness

The closeness of all other nodes to a node in the network. Loosely, In-Closeness Centrality is the inverse of the sum of distances in the network to a node and from all other nodes.

If the node of interest has a higher than normal value (greater than 1 standard deviation(s) above the mean) the row is colored red. The row is green if the node is within 1 standard deviation of the mean. Finally, the row is colored blue if the node has a lower than normal value (less than one standard deviation(s) below the mean).

| Show 10 v entries | Search: | | |
|-------------------|----------------------|-----------|-----------|
| Rank | Agent | Value | Unscaled |
| 1 | Bodily Disposition | 7.248e-04 | 6.774e-06 |
| 2 | Disposition | 7.206e-04 | 6.735e-06 |
| 3 | Mental disposition | 7.189e-04 | 6.719e-06 |
| 4 | Belief | 7.168e-04 | 6.699e-06 |
| 5 | mental process | 7.166e-04 | 6.698e-06 |
| 6 | Motivation | 7.147e-04 | 6.680e-06 |
| 7 | Direct consciousness | 7.146e-04 | 6.679e-06 |
| 8 | Capability | 7.143e-04 | 6.675e-06 |

| Rank | | Agent | t | | |
|--------------|-------------------|----------|-----------|-----------------|-----------|
| 9 | | Learnir | ng | | |
| 10 | | Persiste | ence | | |
| Showing 1 to | 0 10 of 100 entri | es | | | |
| Value statis | stics | | | | |
| Min: | 5.787e-04 | Mean: | 6.941e-04 | Lower quartile: | 7.101e-04 |
| Max: | 7.248e-04 | Std.dev: | 4.457e-05 | Median: | 7.104e-04 |
| | | | | Upper quartile: | 7.107e-04 |
| Unscaled v | alue statistics | | | | |
| Min: | 5.408e-06 | Mean: | 6.487e-06 | Lower quartile: | 6.636e-06 |
| Max: | 6.774e-06 | Std.dev: | 4.165e-07 | Median: | 6.639e-06 |

Centrality, In-Degree

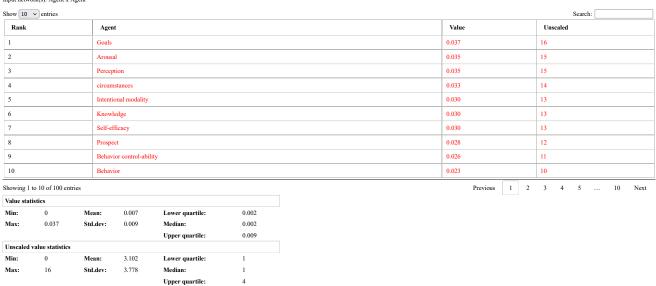
The number of links directed into a node normalized by the maximum number of such links. This measure is also called Column Degree Centrality because it is computed by taking the sum of the column values in the input network.

6.643e-06

Upper quartile:

If the node of interest has a higher than normal value (greater than 1 standard deviation(s) above the mean) the row is colored red. The row is green if the node is within 1 standard deviation of the mean. Finally, the row is colored blue if the node has a lower than normal value (less than one standard deviation(s) below the mean).

Input network(s): Agent x Agent



Back to measure list

Centrality, In-Inverse Closeness

The average closeness of a node to the other nodes in a network considering only paths emanating out from a node. Inverse Closeness is the sum of the inverse distances between a node and all other nodes.

If the node of interest has a higher than normal value (greater than 1 standard deviation(s) above the mean) the row is colored red. The row is green if the node is within 1 standard deviation of the mean. Finally, the row is colored blue if the node has a lower than normal value (less than one standard deviation(s) below the mean).

