

COMPLEX SYSTEMS AND NETWORK SCIENCE FOR PREVENTION AND CONTROL OF NONCOMMUNICABLE DISEASES

A WHO COLLABORATING CENTRE FOR RESEARCH AND TRAINING

Stakeholder Network Analysis

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> Workshop – Introduction to Stakeholder Network Analysis Global Network for Age-friendly Cities and Communities October 2024



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Survey Tool and Network Analysis

Creating and completing a simple survey Survey analysis

Creating people and organisations

Creating a network survey Network analysis (examples of brokerage, closure, isolation)

Simple Surveys



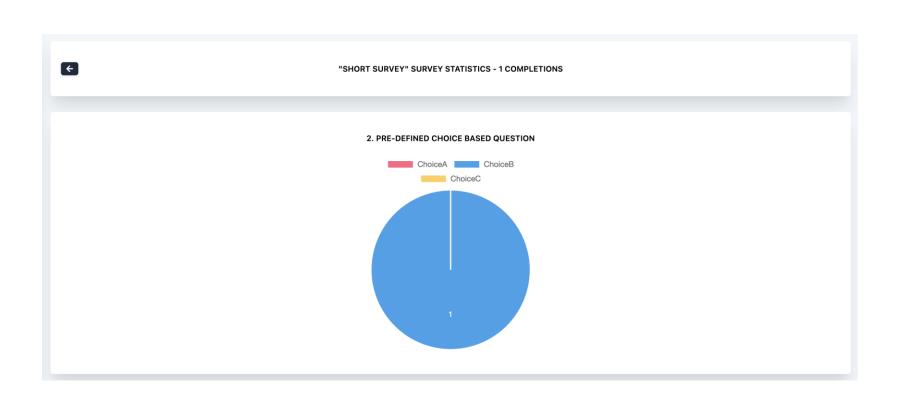
COMPLEX SYSTEMS AND NETWORK SCIENCE FOR PREVENTION AND CONTROL OF NONCOMMUNICABLE DISEASES

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| Single Input | Short Survey | | General |
| Checkbox | Description | [LOGO] | Title |
| Radiogroup | | | Short Survey |
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| Comment | Description | | Description |
| Rating | | | |
| Ranking | 1. Text based question | | <i>*</i> |
| Image picker | | | Show/hide title |
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| 🎢 Signature pad | 2. Pre-defined choice based question | | edit display |
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Simple Surveys



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People and Groups



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| ← | | EDIT PERSON GROUP | |
|------------------|-------------|----------------------|---------|
| NAME * | | | |
| Hollywood Movies | | | |
| | | UPDATE | |
| People | | | |
| FIRST NAME | SECOND NAME | COMMENT [▲] | ACTIONS |
| Tom | Hanks | Forrest Gump | |
| Brad | Pitt | Fight Club | |
| Matt | Damon | Good Will Hunting | |
| Anne | Hathaway | The Dark Knight | |
| Christian | Bale | The Dark Knight | |

Organisations and Groups



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| NAME * | | | | | | | |
|--|--------|---------------|---------|--|--|--|--|
| WHO Health Demo | | | | | | | |
| | UPDATE | | | | | | |
| | | | | | | | |
| Organisations | | | | | | | |
| NAME A | URL A | DESCRIPTION A | ACTIONS | | | | |
| Global Institute for Noncommunicable Disease Research | | Health Demo | Î | | | | |
| National Center for Chronic Disease Prevention | | Health Demo | Ī | | | | |
| Federal Office for NCD Management and Control | | Health Demo | Ī | | | | |
| Ministry of Noncommunicable Disease Health Initiatives | | Health Demo | Ī | | | | |
| Agency for Chronic Health Conditions and Wellness | | Health Demo | Ī | | | | |

Network Analysis Terms



COMPLEX SYSTEMS AND NETWORK SCIENCE FOR PREVENTION AND CONTROL OF NONCOMMUNICABLE DISEASES

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Isolates (disconnected): Nodes with no connections to other nodes in the network.

