**OCR Supplement Steps**

1. Extract files from SEAL Lab site.

1. directors\_trustees-02.csv (data file)
2. merged07.csv (data file)
3. codebook 03\_17\_V3.pdf will also be helpful

2. Open both data files in R, create smaller files that can be opened in excel.

# Import merged07.csv and directors\_trustees-02.csv

# Get rid of the data you don’t need by creating subsets – swap out year/province/city for whatever is relevant

dirsub <- subset(directors\_trustees.02, year==2017)

merge1 <- subset(merged07, year==2017)

merge2 <- subset(merge1, province=='ON')

mergesub <- subset(merge1, city=='SIMCOE')

# Combine the two files so that only the names of directors from your city are included, rather than the whole province

library(dplyr)

together <- dirsub %>% semi\_join(mergesub, by = "bn")

# Export as a .csv file

write.csv(together, ‘together.csv’)

write.cssv(mergesub, ‘mergesub.csv’)

3. Save together.csv as macro enabled and open this version, also open mergesub.csv. Create a tab called ‘Separate’ and insert ‘bn’ and ‘chnm’ from mergesub in columns A and B, respectively. You can close mergesub. Save together.macro.

4. Run Macro 1 (SetUp)

5. Run Macro 2 (fullname)

5. Run Macro 3 (AfterFN)

6. Run Macro 4 (EdgeList)

7. Run Macro 5 (transposeunique)

8. Reformat the edge list so that it only takes up three columns and all permutations are represented

9. Create nodes list (macro will be made for this)

10. Create edge matrix in R

9. Create your network map in R.

library(igraph)

nodes2 <- read.csv("nodelist.csv", header=T, as.is=T)

edges2 <- read.csv("edgematrix.csv", header=T, row.names = 1)

links2 <- as.matrix(edges2)

net2 <- graph\_from\_incidence\_matrix(links2)

# Modify nodes – directors will show up as an orange circle with no label, organizations have no shape, just the label

V(net2)$color <- c("NA", "orange")[V(net2)$type+1]

V(net2)$shape <- c("none", "circle")[V(net2)$type+1]

V(net2)$label <- ""

V(net2)$label[V(net2)$type==F] <- nodes2$media[V(net2)$type==F]

V(net2)$label.cex=.85

V(net2)$label.font=2

plot(net2, edge.width=1.5, edge.color="dimgray",vertex.label.color="black", vertex.frame.color=NA, vertex.size=2.5)

#Export the image as a 1500x1500 tiff file

1. Spot check your data to make sure there are no mistakes. Use “table(V(net2)$type)” to double check that you have the right number of nodes and edges.