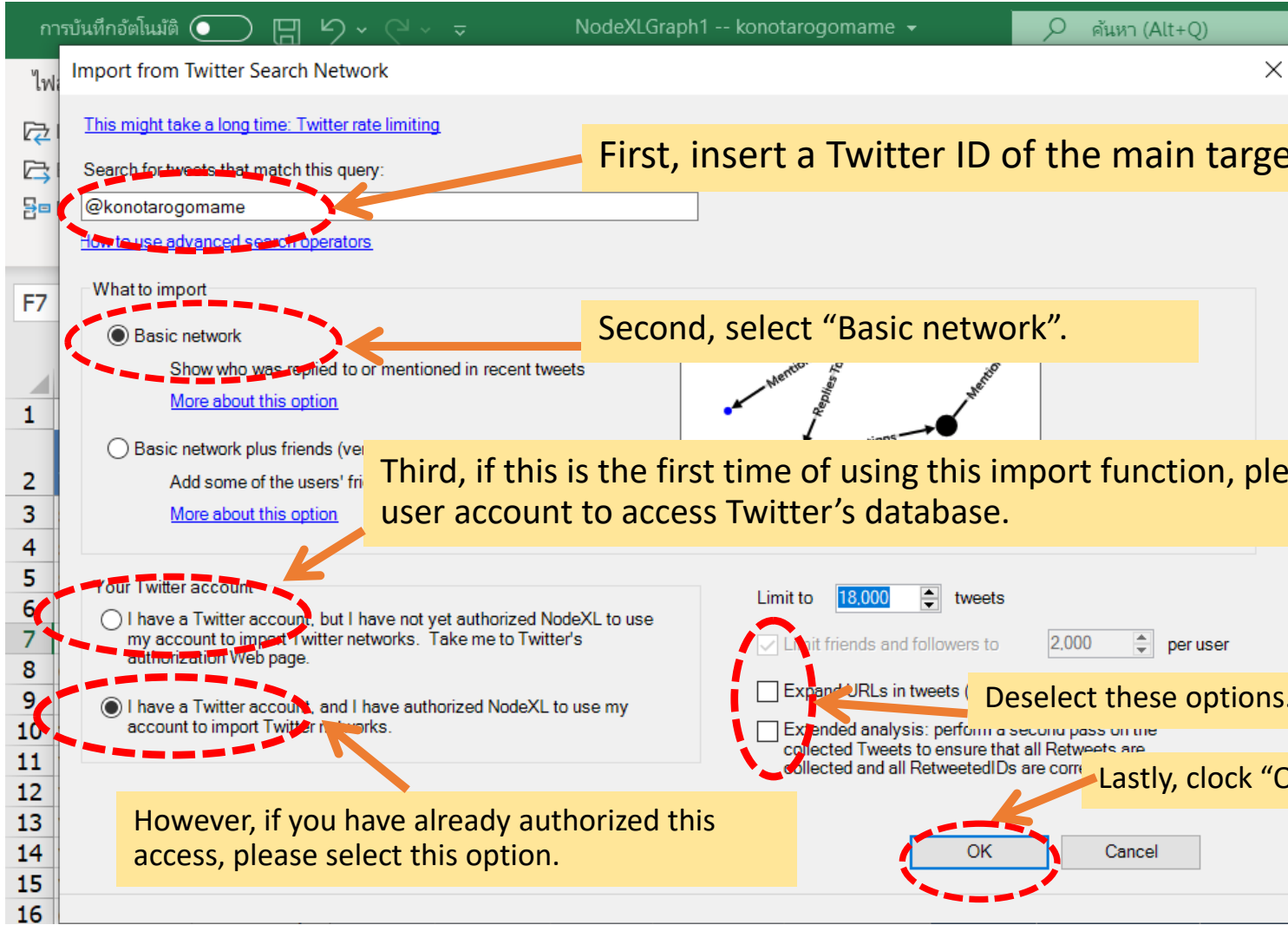


Social Network Analysis of Twitter User – using NodeXL

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1. Importing data from Twitter



First, insert a Twitter ID of the main target.

Second, select "Basic network".

Third, if this is the first time of using this import function, please authorize NodeXL to use your Twitter user account to access Twitter's database.

However, if you have already authorized this access, please select this option.

Deselect these options.

Lastly, click "OK" button.

Downloading process might take 10 – 60 minutes depending on the total number of messages sent and shared. The obtained data is automatically arranged in a spreadsheet format shown below.

