visNetwork

<https://www.rdocumentation.org/packages/visNetwork/versions/2.0.5/topics/visEdges>

<https://datastorm-open.github.io/visNetwork/legend.html>

<http://kateto.net/network-visualization>

<https://cran.r-project.org/web/packages/visNetwork/vignettes/Introduction-to-visNetwork.html>

<https://www.rdocumentation.org/packages/visNetwork/versions/2.0.5/topics/visInteraction>

Two infomations to create a visNetwork object:

* Nodes data frame, with id column
* Edges data frame, with from and to columns

\*Options can be added in data frame, to be a variable in data frame.

label (add labels on nodes)

group (add group on nodes)

value (node size)

shape = c("square", "triangle", "box", "circle", "dot", "star",

"ellipse", "database", "text", "diamond")

title (text showing when hover, can using html style to format)

title = paste0("<p><b>", 1:10,"</b><br>Node !</p>")

color

shadow shadow.size

highlight ( the color when it is clicked)

arrow (arrow pointing direction, close to “to”, or “from”, or”middle”, or”to:middle”, for directed network)

image (import a pic first and then set to image=paste(path, “.png”)

path\_to\_images <- "https://raw.githubusercontent.com/datastorm-open/datastorm-open.github.io/master/visNetwork/data/img/indonesia/"

nodes <- data.frame(id = 1:4,

shape = c("image", "circularImage"),

image = paste0(path\_to\_images, 1:4, ".png"),

label = "I'm an image")

edges <- data.frame(from = c(2,4,3,3), to = c(1,2,4,2))

visNetwork(nodes, edges, width = "100%") %>%

visNodes(shapeProperties = list(useBorderWithImage = TRUE)) %>%

visLayout(randomSeed = 2)

\*Options can be added in visNodes(), visEdges(), visGroups()

visNetwork() %>% visNodes()

\*visLegend()

\*visOptions (highlightNearest = TRUE, nodeIdSelection = TRUE, selectedBy = dataframe$col/ differet groups in nodes data frame)

\*visEvents () like function in JS for webpage

visEvents(selectNode = "function(properties) {

alert('selected nodes ' + this.body.data.nodes.get(properties.nodes[0]).id);}"

\*visInteraction()

hideEdgesOnDrag: hide edges when dragging the view

hideNodesOnDrag: hide nodes when dragging the view

\*To always have same layout, use visLayout(randomSeed=1)

\*Can work with Igraph

- visIgraphLayout( layout=”….”)

- visIgraph(igraph\_network\_object) plot directly

-visNetwork\_object = toVisNetworkData(igraph\_network)

visNetwork(nodes = visNetwork\_object$node, edges=visNetwork\_object$edge)

Converting igraph object to visNetwork object then plot visNetwork object

\*visGroups() can set different icons, colors for different groups