Input network(s): Agent x Agent

| Show 10 v entries | | | Search: |
|--------------------------------|--------------------|--------------|---------------|
| Rank | Agent | Value | Unscaled |
| 1 | Goals | 0.348 | 37.283 |
| 2 | Arousal | 0.348 | 37.217 |
| 3 | Prospect | 0.346 | 37.067 |
| 4 | circumstances | 0.346 | 37.067 |
| 5 | Behavior | 0.342 | 36.567 |
| 6 | Knowledge | 0.342 | 36.567 |
| 7 | Mental disposition | 0.339 | 36.250 |
| 8 | Perception | 0.332 | 35.517 |
| 9 | Belief | 0.330 | 35.317 |
| 10 | Motivation | 0.329 | 35.150 |
| Showing 1 to 10 of 100 entries | | Previous 1 2 | 3 4 5 10 Next |

| _ | | | | | |
|------------|------------------|----------|--------|-----------------|--------|
| Value stat | tistics | | | | |
| Min: | 0 | Mean: | 0.208 | Lower quartile: | 0.184 |
| Max: | 0.348 | Std.dev: | 0.094 | Median: | 0.229 |
| | | | | Upper quartile: | 0.259 |
| Unscaled | value statistics | | | | |
| Min: | 0 | Mean: | 22.304 | Lower quartile: | 19.718 |
| Max: | 37.283 | Std.dev: | 10.025 | Median: | 24.492 |
| | | | | | |

Upper quartile:

27.750

Back to measure list

Centrality, Information

Calculates the Stephenson and Zelen information centrality measure for each node.

If the node of interest has a higher than normal value (greater than 1 standard deviation(s) above the mean) the row is colored red. The row is green if the node is within 1 standard deviation of the mean. Finally, the row is colored blue if the node has a lower than normal value (less than one standard deviation(s) below the mean).

Input network(s): Agent x Agent

| Show 10 v entries | Show 10 v entries | | | | | | |
|--------------------------------|--------------------------|--------------|---------------|--|--|--|--|
| Rank | Agent | Value | Unscaled | | | | |
| 1 | Behavior | 0.020 | 1.914 | | | | |
| 2 | Arousal | 0.018 | 1.744 | | | | |
| 3 | Behavior control-ability | 0.018 | 1.718 | | | | |
| 4 | Evaluating | 0.018 | 1.715 | | | | |
| 5 | Behavioral schemata | 0.018 | 1.662 | | | | |
| 6 | Threat appraisal | 0.018 | 1.662 | | | | |
| 7 | Goals | 0.018 | 1.655 | | | | |
| 8 | Self-efficacy | 0.017 | 1.641 | | | | |
| 9 | Coping appraisal | 0.017 | 1.632 | | | | |
| 10 | Perception | 0.017 | 1.607 | | | | |
| Showing 1 to 10 of 100 entries | | Previous 1 2 | 3 4 5 10 Next | | | | |

Showing 1 to 10 of 100 entries Value statistics 0.009 0.007 Min: Mean: Lower quartile: 0.020 Std.dev: 0.005 Median: 0.009 Max: Upper quartile: 0.013 Unscaled value statistics 0.875 0.672 Lower quartile: Min: Mean: 1.914 0.492 0.810 Max: Std.dev: Median: Upper quartile: 1.227

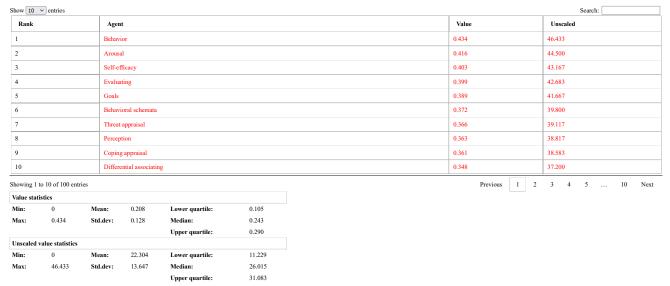
Back to measure list

Centrality, Inverse Closeness

The average closeness of a node to the other nodes in a network (also called out-inverse closeness centrality). Inverse Closeness is the average inverse distance from a node and to all other nodes.

If the node of interest has a higher than normal value (greater than 1 standard deviation(s) above the mean) the row is colored red. The row is green if the node is within 1 standard deviation of the mean. Finally, the row is colored blue if the node has a lower than normal value (less than one standard deviation(s) below the mean).

Input network(s): Agent x Agent



Back to measure list

Centrality, Katz

Value statistics

Min:

0.128

Lower quartile:

Mean:

This computes the centrality of each entity based on the centrality of its neighbors. Alpha should be chosen such that its absolute value is less than the reciprocal of the largest eigenvalue of N.