Vertex	Vertex	Color	Width	Style	Opacity	Visibility	Label	Label Text Color	Label Font Size	Other Columns	Relationship	Date (UTC)	Tweet	URLs in Tweet	Domains in Tweet	Hashtags in Tweet	Media in Tweet	Tweet Image File	Tweet Date (UTC)	Date	Time	Twitter Page for Tweet	Latitude	Longitude
suika0109	konotarogoname									MentionsInRe	11/9/2021 0:33	@konosaisaen @konotarogomame	国民がこれだ!	https://pbs.twimg.com/media/...				https://pbs.twimg.com/media/...	11/9/2021 0:33	11/9/2021	00:33:5	https://twitter.com/suika0109/status/1436...		
suika0109	seighakatta									Retweet	11/9/2021 0:33	@konosaisaen @konotarogomame	国民がこれだ!	https://pbs.twimg.com/media/...				https://pbs.twimg.com/media/...	11/9/2021 0:33	11/9/2021	00:33:5	https://twitter.com/suika0109/status/1436...		
suika0109	konosaisaen									Replies to	11/9/2021 0:33	@konosaisaen @konotarogomame	国民がこれだ!	https://pbs.twimg.com/media/...				https://pbs.twimg.com/media/...	11/9/2021 0:33	11/9/2021	00:33:5	https://twitter.com/suika0109/status/1436...		
keisukenarur	konotarogoname									Retweet	11/9/2021 0:34	@konotarogomame	総裁選 ドリアン喰って いざ、出陣 http	https://pbs.twimg.com/media/...				https://pbs.twimg.com/media/...	11/9/2021 0:34	11/9/2021	00:34:5	https://twitter.com/keisukenarur/status/1436...		
harumor	konotarogoname									Replies to	11/9/2021 0:34	@konotarogomame	日本のために頑張ってください!!	https://pbs.twimg.com/media/...				https://pbs.twimg.com/media/...	11/9/2021 0:34	11/9/2021	00:34:5	https://twitter.com/harumor/status/1436...		
dreventus	konotarogoname									Retweet	11/9/2021 0:35	@konotarogomame	総裁選 ドリアン喰って いざ、出陣 http	https://pbs.twimg.com/media/...				https://pbs.twimg.com/media/...	11/9/2021 0:35	11/9/2021	00:35:1	https://twitter.com/dreventus/status/1436...		
yuminnie_r	konotarogoname									Retweet	11/9/2021 0:35	@konotarogomame	総裁選 ドリアン喰って いざ、出陣 http	https://pbs.twimg.com/media/...				https://pbs.twimg.com/media/...	11/9/2021 0:35	11/9/2021	00:35:2	https://twitter.com/yuminnie_mouse/status/1436...		
toshi_m90lv	konotarogoname									Replies to	11/9/2021 0:35	@konotarogomame	フォローしました! 応援してます!	https://pbs.twimg.com/media/...				https://pbs.twimg.com/media/...	11/9/2021 0:35	11/9/2021	00:35:2	https://twitter.com/toshi_m90lv/status/1436...		
yakd6l5amig	konotarogoname									Mentions	10/9/2021 16:51	@konosaisaen	https://twitter.com	https://pbs.twimg.com/media/...				https://pbs.twimg.com/media/...	10/9/2021 16:51	10/9/2021	16:51:3	https://twitter.com/yakd6l5amig/status/1436...		
yakd6l5amig	konosaisaen									Replies to	10/9/2021 16:51	@konosaisaen	https://twitter.com	https://pbs.twimg.com/media/...				https://pbs.twimg.com/media/...	10/9/2021 16:51	10/9/2021	16:51:3	https://twitter.com/yakd6l5amig/status/1436...		
vixxmaple	yakd6l5amig									Retweet	11/9/2021 0:35	@konosaisaen	https://twitter.com	https://pbs.twimg.com/media/...				https://pbs.twimg.com/media/...	11/9/2021 0:35	11/9/2021	00:35:2	https://twitter.com/vixxmaple/status/1436...		
vixxmaple	konotarogoname									MentionsInRe	11/9/2021 0:35	@konosaisaen	https://twitter.com	https://pbs.twimg.com/media/...				https://pbs.twimg.com/media/...	11/9/2021 0:35	11/9/2021	00:35:2	https://twitter.com/vixxmaple/status/1436...		
vixxmaple	konosaisaen									Replies to	11/9/2021 0:35	@konosaisaen	https://twitter.com	https://pbs.twimg.com/media/...				https://pbs.twimg.com/media/...	11/9/2021 0:35	11/9/2021	00:35:2	https://twitter.com/vixxmaple/status/1436...		
chomucruise	konotarogoname									Retweet	11/9/2021 0:35	@konotarogomame	総裁選 ドリアン喰って いざ、出陣 http	https://pbs.twimg.com/media/...				https://pbs.twimg.com/media/...	11/9/2021 0:35	11/9/2021	00:35:3	https://twitter.com/chomucruise/status/1436...		
trumpetaro	konotarogoname									Replies to	11/9/2021 0:35	@konotarogomame	是非、ドリアンとセットにザボンも	https://pbs.twimg.com/media/...				https://pbs.twimg.com/media/...	11/9/2021 0:35	11/9/2021	00:35:4	https://twitter.com/trumpetaro/status/1436...		
onee_reside	konotarogoname									Retweet	11/9/2021 0:35	@konotarogomame	総裁選 ドリアン喰って いざ、出陣 http	https://pbs.twimg.com/media/...				https://pbs.twimg.com/media/...	11/9/2021 0:35	11/9/2021	00:35:4	https://twitter.com/onee_resident/status/1436...		
mrskkk93	konotarogoname									Retweet	11/9/2021 0:36	@konotarogomame	地こ足を	https://pbs.twimg.com/media/...				https://pbs.twimg.com/media/...	11/9/2021 0:36	11/9/2021	00:36:0	https://twitter.com/mrskkk93/status/1436...		
soh11ctmq4	konotarogoname									Mentions	11/9/2021 0:36	@konosaisaen @konotarogomame	皆さん、誰がどうせ韓国	https://pbs.twimg.com/media/...				https://pbs.twimg.com/media/...	11/9/2021 0:36	11/9/2021	00:36:2	https://twitter.com/soh11ctmq4t6v6k/status/1436...		
soh11ctmq4	konosaisaen									Replies to	11/9/2021 0:36	@konosaisaen @konotarogomame	皆さん、誰がどうせ韓国	https://pbs.twimg.com/media/...				https://pbs.twimg.com/media/...	11/9/2021 0:36	11/9/2021	00:36:2	https://twitter.com/soh11ctmq4t6v6k/status/1436...		
japanesebes	konotarogoname									Mentions	11/9/2021 0:36	@konosaisaen @konotarogomame	あまり人を莫測にしたよ	https://pbs.twimg.com/media/...				https://pbs.twimg.com/media/...	11/9/2021 0:36	11/9/2021	00:36:3	https://twitter.com/japanesebest/status/1436...		
japanesebes	konosaisaen									Replies to	11/9/2021 0:36	@konosaisaen @konotarogomame	あまり人を莫測にしたよ	https://pbs.twimg.com/media/...				https://pbs.twimg.com/media/...	11/9/2021 0:36	11/9/2021	00:36:3	https://twitter.com/japanesebest/status/1436...		
tyt8765	konotarogoname									Mentions	11/9/2021 0:36	@konosaisaen @konotarogomame	運輸関係の法令の見直し	https://pbs.twimg.com/media/...				https://pbs.twimg.com/media/...	11/9/2021 0:36	11/9/2021	00:36:3	https://twitter.com/tyt8765/status/1436...		
tyt8765	konosaisaen									Replies to	11/9/2021 0:36	@konosaisaen @konotarogomame	運輸関係の法令の見直し	https://pbs.twimg.com/media/...				https://pbs.twimg.com/media/...	11/9/2021 0:36	11/9/2021	00:36:3	https://twitter.com/tyt8765/status/1436...		
fkawarasaki	konotarogoname									Replies to	11/9/2021 0:36	@konotarogomame	公約や信念は貫いて下さい	https://pbs.twimg.com/media/...				https://pbs.twimg.com/media/...	11/9/2021 0:36	11/9/2021	00:36:4	https://twitter.com/fkawarasaki/status/1436...		
llysince2021	konotarogoname									Mentions	11/9/2021 0:36	@konosaisaen @konotarogomame	そして、どうかワクチン	https://pbs.twimg.com/media/...				https://pbs.twimg.com/media/...	11/9/2021 0:36	11/9/2021	00:36:5	https://twitter.com/llysince2021/status/1436...		
llysince2021	konosaisaen									Replies to	11/9/2021 0:36	@konosaisaen @konotarogomame	そして、どうかワクチン	https://pbs.twimg.com/media/...				https://pbs.twimg.com/media/...	11/9/2021 0:36	11/9/2021	00:36:5	https://twitter.com/llysince2021/status/1436...		
yellowmonke	konotarogoname									Replies to	11/9/2021 0:36	@konotarogomame	ユーザーのブロック機能の権利も理解	https://pbs.twimg.com/media/...				https://pbs.twimg.com/media/...	11/9/2021 0:36	11/9/2021	00:36:5	https://twitter.com/yellowmonkey/status/1436...		
kakusei2017	konotarogoname									MentionsInRe	11/9/2021 0:35	@konosaisaen @konotarogomame	皇統を護ってください	https://pbs.twimg.com/media/...				https://pbs.twimg.com/media/...	11/9/2021 0:35	11/9/2021	00:35:5	https://twitter.com/kakusei2017/status/1436...		
kakusei2017	toru_1979									Retweet	11/9/2021 0:35	@konosaisaen @konotarogomame	皇統を護ってください	https://pbs.twimg.com/media/...				https://pbs.twimg.com/media/...	11/9/2021 0:35	11/9/2021	00:35:5	https://twitter.com/kakusei2017/status/1436...		
kakusei2017	konosaisaen									Replies to	11/9/2021 0:35	@konosaisaen @konotarogomame	皇統を護ってください	https://pbs.twimg.com/media/...				https://pbs.twimg.com/media/...	11/9/2021 0:35	11/9/2021	00:35:5	https://twitter.com/kakusei2017/status/1436...		
kakusei2017	konotarogoname									MentionsInRe	11/9/2021 0:35	@konosaisaen @konotarogomame	河野太郎プロ	https://pbs.twimg.com/media/...				https://pbs.twimg.com/media/...	11/9/2021 0:35	11/9/2021	00:35:5	https://twitter.com/kakusei2017/status/1436...		
kakusei2017	barihimatai									Retweet	11/9/2021 0:35	@konosaisaen @konotarogomame	河野太郎プロ	https://pbs.twimg.com/media/...				https://pbs.twimg.com/media/...	11/9/2021 0:35	11/9/2021	00:35:5	https://twitter.com/kakusei2017/status/1436...		
kakusei2017	konosaisaen									Replies to	11/9/2021 0:35	@konosaisaen @konotarogomame	河野太郎プロ	https://pbs.twimg.com/media/...				https://pbs.twimg.com/media/...	11/9/2021 0:35	11/9/2021	00:35:5	https://twitter.com/kakusei2017/status/1436...		
kakusei2017	konotarogoname									MentionsInRe	11/9/2021 0:36	@konosaisaen @konotarogomame	ブルーバッジを今日初め	https://pbs.twimg.com/media/...				https://pbs.twimg.com/media/...	11/9/2021 0:36	11/9/2021	00:36:1	https://twitter.com/kakusei2017/status/1436...		
kakusei2017	yossi180									Retweet	11/9/2021 0:36	@konosaisaen @konotarogomame	ブルーバッジを今日初め	https://pbs.twimg.com/media/...				https://pbs.twimg.com/media/...	11/9/2021 0:36	11/9/2021	00:36:1	https://twitter.com/kakusei2017/status/1436...		
kakusei2017	konosaisaen									Replies to	11/9/2021 0:36	@konosaisaen @konotarogomame	ブルーバッジを今日初め	https://pbs.twimg.com/media/...				https://pbs.twimg.com/media/...	11/9/2021 0:36	11/9/2021	00:36:1	https://twitter.com/kakusei2017/status/1436...		
kakusei2017	konotarogoname									MentionsInRe	11/9/2021 0:37	@konosaisaen @konotarogomame	Why? https://t.c	https://pbs.twimg.com/media/...				https://pbs.twimg.com/media/...	11/9/2021 0:37	11/9/2021	00:37:1	https://twitter.com/kakusei2017/status/1436...		
kakusei2017	bo40124									Retweet	11/9/2021 0:37	@konosaisaen @konotarogomame	Why? https://t.c	https://pbs.twimg.com/media/...				https://pbs.twimg.com/media/...	11/9/2021 0:37	11/9/2021	00:37:1	https://twitter.com/kakusei2017/status/1436...		
kakusei2017	konosaisaen									Replies to	11/9/2021 0:37	@konosaisaen @konotarogomame	Why? https://t.c	https://pbs.twimg.com/media/...				https://pbs.twimg.com/media/...	11/9/2021 0:37	11/9/2021	00:37:1	https://twitter.com/kakusei2017/status/1436...		
koj0000	konotarogoname									Retweet	11/9/2021 0:36	@konosaisaen	私の総裁	https://pbs.twimg.com/media/...				https://pbs.twimg.com/media/...	11/9/2021 0:36	11/9/2021	00:36:4	https://twitter.com/koj0000/status/1436...		
koj0000	konotarogoname									Retweet	11/9/2021 0:37	@konosaisaen	地こ足を	https://pbs.twimg.com/media/...				https://pbs.twimg.com/media/...	11/9/2021 0:37	11/9/2021	00:37:1	https://twitter.com/koj0000/status/1436...		
ogre280	konotarogoname									Retweet	11/9/2021 0:37	@konosaisaen	総裁選 ドリアン喰って いざ、出陣 http	https://pbs.twimg.com/media/...				https://pbs.twimg.com/media/...	11/9/2021 0:37	11/9/2021	00:37:4	https://twitter.com/ogre280/status/1436...		
unone5	konotarogoname									Retweet	11/9/2021 0:37	@konosaisaen	総裁選 ドリアン喰って いざ、出陣 http	https://pbs.twimg.com/media/...				https://pbs.twimg.com/media/...	11/9/2021 0:37	11/9/2021	00:37:5	https://twitter.com/unone5/status/1436...		
north_fomall	konotarogoname									Retweet	11/9/2021 0:37	@konosaisaen	総裁選 ドリアン喰って いざ、出陣 http	https://pbs.twimg.com/media/...				https://pbs.twimg.com/media/...	11/9/2021 0:37	11/9/2021	00:37:5	https://twitter.com/north_fomall/status/1436...		
science_sani	konotarogoname									Retweet	11/9/2021 0:37	@konosaisaen	総裁選 ドリア											

2. Classifying subgroups

ค้นหา (Alt+Q)