Brokerage: The role of a node that connects otherwise disconnected groups within the network.

Closure: The degree to which nodes in a network are interconnected, leading to tightly-knit groups or clusters.

Betweenness Centrality: A measure of how often a node appears on the shortest paths between other nodes, indicating its potential influence over the flow of information.

Degree Centrality: The number of direct connections a node has. High degree centrality indicates a node with many connections.

Closeness Centrality: A measure of how close a node is to all other nodes in the network, based on the shortest paths. Nodes with high closeness centrality can quickly interact with all other nodes.

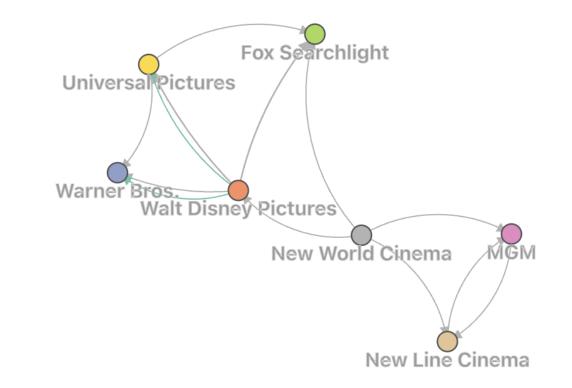
Network Analysis



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2. WHICH STUDIO DO YOU WORK WITH?



— Drama — Fantasy

Example of brokerage, but do we have the full picture?

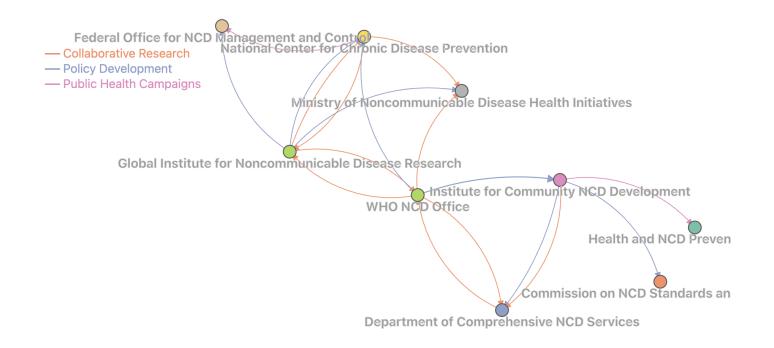
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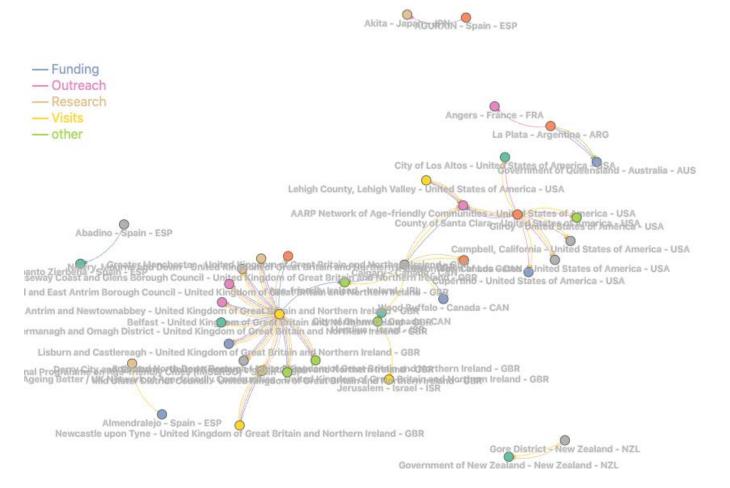
Another example of brokerage, with some examples of closure.

Network Analysis



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Some brokerage. Closure? Betweenness? (Star example). Examples of isolates.