0.037

If the node of interest has a higher than normal value (greater than 1 standard deviation(s) above the mean) the row is colored red. The row is green if the node is within 1 standard deviation of the mean. Finally, the row is colored blue if the node has a lower than normal value (less than one standard deviation(s) below the mean).

| Show 10 v entries | Search: | | | | | |
|--|--------------------------|-------|----------|--|--|--|
| Rank | Agent | Value | Unscaled | | | |
| 1 | Arousal | 0.639 | 1 | | | |
| 2 | circumstances | 0.626 | 0.979 | | | |
| 3 | Perception | 0.590 | 0.922 | | | |
| 4 | Goals | 0.559 | 0.875 | | | |
| 5 | Self-efficacy | 0.537 | 0.840 | | | |
| 6 | Prospect | 0.514 | 0.804 | | | |
| 7 | Knowledge | 0.470 | 0.735 | | | |
| 8 | Behavior control-ability | 0.462 | 0.723 | | | |
| 9 | Intentional modality | 0.437 | 0.683 | | | |
| 10 | Behavior | 0.406 | 0.634 | | | |
| Showing 1 to 10 of 100 entries Previous 1 2 3 4 5 10 | | | | | | |

| Max: | 0.639 | Std.dev: | 0.151 | Median: | 0.059 |
|----------|------------------|----------|-------|-----------------|-------|
| | | | | Upper quartile: | 0.157 |
| Unscaled | value statistics | | | | |
| Min: | 0 | Mean: | 0.200 | Lower quartile: | 0.057 |
| Max: | 1 | Std.dev: | 0.237 | Median: | 0.092 |
| | | | | Unner quartile: | 0.246 |

Centrality, Out-Degree

For any node, e.g. an individual or a resource, the out-links are the connections that the node of interest has to other nodes. For example, imagine an agent by knowledge network where the number of out-links an agent would have is the number of pieces of knowledge it is connected to. The scientific name of this measure is out-degree and it can be calculated on any network.

If the node of interest has a higher than normal value (greater than 1 standard deviation(s) above the mean) the row is colored red. The row is green if the node is within 1 standard deviation of the mean. Finally, the row is colored blue if the node has a lower than normal value (less than one standard deviation(s) below the mean).

Input network(s): Agent x Agent

| Show 10 v entries | Show 10 v entries | | | | | | |
|--------------------------------|--------------------------|--------------|---------------|--|--|--|--|
| Rank | Agent | Value | Unscaled | | | | |
| 1 | Behavior | 0.119 | 51 | | | | |
| 2 | Arousal | 0.037 | 16 | | | | |
| 3 | Evaluating | 0.030 | 13 | | | | |
| 4 | Behavior control-ability | 0.028 | 12 | | | | |
| 5 | Self-efficacy | 0.026 | 11 | | | | |
| 6 | Behavioral schemata | 0.023 | 10 | | | | |
| 7 | Perception | 0.023 | 10 | | | | |
| 8 | Threat appraisal | 0.023 | 10 | | | | |
| 9 | Coping appraisal | 0.021 | 9 | | | | |
| 10 | Goals | 0.021 | 9 | | | | |
| Showing 1 to 10 of 100 entries | | Previous 1 2 | 3 4 5 10 Next | | | | |

Showing 1 to 10 of 100 entries Value statistics Min: 0.007 Lower quartile: 0.002 0.004 Max: 0.119 Std.dev: 0.013 Median: Upper quartile: 0.008 Unscaled value statistics 3.102 Lower quartile: Mean: Max: 51 Std.dev: 5.549 Median: 1.500

Upper quartile:

3.500

Back to measure list

Centrality, PageRank

Calculates the importance of a node based on the importance of its in-coming neighbors. The input network links are normalized and interpreted as the probability of a transition from node i to node j. The PageRank of a node can be interpreted as the fraction of times a node would be visited when traversing the network according to the network of probabilities.