NodeXL Pro トレンドตาราง

Vertex Shape ▾
Vertex Size
Edge Width

Graph Metrics ▾
Subgraph Images ▾
Groups ▾

Dynamic Filters
Use Current for New
Import
Export
Reset All

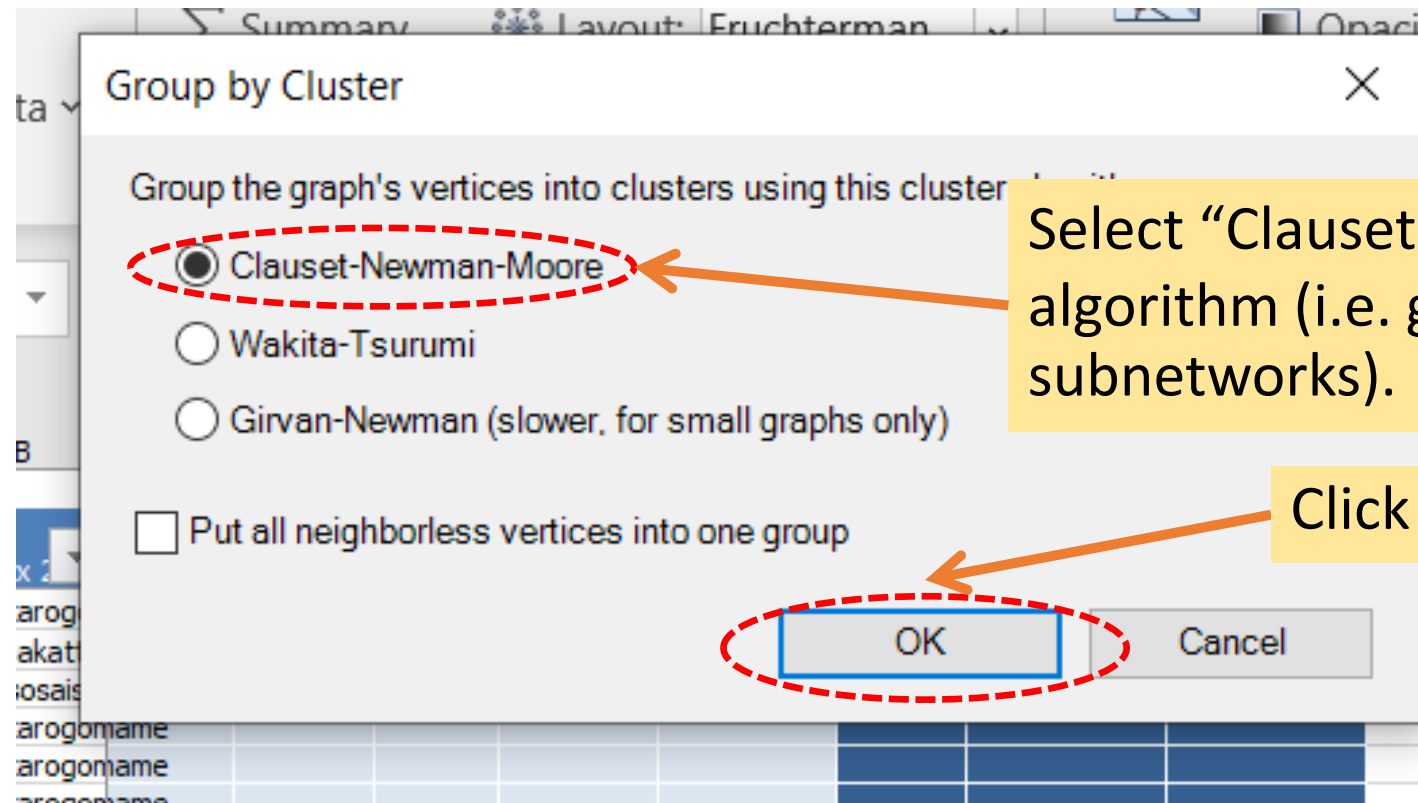
Work
Graph
Show

Group by Vertex Attribute...
Group by Connected Component
Group by Cluster...
Group by Motif...
Collapse Selected Groups
Collapse All Groups
Expand Selected Groups
Expand All Groups
Select Groups Containing Selected Vertices
Select All Groups
Add Selected Vertices to Group...
Remove Selected Vertices from Groups
Remove Selected Groups
Remove All Groups
Group Options...

O	P	Q	W
Relations	Relationship Date (UTC)	Tweet	
MentionsInRe	11/9/2021 0:33	@kon	
Retweet	11/9/2021 0:33	@kon	
Replies to	11/9/2021 0:33	@kon	
Retweet	11/9/2021 0:34	総裁	
Replies to	11/9/2021 0:34	@kon	
Retweet	11/9/2021 0:35	総裁	
Retweet	11/9/2021 0:35	総裁	
Replies to	11/9/2021 0:35	@kon	
Mentions	10/9/2021 16:51	@kon	
Replies to	10/9/2021 16:51	@kon	
Retweet	11/9/2021 0:35	@kon	
MentionsInRe	11/9/2021 0:35	@kon	
Replies to	11/9/2021 0:35	@kon	
Retweet	11/9/2021 0:35	総裁	
Replies to	11/9/2021 0:35	@kon	
Retweet	11/9/2021 0:35	総裁	
Retweet	11/9/2021 0:36	地こ	
Mentions	11/9/2021 0:36	@kon	
Replies to	11/9/2021 0:36	@kon	
Mentions	11/9/2021 0:36	@kon	
Replies to	11/9/2021 0:36	@kon	
Mentions	11/9/2021 0:36	@kon	
Replies to	11/9/2021 0:36	@kon	
Replies to	11/9/2021 0:36	@kon	
Mentions	11/9/2021 0:36	@kon	
Replies to	11/9/2021 0:36	@konososaisen @konotarogame	そして、どうかワクチンと https://pbs.t
Replies to	11/9/2021 0:36	@konotarogame ユーザーのブロック機能の権利は理解で https://pbs.t	
MentionsInRe	11/9/2021 0:35	@konososaisen @konotarogame 皇統を護ってください。 https://pbs.t	
Retweet	11/9/2021 0:35	@konososaisen @konotarogame 皇統を護ってください。 https://pbs.t	
Replies to	11/9/2021 0:35	@konososaisen @konotarogame 皇統を護ってください。 https://pbs.t	
MentionsInRe	11/9/2021 0:35	@konososaisen @konotarogame 河野太郎ブロ https://pbs.t https://pbs.t	
Retweet	11/9/2021 0:35	@konososaisen @konotarogame 河野太郎ブロ https://pbs.t https://pbs.t	
Replies to	11/9/2021 0:35	@konososaisen @konotarogame 河野太郎ブロ https://pbs.t https://pbs.t	
MentionsInRe	11/9/2021 0:36	@konososaisen @konotarogame ブルーバッジを今日初めて https://pbs.t	
Retweet	11/9/2021 0:36	@konososaisen @konotarogame ブルーバッジを今日初めて https://pbs.t	
Replies to	11/9/2021 0:36	@konososaisen @konotarogame ブルーバッジを今日初めて https://pbs.t	
MentionsInRe	11/9/2021 0:37	@konososaisen @konotarogame Why? https://t.c https://pbs.t https://pbs.t	
Retweet	11/9/2021 0:37	@konososaisen @konotarogame Why? https://t.c https://pbs.t https://pbs.t	
Replies to	11/9/2021 0:37	@konososaisen @konotarogame Why? https://t.c https://pbs.t https://pbs.t	
Retweet	11/9/2021 0:36	私の総裁 https://twit twitter.com	https://pbs.t
Retweet	11/9/2021 0:37	地こ足を https://twit twitter.com	https://pbs.t
Retweet	11/9/2021 0:37	総裁選 ドリアン喰って いざ、出陣 https://pbs.t https://pbs.t	
Retweet	11/9/2021 0:37	総裁選 ドリアン喰って いざ、出陣 https://pbs.t https://pbs.t	

Select "Groups".

Select "Group by Cluster..."



Select "Clauaset-Newman-Moore" cluster algorithm (i.e. generating subgroups or subnetworks).

Click on the "OK" button.

การบันทึกอัตโนมัติ NodeXLGraph1 -- konotarogomame ค้นหา (Alt+Q)

ไฟล์ หน้าแรก แทรก คำโครงหน้ากระดาษ สูตร ข้อมูล รีวิว มุมมอง วิธีใช้ **NodeXL Pro** ดัชนีตาราง

Import Show Graph Type: Directed Export Summary Layout: Fruchterman... Automate Color Vertex Shape Graph Metrics Subgraph Images Groups Dynamic Filters Autofill Columns Opacity Vertex Size Edge Width Visibility Use f

Data Graph Visual Properties Analysis

L16

	A	B	C	D	E	F	K	L	M	
1		Visual Properties				Labels	Graph Metrics			
2	Group	Vertex Color	Vertex Shape	Visibility	Collapsed?	Label	Vertices	Unique Edges	Edges With Duplicates	To Ed
3	G1	0, 12, 96	Disk							
4	G2	0, 136, 227	Disk							
5	G3	0, 100, 50	Disk							
6	G4	0, 176, 22	Disk							
7	G5	191, 0, 0	Disk							
8	G6	230, 120, 0	Disk							
9	G7	255, 191, 0	Disk							
10	G8	150, 200, 0	Disk							
11	G9	200, 0, 120	Disk							
12	G10	77, 0, 96	Disk							
13	G11	91, 0, 191	Disk							
14	G12	0, 98, 130	Disk							
15	G13	0, 12, 96	Solid Square							
16	G14	0, 136, 227	Solid Square							
17	G15	0, 100, 50	Solid Square							
18	G16	0, 176, 22	Solid Square							
19	G17	191, 0, 0	Solid Square							
20	G18	230, 120, 0	Solid Square							
21	G19	255, 191, 0	Solid Square							
22	G20	150, 200, 0	Solid Square							
23	G21	200, 0, 120	Solid Square							
24	G22	77, 0, 96	Solid Square							
25	G23	91, 0, 191	Solid Square							
26	G24	0, 98, 130	Solid Square							
27	G25	0, 12, 96	Solid Diamond							
28	G26	0, 136, 227	Solid Diamond							

Edges Vertices **Groups** Group Vertices Overall Metrics

This algorithm will generate subgroups shown in the "Groups" sheet.

3. Creating a network chart

การบันทึกอัตโนมัติ NodeXLGraph1 -- konotarogomame ค้นหา (Alt+Q)

ไฟล์ หน้าแรก แทรก คำโครงหน้ากระดาษ สูตร ข้อมูล รีวิว มุมมอง วิธีใช้ **NodeXL Pro** ดัดแปลง

Import Export Prepare Data Show Graph Summary Automate Type: Directed Fruchterman... Layout: Autofill Color Opacity Visibility Vertex Shape Vertex Size Edge Width Dynamic Filters

Data Graph

L16

	A	B	C	E	F	K	L
1		Visual Properties				Labels	Graph Metrics
2	Group	Vertex Color	Vertex Shape	Collapsed?	Label	Vertices	Unique Edges
3	G1	0, 12, 96	Disk				
4	G2	0, 136, 227	Disk				
5	G3	0, 100, 50	Disk				
6	G4	0, 176, 22	Disk				
7	G5	191, 0, 0	Disk				
8	G6	230, 120, 0	Disk				
9	G7	255, 191, 0	Disk				
10	G8	150, 200, 0	Disk				
11	G9	200, 0, 120	Disk				
12	G10	77, 0, 96	Disk				
13	G11	91, 0, 191	Disk				
14	G12	0, 98, 130	Disk				
15	G13	0, 12, 96	Solid Square				
16	G14	0, 136, 227	Solid Square				
17	G15	0, 100, 50	Solid Square				
18	G16	0, 176, 22	Solid Square				
19	G17	191, 0, 0	Solid Square				
20	G18	230, 120, 0	Solid Square				
21	G19	255, 191, 0	Solid Square				
22	G20	150, 200, 0	Solid Square				
23	G21	200, 0, 120	Solid Square				
24	G22	77, 0, 96	Solid Square				
25	G23	91, 0, 191	Solid Square				
26	G24	0, 98, 130	Solid Square				
27	G25	0, 12, 96	Solid Diamond				
28	G26	0, 136, 227	Solid Diamond				

Layout Options...

Select "Layout Options..."

