Social Network Analysis software: A list

Description

A. Software I have some familiarity with:

UCINET & NetDraw (a combined package)

- Easy to import data from Excel
- Has a huge range of abilities to manipulate and edit the raw data
- Has an online support group (Yahoo Groups)
- There is a detailed how to use it text
- Files can be read by many other software packages
- Not very expensive, and there is a free trial period
- Undergoing continuous development
- Widely used
- Not easy to draw network diagrams on screen
- Steep learning curve, many more bells and whistles than you may need
- No easy to use introductory texts
- Not easy to edit node and link attribute data on the NetDraw screen
- PS: See Louse Clark's very useful and detailed guide to working with NetDraw; and "<u>A Brief</u> <u>Guide to Using NetDraw</u>" by Steve Borgatti; and <u>NETDRAW – BASIC A Practical Guide to</u> <u>Visualising Social Networks</u> by ONA Surveys

Visualyzer

- Perhaps my favorite, beause it is easy to draw and edit networks on screen, which is very useful in workshop settings
- Attributes of nodes and links can be easily edited and displayed
- Can import and export UCINET data
- Very user-friendly manual
- Free trial period
- Now available at a more reasonable price!
- No online support group
- Does not seem to be undergoing continuous development

yED Graph Editor

- Very good for network drawing
- Many options for layouts
- Can export files to work as web pages
- Nodes can include weblinks, allowing quick access to much more information about each node
- Free

Tweet

- Latest version (3.5) can now open data from Excel worksheets, in matrix, edgelist (relationships) and nodelist (actors) forms. Including as many attributes for the actors and relationships as needed. It seems it will import both one and two mode (adjacency and affiliation) matrices. This is a major improvement.
- They are working on capacity to export back to Excel, and ability to search actors and relationships by attribute. Both will be very useful
- yED is rapidly moving up my list of most favored SNA software packages
- Now also available as an online version: <u>yED Live</u>
- Limited analysis capacity

Microsoft NodeXL

- Free, works as a plug-in to Excel 2007
- Undergoing continuous development
- Online support group
- All node and link attribute data is visible and easy to edit in Excel sheets, which is great
- Nodes can include weblinks, I think
- There is a <u>useful users guide here</u>
- You can't draw the network direct on the screen,
 - But by using the Excel sheet immediately below the screen you can add nodes and links, and edit their attributes, very easily
- I have had difficulty in importing yEd (GraphML)
 - $\,\circ\,$ PS: They report this is being addressed
- The layout options (different algorithms) seem quite limited
- I dont yet know as much about it as the other packages above

C-IKNOW

- I attended a presentation on C-IKNOW at the 2010 INSNA conference and found this package very impressive, for two broad reasons:
 - User-friendliness
 - Sophisticated range of capacities
- This is an online service that is open to use by anyone, free of charge
- Data can be imported, exported and generated by an associated online survey mechanisms
- There are multiple videos showing how different aspects of the package works, along with a detailed downloadable user guide
- Development is ongoing and led by Noshir Contactor, a very smart person, and co-author of Theories of Communication Networks
- "As of September 2012, C-IKNOW Survey is no longer under active development. It can still be used, but no support is available. It should be used at your own risk"

Discourse Network Analyzer

- "software which combines social network analysis and category-based content analysis. After applying categories to text portions, you can automatically extract two-mode networks or one-mode co-occurrence networks in several file formats. There are also some algorithms for longitudinal analysis."
- Exports to Excel (in CSV format), Â DL files (UCINET), and GraphML files (visone, yEd etc)

- Free
- Looks useful but I have yet to try it out on my own data

Visone

- Patrick Kenis describes this as "very intuitive programme which can be used instantly in consultancy settings"
- Free
- Easy to draw networks live on screen
- Continuous development, but not so often as UCINET

Gephi (last comments added 21 April 2011)

- Open source (free)
- Undergoing continuous development, but not so often as UCINET
- Very sophisticated graphics, the emphasis is on visualisation as a means of exploratory data analysis
- Capable of visualising very large networks quickly
- Dynamic views of networks, as they change over time
- Many filtering options
- As in NodeXL, has a Data Table view to browse and edit data
- Drawing networks on the screen is possible, but not so intuitive
- Imports GraphML files (e.g. as used by yED, NodeXL), vna (as used by Netdraw), csv (used by Excel etc). Exports as csv (for Excel etc) and GraphML.
- Has Plugins e.g. Social Network Data Import
- · Looks like it could become very good, in time

<u>KUMU</u>

- Very impressive network diagramming capacity
- Lots of capacity to annotate network diagrams
- Online network visualiation tool
- Free and paid for subscriptions
- Good tutorial material and technical support

Others not yet examined in any detail

Inflow:Â [Not yet tested, but looks good]

Social Networks Visualizer (SocNetV)Â [Not yet tested, but used by Valdis Krebs]

Cytoscape Thomas Delahais says: "I've been using consistently Cytoscape, which was designed for neuro-biological analysis but works very well for social sciences! Cytoscape is free, opensource and you should complete it with the Max Planck Analyser Plugin, which includes all or mostof the usual indicators (diameter, shortest path, etc.) in a unique interface (free for non-commercialuse if I remember well). Cytoscape needs some formatting first but then it is very easy to use, veryeasy to draw on screen too. As a sidenote this is the software I picked when I decided that Ucinetwas too complicated for transferring this competency to my colleagues"

<u>SocioWorks</u> "is an innovative set of web tools for the online application of Social Network Analysis (SNA) methods to collect and analyze data regarding social relationships, from individual to institution to national levels." (posted 2013 05 02)

B. Lists of software most of which I dont know about, maintained by:

- 1. KM4DEV list
- 2. Wikipedia list
- 3. International Network for Social Network Analysis list
- 4. Top 10 Open-Source Social network Development Platforms
- 5. Mark Round's "SNA Tools and Formats diagram updated" showing how different software packages are linked by use of the same data formats
 See also the NetWiki on Data Formats

The number of social network analysis packages is exploding, a bit like the <u>Cambrian explosion</u> of organic life. No software package has yet achieved dominance because of its ability to meet a wide variety of needs.

C. Online SNA software

 <u>IdeaTree</u> was not developed as SNA software, but in practice provides many of the same functions, in terms of visualisation. Key features: (a) it supports online collaborative development of network diagrams, (b) it seems quite user friendly, (c) data can be exported in XML, which can be <u>converted elsewhere into graphml</u>, and as pdf documents

PS April 2011: GraphML is a format for storing network data, used by yED, Gephi, and others. <u>The GraphML Primer</u> provides a simple introduction to its use.

Category

- 1. Lists of sources re ...
- 2. Software

Tags

- 1. Networks
- 2. software

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