If the node of interest has a higher than normal value (greater than 1 standard deviation(s) above the mean) the row is colored red. The row is green if the node is within 1 standard deviation of the mean. Finally, the row is colored blue if the node has a lower than normal value (less than one standard deviation(s) below the mean).

Input network(s): Agent x Agent



Back to measure list

Centrality, Radiality

The Radiality Centrality of a node is the normalized sum of its closeness to all other nodes. The closeness of a node u to another node v is the network diameter minus the shortest path distance from u to v.

If the node of interest has a higher than normal value (greater than 1 standard deviation(s) above the mean) the row is colored red. The row is green if the node is within 1 standard deviation of the mean. Finally, the row is colored blue if the node has a lower than normal value (less than one standard deviation(s) below the mean).

| Show 10 v entries | | | | | | |
|-------------------|----------------------|-------|----------|--|--|--|
| Rank | Agent | Value | Unscaled | | | |
| 1 | Threat appraisal | 0.884 | 40,757 | | | |
| 2 | Maladaptive response | 0.874 | 40,289 | | | |
| 3 | Distal goal | 0.873 | 40,265 | | | |
| 4 | Learning goal | 0.873 | 40,265 | | | |
| 5 | Participating goal | 0.873 | 40,265 | | | |

| | | | | | | | | T | | | | | | | | |
|------------|-----------------|----------|-----------|-----------------|-------|--|-------|----------|-------|--------|---|--------|----------|--|--|--|
| Rank | | Ager | Agent | | | | | | Value | | | | Unscaled | | | |
| 6 | | Proxin | nal goal | | | | 0.873 | | | 40,265 | | | | | | |
| 7 | | Gains | | | | | 0.872 | | | 40,227 | | | | | | |
| 8 | | Losses | Losses | | | | | | 0.872 | | | 40,227 | | | | |
| 9 | | descrip | tive norm | | | | 0.871 | | | 40,175 | | | | | | |
| 10 | | Isolati | on efect | | | | 0.871 | | | 40,145 | | | | | | |
| Showing 1 | to 10 of 100 en | tries | | | | | 1 | Previous | 1 2 | 3 4 | 5 | | 10 | | | |
| Value stat | tistics | | | | | | | _ | | | | | | | | |
| Min: | 0 | Mean: | 0.651 | Lower quartile: | 0.449 | | | | | | | | | | | |
| Max: | 0.884 | Std.dev: | 0.372 | Median: | 0.863 | | | | | | | | | | | |

Min:

Centrality, Total-Degree

Unscaled value statistics

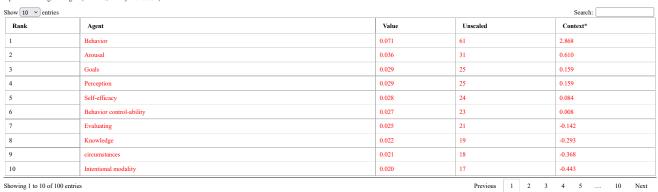
0

40,757

Individuals or organizations who are 'in the know' are those who are linked to many others and so, by virtue of their position have access to the ideas, thoughts, beliefs of many others. Individuals who are 'in the know' are identified by degree centrality in the relevant social network. Those who are ranked high on this metrics have more connections to others in the same network. The scientific name of this measure is total degree centrality and it is calculated on the agent by agent matrices.

If the node of interest has a higher than normal value (greater than 1 standard deviation(s) above the mean) the row is colored red. The row is green if the node is within 1 standard deviation of the mean. Finally, the row is colored blue if the node has a lower than normal value (less than one standard deviation(s) below the mean).

Input network: Agent x Agent (size: 108, density: 0.0267394)



* Number of standard deviations from the mean of a random network of the same size and density



Upper quartile:

Lower quartile:

Upper quartile:

Median:

30,005,667

17,132.878

0.865

20,714.500

39,819

39,888

Back to measure list

Multi-network measures

These measures take as input multiple networks from the meta-network.

Agent-Level Measures

These measures take as input multiple networks from the meta-network, and produced a vector of values, one value for each Agent node.



Showing 0 to 0 of 0 entries

Produced by ORA, a joint product of the CASOS center at Carnegie Mellon University and Netanomics