Graph Visual Proper

Layout Options

Margin: 6

Layout style

Lay out the entire graph in the entire graph pane (typical case)

Lay out each of the graph's groups in its own box

Box layout algorithm: Treemap

Width of the box outlines: 1

Intergroup edges: Show

Use the Grid layout for groups that don't have many edges

Lay out the graph's smaller connected components in boxes at the bottom of the graph pane

Maximum size of the connected components to lay out in boxes: 3 vertices

Box size: 16

Fruchterman-Reingold layout

Strength of the repulsive force between vertices: 3.0

Iterations per layout: 10

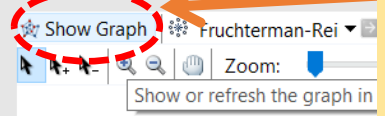
Reset All OK Cancel

Select "Lay out each of the graph's groups in its own box".

Select the "OK" button.

	A	B	C	D	E	F	K	L
1	Visual Properties					Labels	Graph Metrics	
2	Group	Vertex Color	Vertex Shape	Visibility	Collapsed?	Label	Vertices	Unique Edges
3	G1	0, 12, 96	Disk					
4	G2	0, 136, 227	Disk					
5	G3	0, 100, 50	Disk					
6	G4	0, 176, 22	Disk					
7	G5	191, 0, 0	Disk					
8	G6	230, 120, 0	Disk					
9	G7	255, 191, 0	Disk					
10	G8	150, 200, 0	Disk					
11	G9	200, 0, 120	Disk					
12	G10	77, 0, 96	Disk					
13	G11	91, 0, 191	Disk					
14	G12	0, 98, 130	Disk					
15	G13	0, 12, 96	Solid Square					
16	G14	0, 136, 227	Solid Square					
17	G15	0, 100, 50	Solid Square					
18	G16	0, 176, 22	Solid Square					
19	G17	191, 0, 0	Solid Square					
20	G18	230, 120, 0	Solid Square					
21	G19	255, 191, 0	Solid Square					
22	G20	150, 200, 0	Solid Square					
23	G21	200, 0, 120	Solid Square					
24	G22	77, 0, 96	Solid Square					
25	G23	91, 0, 191	Solid Square					
26	G24	0, 98, 130	Solid Square					
27	G25	0, 12, 96	Solid Diamond					
28	G26	0, 136, 227	Solid Diamond					

การกระทำของเอกสาร



Select the "Show Graph" button.



[NodeXL Pro](#) is updated

- Fixed bug for
- Added a "Dat
- Added separa

when exportin



New step-by-step t

- Social networ
- How to Autor
- [Semantic Net](#)
- [Working with](#)



New edition of the

- Learn to auto
- Access data f
- Gain insight i

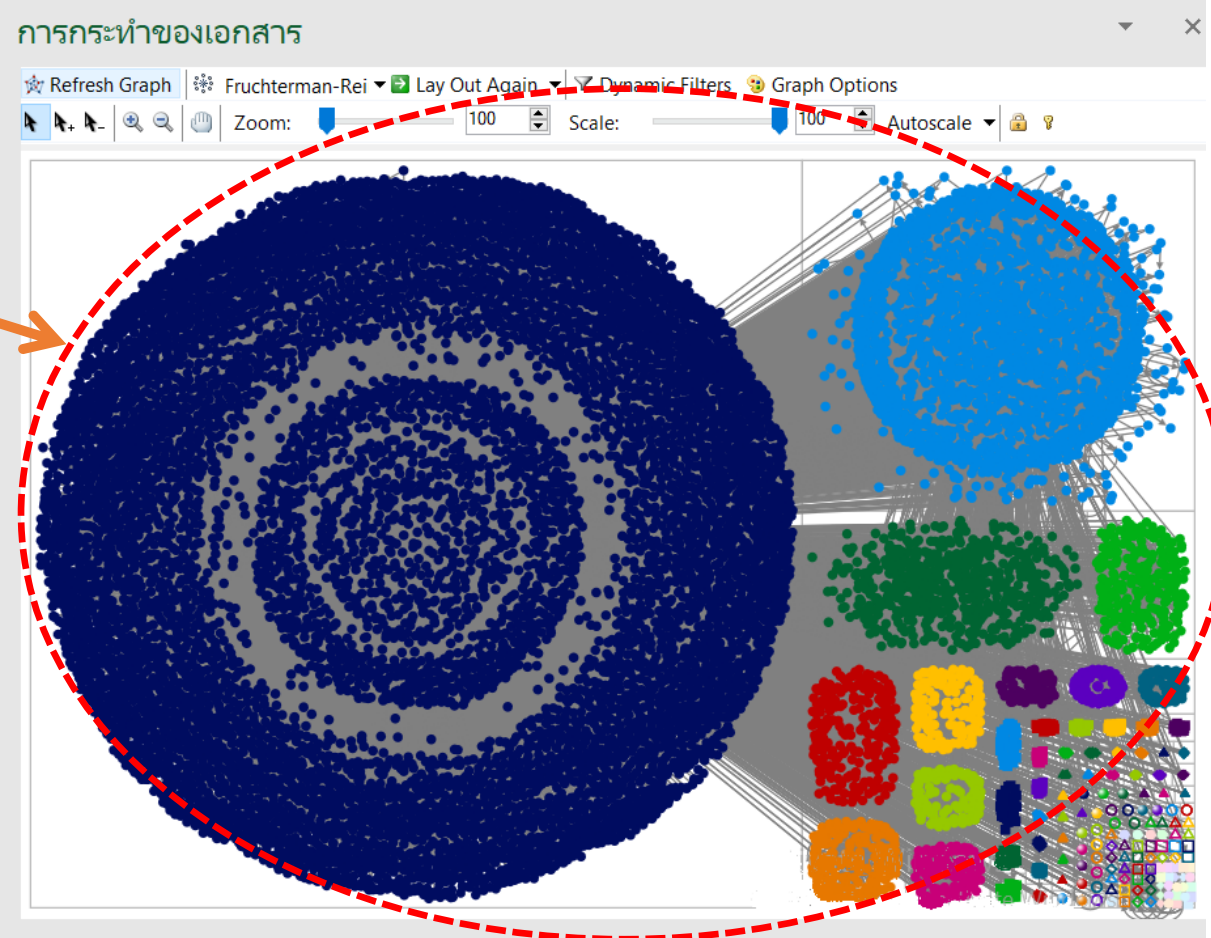
File หน้าแรก แทรก คำโครงหน้ากระดาษ สูตร ข้อมูล วิว มุมมอง วิธีใช้ **NodeXL Pro** ดัชนีตาราง แชนร์ ข้อคิดเห็น

Import Export Prepare Data Refresh Graph Summary Automate Type: Directed Layout: Fruchterman... Autofill Columns Opacity Visibility Color Vertex Shape Vertex Size Edge Width Dynamic Filters Groups Graph Metrics Subgraph Images Use Current for New Import Export Reset All Workbook Columns Graph Elements Show Notifications Help Online Donate About

L16

	A	B	C	D	E	F	K	L
1	Visual Properties					Labels	Graph Metrics	
2	Group	Vertex Color	Vertex Shape	Visibility	Collapsed?	Label	Vertices	Unique Edges
3	G1	0, 12, 96	Disk					
4	G2	0, 126, 227	Disk					
5								
6								
7								
8								
9								
10	G8	150, 200, 0	Disk					
11	G9	200, 0, 120	Disk					
12	G10	77, 0, 96	Disk					
13	G11	91, 0, 191	Disk					
14	G12	0, 98, 130	Disk					
15	G13	0, 12, 96	Solid Square					
16	G14	0, 136, 227	Solid Square					
17	G15	0, 100, 50	Solid Square					
18	G16	0, 176, 22	Solid Square					
19	G17	191, 0, 0	Solid Square					
20	G18	230, 120, 0	Solid Square					
21	G19	255, 191, 0	Solid Square					
22	G20	150, 200, 0	Solid Square					
23	G21	200, 0, 120	Solid Square					
24	G22	77, 0, 96	Solid Square					
25	G23	91, 0, 191	Solid Square					
26	G24	0, 98, 130	Solid Square					
27	G25	0, 12, 96	Solid Diamond					
28	G26	0, 136, 227	Solid Diamond					

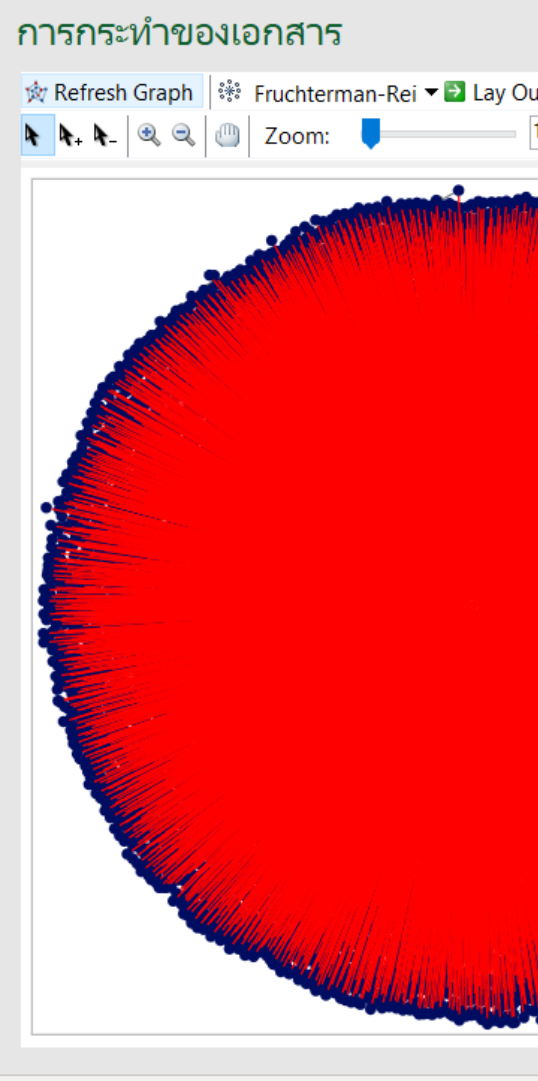
The complete network chart is shown in this window.

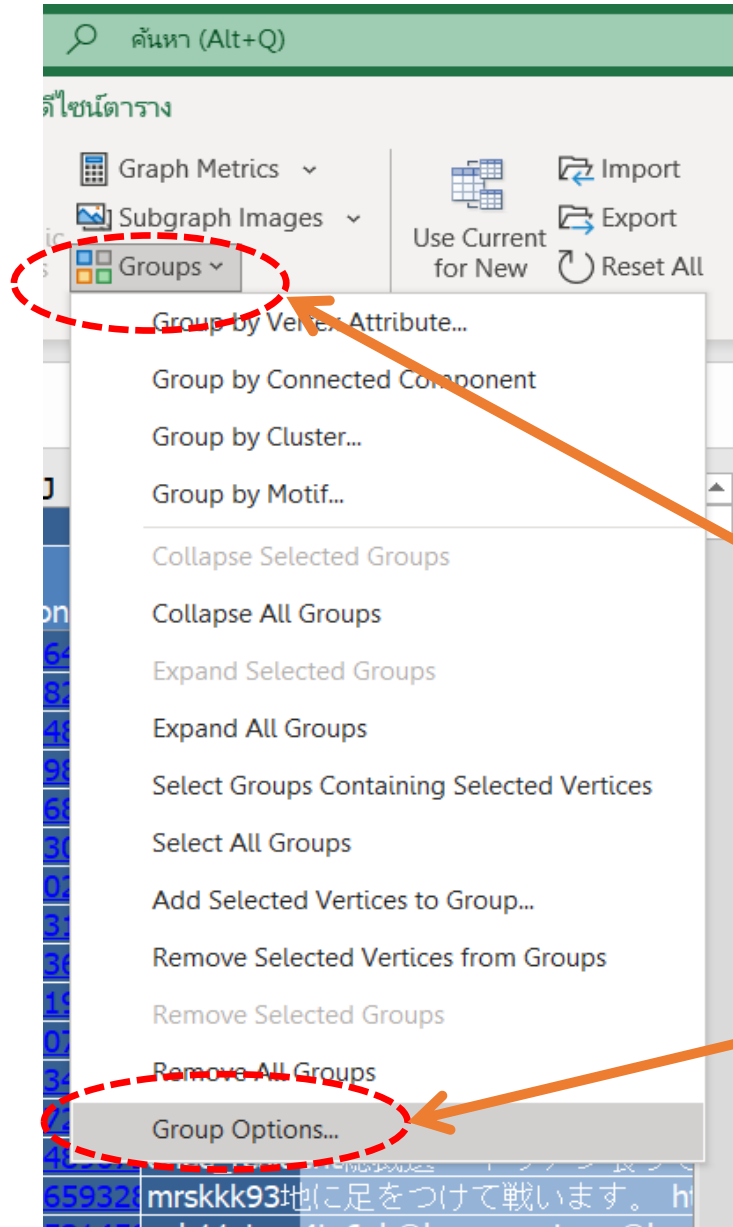


On "Vertices" sheet.
Insert the value of "11"
on the "Shape" column.

	Visual Properties					Labels				
	Vertex	Color	Shape	Size	Opacity	Image File	Visibility	Label	Label Fill	Label Position
3	suika0109		11	5.0		https://pbs.twimg.com/profile_images/1086621309864312		su		
4	konotarogomame		11	35.0		https://pbs.twimg.com/profile_images/1182051179582251		ko		
5	seigihakatta		11	5.0		https://pbs.twimg.com/profile_images/1355803791048601		se		
6	konososaisen		11	5.0		https://pbs.twimg.com/profile_images/66298503		ko		
7	keisukenarumi		11	5.0		https://pbs.twimg.com/profile_images/66568908		ke		
8	harumor		11	5.0		https://pbs.twimg.com/profile_images/104030900		ha		
9	dreventus		11	5.0		https://pbs.twimg.com/profile_images/81902321		dr		
10	yuminnie_mouse		11	5.0		https://pbs.twimg.com/profile_images/22731448		yu		
11	toshi_m9l0v0lo		11	5.0		https://pbs.twimg.com/profile_images/1186421040336916		to		
12	yakd6l5amigld0d		11	5.0		https://pbs.twimg.com/profile_images/9924113325519831		ya		
13	vixxmaple		11	5.0		https://pbs.twimg.com/profile_images/5831398757607096		vi		
14	chomucruise		11	5.0		https://pbs.twimg.com/profile_images/1131526366434811		ch		
15	trumpetaro		11	5.0		https://pbs.twimg.com/profile_images/8766487182372782		tr		
16	onee_resident		11	5.0		https://pbs.twimg.com/profile_images/1373981713248907		or		
17	mrskkk93		11	5.0		https://pbs.twimg.com/profile_images/1425224952265932		m		
18	soh11ctmq4tv6qk		11	5.0		https://pbs.twimg.com/profile_images/1225638920253145		so		
19	japanesebest		11	5.0		https://pbs.twimg.com/profile_images/1426160797021921		ja		
20	tyt8765		11	5.0		https://pbs.twimg.com/profile_images/1409163014972919		ty		
21	fkawarasaki		11	5.0		https://abs.twimg.com/sticky/default_profile_images/default		fk		
22	lilysince2021		11	5.0		https://pbs.twimg.com/profile_images/1368566956161261		lih		
23	yellowmonkeyd_		11	5.0		https://pbs.twimg.com/profile_images/1428985524216164		ye		
24	kakusei2017		11	5.0		https://pbs.twimg.com/profile_images/1348258805138612		ka		
25	toru_1979		11	5.0		https://pbs.twimg.com/profile_images/1335045000455880		to		
26	barihimatai		11	5.0		https://pbs.twimg.com/profile_images/1424566011051663		ba		
27	yossi180		11	5.0		https://pbs.twimg.com/profile_images/1376700696402161		yo		
28	bo40124		11	5.0		https://pbs.twimg.com/profile_images/1170121856877133		bo		

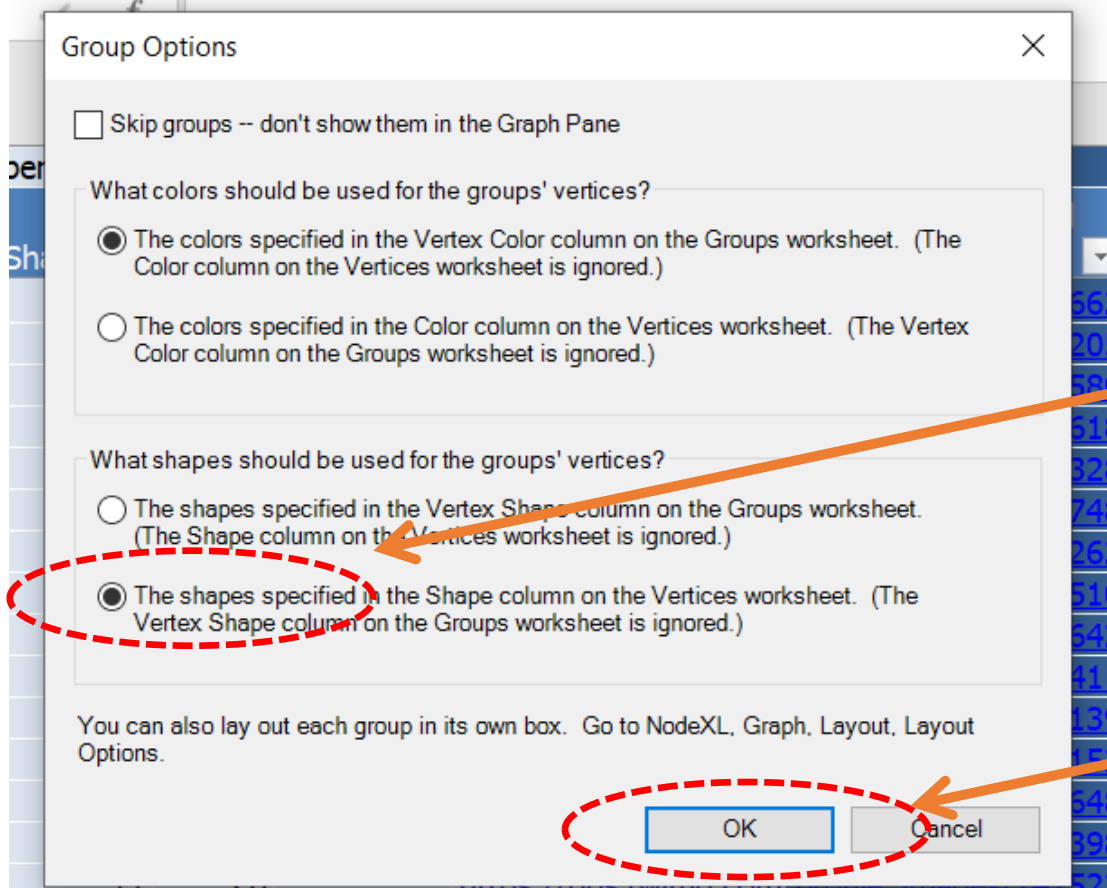
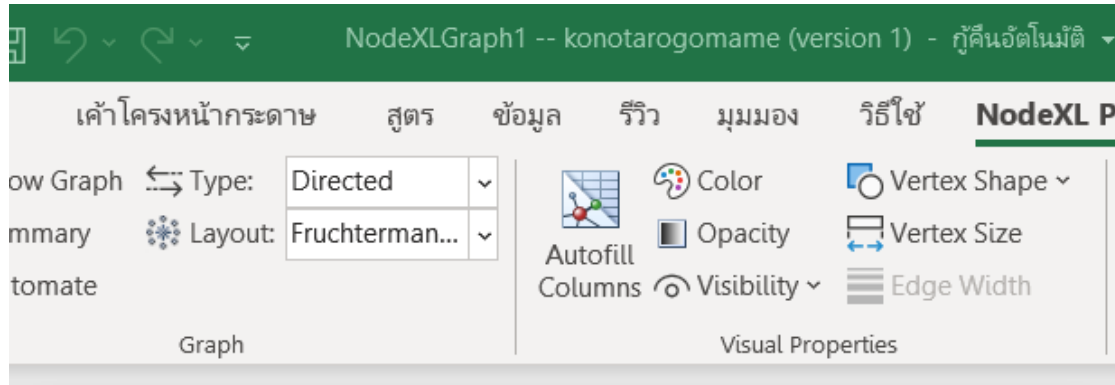
Insert the size value of
on the "Size" column.





Select "Groups".

Then, select "Group Options".

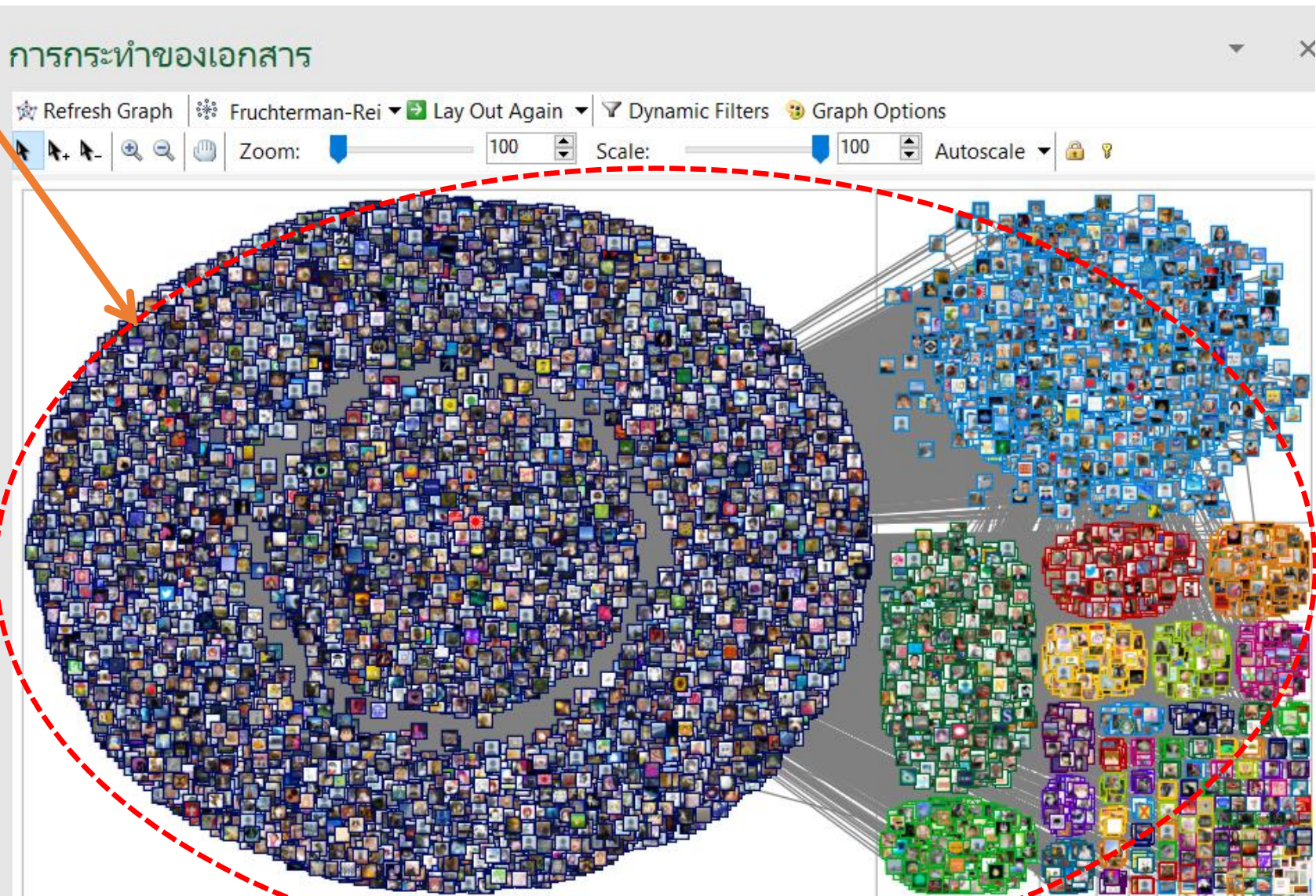


Select this option.

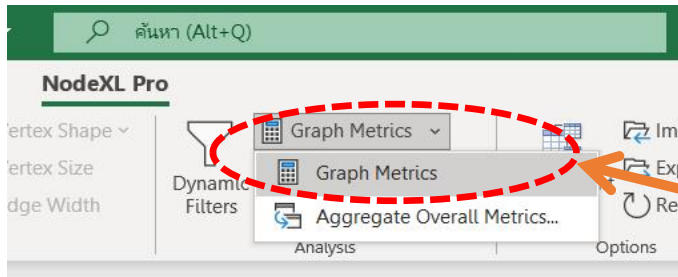
Then, click on the "OK" button.

The pictures of all users are now included in the network chart.

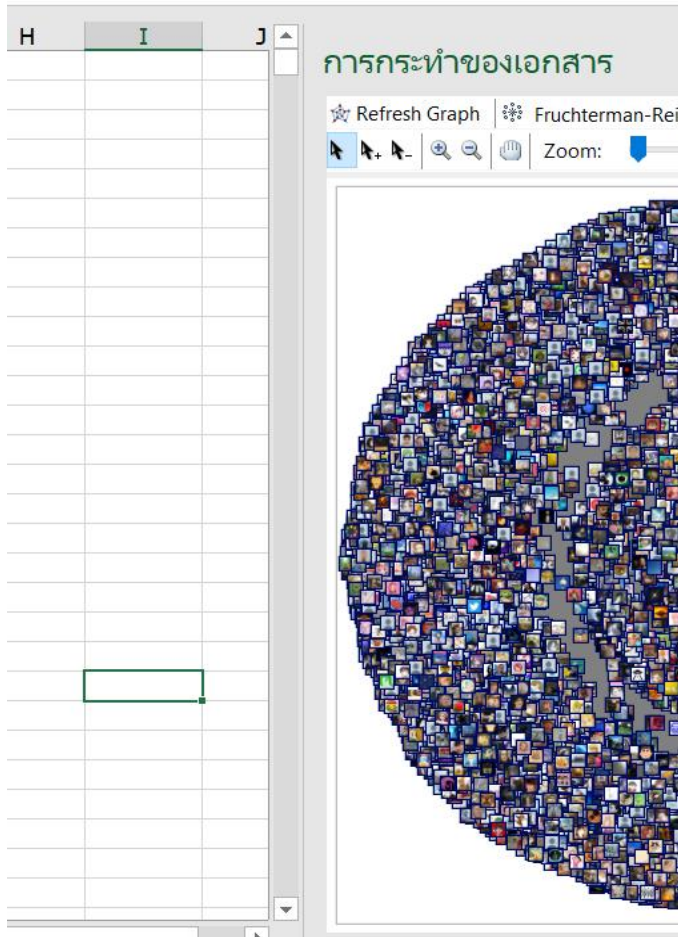
Group	Vertex	Vertex ID
G1	sui ren_rb	12141
G1	konotarogc	4
G1	aquaworld2	12140
G1	nhv1ud92n	12139
G1	fjswsumme	12135
G1	5tgheb75d	12132
G1	san8829	12129
G1	ironnajibun	12128
G1	tibitibigood	12127
G1	rocketp270	12126
G1	konishillion	12125
G1	japan3939	12124
G1	twqwo	12123
G1	akiyosh805	12122
G1	cy1g7yrhsz	12120
G1	yoshi_naga	12119
G1	neirocchi	12118
G1	jp1fjr4115	12116
G1	ajigasawan	12113
G1	ryouteinoaj	12111
G1	syakenekol	12108
G1	kjur	12107
G1	kunichan16	12105
G1	ahmhcgaih	12104
G1	n4wq0btyh	12101
G1	yoshidenm	12099



4. Computing Network Indicators and Centrality Indices



Select "Graph Metrics" → "Graph Metrics".



Metrics to calculate and insert into the workbook:

- Overall graph metrics (count vertices, edges (by type), and more)
- Vertex degree (undirected graphs only)
- Vertex in-degree (directed graphs only)
- Vertex out-degree (directed graphs only)
- Vertex betweenness and closeness centralities
- Vertex eigenvector centrality
- Vertex PageRank
- Vertex clustering coefficient
- Vertex reciprocated vertex pair ratio (directed graphs only)
- Edge reciprocation (directed graphs only)
- Group metrics
- Time series
- Paths
- Words and word pairs
- Edge creation by shared content similarity
- Top items
- Twitter search network top items [OLD: to be removed soon]
- Network top items

Buttons: Select All, Deselect All, Options...

Overall graph metrics (count vertices, edges (by type), and more)

The following overall metrics get inserted into the Overall Metrics worksheet:

Graph Type	Directed or undirected.
Vertices	The number of vertices in the graph.
Unique Edges	The number of edges that do not have duplicates.
Edges With Duplicates	The number of edges that have duplicates.
Total Edges	The number of edges in the graph. This is the sum of Unique Edges and Edges With Duplicates.
Number of Edge	The number of different edge types in the graph.

Buttons: Calculate Metrics, Cancel

[About duplicate edges](#)

Click on the “Select All” button.

Click on the “Calculate Metrics” button.

	A	B	C	Y	Z
1	Graph Metric	Value			
2	Graph Type	Directed			
3					
4	Vertices	12139			
5					
6	Unique Edges	15419			
7	Edges With Duplicates	13740			
8	Total Edges	29159			
9					
10	Self-Loops	309			
11					
12	Reciprocated Vertex Pair Ratio	0.008816121			
13	Reciprocated Edge Ratio	0.017478152			
14					
15	Connected Components	29			
16	Single-Vertex Connected Components	24			
17	Maximum Vertices in a Connected Component	12106			
18	Maximum Edges in a Connected Component	29124			
19					
20	Maximum Geodesic Distance (Diameter)	6			
21	Average Geodesic Distance	2.133833			
22					
23	Graph Density	0.000130471			
24	Modularity	0.378552			
25					
26	NodeXL Version	1.0.1.446			
27					
28	Graph Gallery URL	Not Available			
29	Graph Image URL	Not Available			

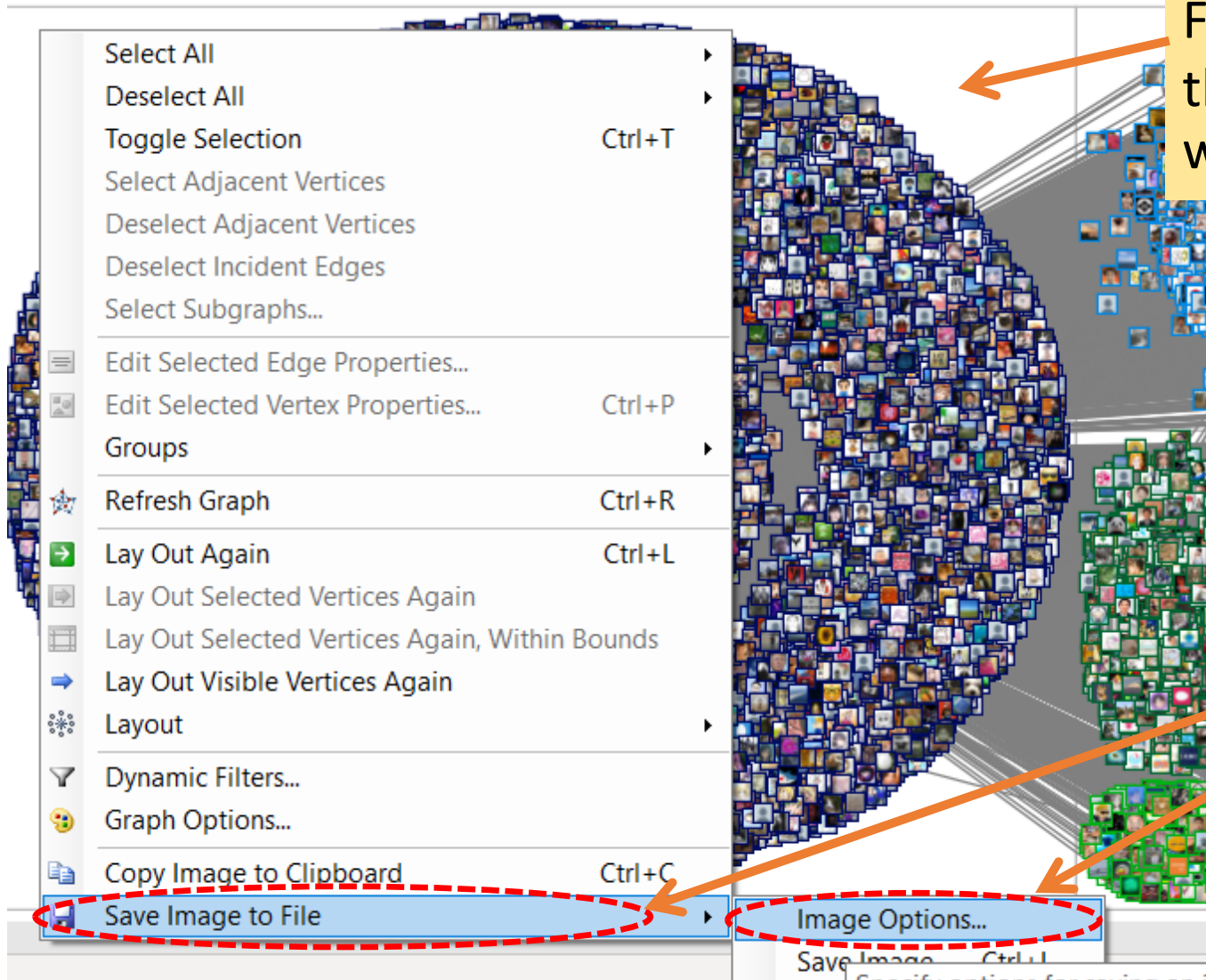
All network indicators are shown in "Overall Matrices" sheet.

Overall Metrics

1	A	I	J	K	R	S	T	U	V	W	X	Y	Z	AC	AD	A
2	Vertex	Label F#	Label Position	Tooltip	Degree	In-Deg	Out-Deg	Betweenness Centrality	Closeness Centrality	Eigenvector Centrality	PageRank	Clustering Coefficient	Reciprocated Vert Pair Ratio	Other Columns		
3	suika0109	1086621309864312		suika0109@konososais	0	3	0.000	0.000	0.000	0.851	0.500	0.000			Suica	5190
4	konotarog	1182051179582251		konotarogomameABEM	11398	2	144666095.872	0.000	0.007	3733.548	0.000	0.000			河野太郎	1043
5	seigihakatt	1355803791048601		seigihakatta@konotarog	13	2	91.648	0.000	0.000	3.803	0.086	0.000			マスゴ	1330
6	konososais	1436181866288503		konososaisenABEMA Pr	1660	1	1612223.192	0.000	0.001	404.637	0.000	0.000			河野太郎	1435
7	keisukenar	11213280266568908		keisukenarumi総裁選	0	1	0.000	0.000	0.000	0.428	0.000	0.000			る・も	3162
8	harumor	1177487904020900		harumor@konotarogon	0	1	0.000	0.000	0.000	0.428	0.000	0.000			レオた	1081
9	dreventus	1112622681902321		dreventus総裁選 ド	0	1	0.000	0.000	0.000	0.428	0.000	0.000			ドリベ	9680
10	yuminnie	6885106022731448		yuminnie_mouse総裁	0	1	0.000	0.000	0.000	0.428	0.000	0.000			ゆちい	2665
11	toshi_m90	1186421040336916		toshi_m90y0lo@konot	0	1	0.000	0.000	0.000	0.428	0.000	0.000			Toshi@	1492
12	yakd6l5am	9924113325519831		yakd6l5amigd0d@kon	1	2	0.000	0.000	0.000	0.887	0.500	0.000			テツ	8803
13	vixxmaple	5831398757607096		vixxmaple@konososais	0	3	0.000	0.000	0.000	0.887	0.500	0.000			sachiko	1853
14	chomucruis	1131526366434811		chomucruise総裁選	0	1	0.000	0.000	0.000	0.428	0.000	0.000			北海道	1029
15	trumpetaro	8766487182372782		trumpetaro@konotarog	0	1	0.000	0.000	0.000	0.428	0.000	0.000			鈴木太郎	1235
16	onee_resid	1373991713248907		onee_resident総裁選	0	1	0.000	0.000	0.000	0.428	0.000	0.000			Dr. おね	1247
17	mrskkk93	1425224952265932		mrskkk93地に足を	0	1	0.000	0.000	0.000	0.428	0.000	0.000			空也	4970
18	soh11ctmq	1225638920253145		soh11ctmq4tv6qk@ko	0	2	0.000	0.000	0.000	0.635	0.500	0.000			複製人間	1225
19	japanesebe	1426160797021921		japanesebest@konos	0	2	0.000	0.000	0.000	0.635	0.500	0.000			静かな	2327
20	tyt8765	1409163014972919		tyt8765@konososais	0	2	0.000	0.000	0.000	0.635	0.500	0.000			TAICHI	3826
21	fkawarasa	ult_profile_images/defa		fkawarasaki@konotar	0	1	0.000	0.000	0.000	0.428	0.000	0.000			fujio kaw	1359
22	lilysince20	1368566956161261		lilysince2021@konos	0	2	0.000	0.000	0.000	0.635	0.500	0.000			Lily	1363
23	yellowmonk	1428985524216164		yellowmonkeyd_@kon	0	1	0.000	0.000	0.000	0.428	0.000	0.000			愛之助	1416
24	kakusei201	1348258805138612		kakusei2017@konos	0	6	4.069	0.000	0.000	1.398	0.300	0.000			覚醒	1123
25	toru_1979	1325045000455880		toru_1979@ty_polep	5	4	3679.244	0.000	0.000	1.801	0.196	0.000			徹	1335
26	barihimatai	1424566011051663		barihimatai@konosos	4	2	4.063	0.000	0.000	1.496	0.300	0.000			barikat	1254
27	yossi180	1376700696402161		yossi180@konososais	21	2	173.963	0.000	0.000	4.855	0.095	0.000			yossi	1270
28	bo40124	1170121856877133		bo40124@konososais	29	3	312.938	0.000	0.000	6.548	0.076	0.000			Apruc	8474
29	koj0000	1416259614891339		koj0000地に足を	0	1	0.000	0.000	0.000	0.428	0.000	0.000			K@かり	1108
30	ogre280	1433411937744785		ogre280総裁選 ドリ	0	1	0.000	0.000	0.000	0.428	0.000	0.000			OGRE	1391
31	unone5	1364712416605466		unone5総裁選 ドリ	0	1	0.000	0.000	0.000	0.428	0.000	0.000			うのん	1124
32	north_foma	4720436478698004		north_fomalhaut総裁	0	1	0.000	0.000	0.000	0.428	0.000	0.000			みき	2230
33	science_sa	1349321228838834		science_sandca総裁	0	1	0.000	0.000	0.000	0.428	0.000	0.000			ルーベ	1000
34	kmrke	3200097500da67d		kmrke「次の質問ど	0	1	0.000	0.000	0.000	0.428	0.000	0.000			百田	1000
35	togepytoge	4470829604123525		togepytogepi地に	0	1	0.000	0.000	0.000	0.428	0.000	0.000			トゲ	1000
36	nemunoki	1385825479584751		nemunoki cps総裁	0	1	0.000	0.000	0.000	0.428	0.000	0.000			るネ	1000
37	r_hexar	6764691302292480		r_hexar総裁選 ドリ	0	1	0.000	0.000	0.000	0.428	0.000	0.000			R	1000
38	monkeycha	1420873488558304		monkeychan1234総裁	0	1	0.000	0.000	0.000	0.428	0.000	0.000			おさる	1000
39	hanegu	1431957986923016		hanegu総裁選 ドリ	0	1	0.000	0.000	0.000	0.428	0.000	0.000			羽印	1000
40	akatsuki_la	1379031656401539		akatsuki_land総裁	0	1	0.000	0.000	0.000	0.428	0.000	0.000			刹那	1000
41	exwnzwvzj	1423458997714112		exwnzwvzjmb4v総裁	0	1	0.000	0.000	0.000	0.428	0.000	0.000			風の工	1000
42	kokakobe	1348229723588193		kokakobe@konotarogo	0	1	0.000	0.000	0.000	0.428	0.000	0.000			Koka	1000
43	merry5548	1294653093347399		merry5548総裁選 ト	0	1	0.000	0.000	0.000	0.428	0.000	0.000			メリ	1000
44	ukneko1	1414945203874566		ukneko1@konotarogon	0	1	0.000	0.000	0.000	0.428	0.000	0.000			UK_ne	1000
45	rkq6jbrjrl	1157810351850727		rkq6jbrjrlhtznm総裁	0	1	0.000	0.000	0.000	0.428	0.000	0.000			ぶー	1000
46	rooxu571	7595026148871823		rooxu571@konotarogo	0	1	0.000	0.000	0.000	0.428	0.000	0.000			たむさ	2455
47	p20666965	1399856328885948		p20666965総裁選	0	1	0.000	0.000	0.000	0.428	0.000	0.000			さし	1186
48	knsbrn	1284350039343761		knsbrn@konotarogoma	0	1	0.000	0.000	0.000	0.428	0.000	0.000			K	8082

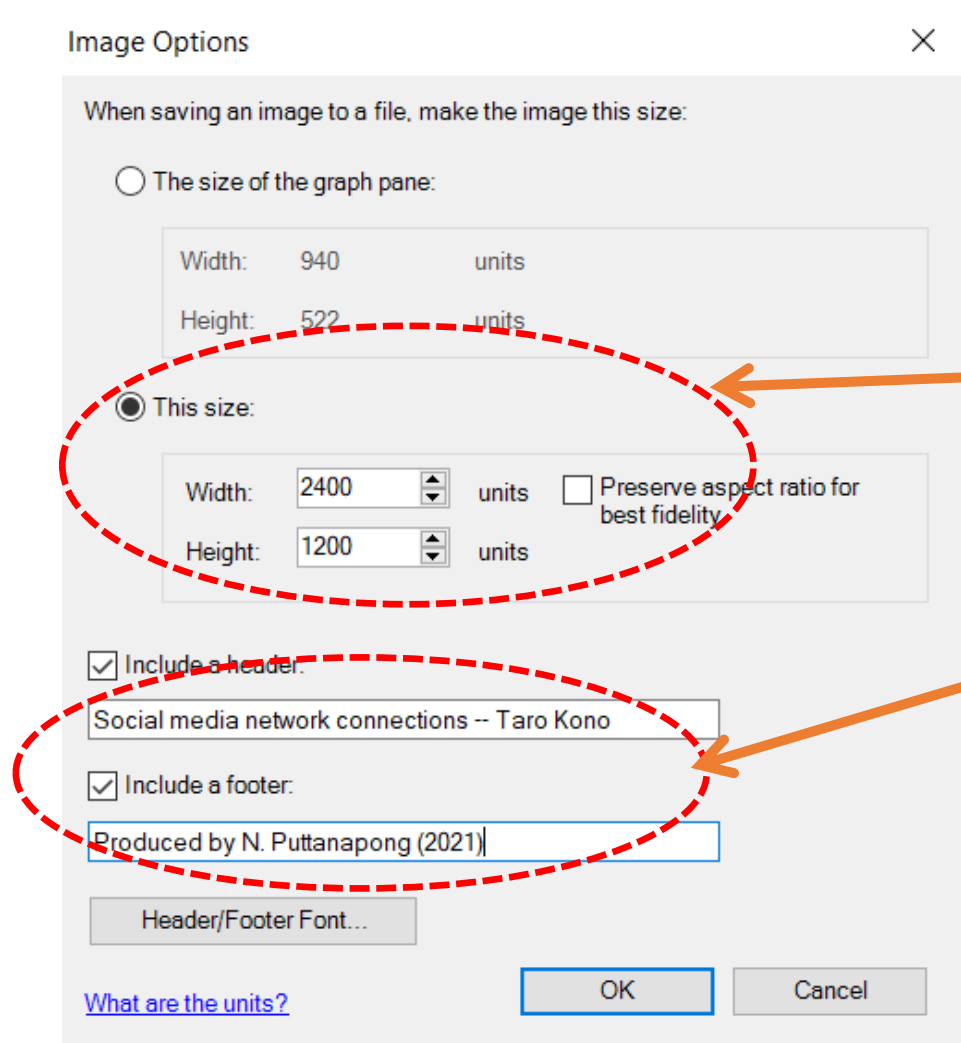
All centrality indicators are included in "Vertices" sheet.

5. Exporting a network chart



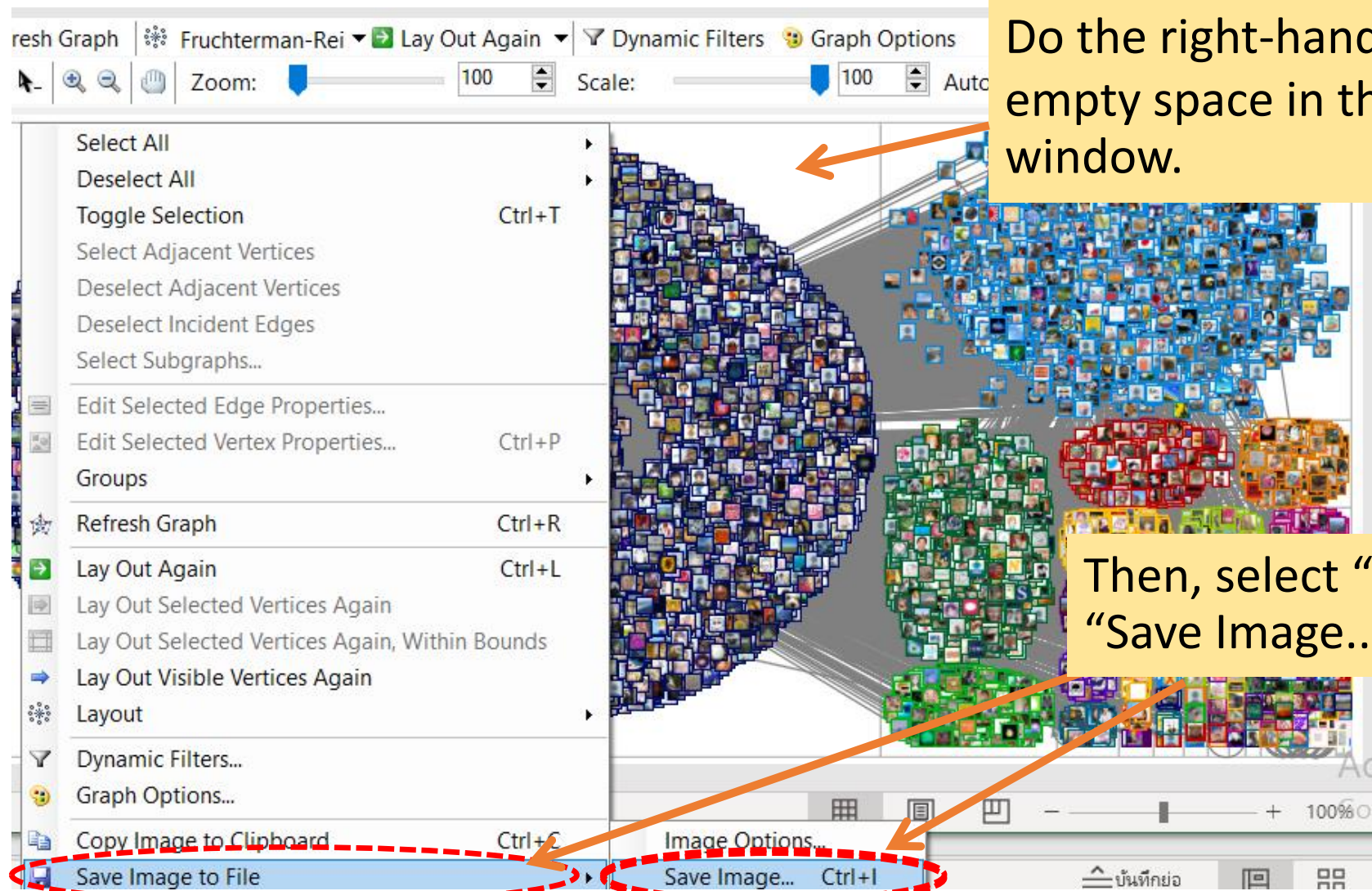
First, do the right-hand-side click on the empty space in the network chart window.

Then, select "Save Image to File" → "Image Options..."



The size of the network chart can be adjusted.

The captions of header and footer can be specified in these boxes.

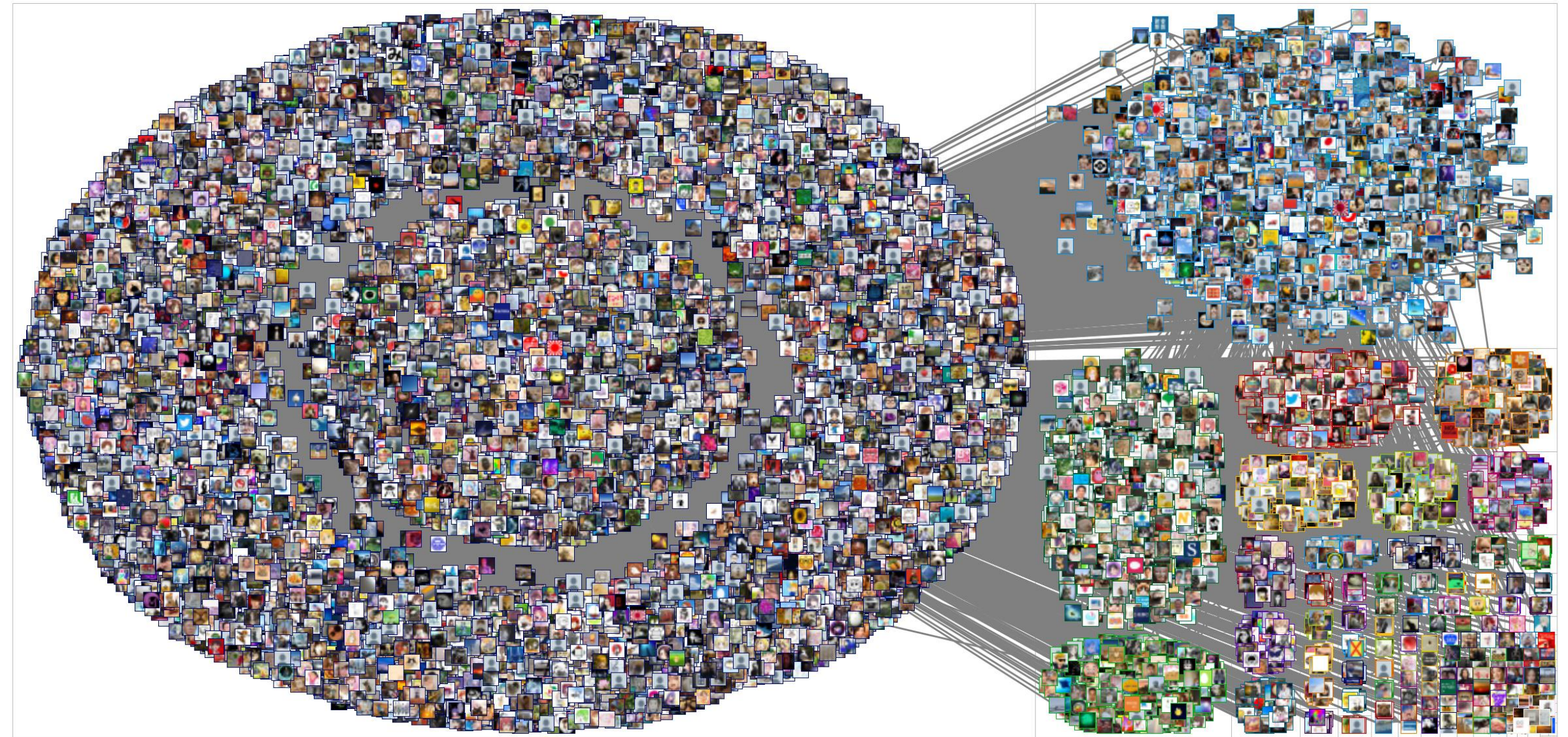


Do the right-hand-side click on the empty space in the network chart window.

Then, select "Save Image to File" → "Save Image...".

The complete network chart is now saved as a picture file.

Social media network connections – Taro Kono



Produced by N. Puttanapong (2021)