# set up working directory

setwd("~/Google Drive/RCode")

getwd()

options(scipen = 999)

# set up libraries for MDS

library(tidyverse)

library(MASS)

library(vegan)

library(magrittr)

library(ggpubr)

library(ggsci)

library(ecodist)

library(smacof)

library(scales)

library(psych)

library(psychTools)

library(maps)

remove(NMDS\_mod1)

remove(mydata\_NMDS1)

# move the University name to the row name and then delete the column to create a matrix

rownames(Stream) <- Stream$`Streaming Platform`

mydata\_NMDS <- Stream[,-1]

# Kruskal’s non-metric multidimensional scaling

# https://www.rdocumentation.org/packages/MASS/versions/7.3-56/topics/isoMDS

NMDS\_mod1 <- mydata\_NMDS %>%

dist() %>%

isoMDS() %>%

.$points %>%

as\_tibble()

# plot the NMDS plot that shows how UF compares with the other BA Centers

colnames(NMDS\_mod1) <- c("Dim 1", "Dim 2")

ggscatter(NMDS\_mod1, x = "Dim 1", y = "Dim 2",

label = rownames(mydata\_NMDS),

size = 1,

repel = TRUE)

# Are there clusters? Let's try K means clusters

clust <- kmeans(NMDS\_mod1, 3)$cluster %>%

as.factor()

# add the clusters to the mds\_model\_std tibble

NMDS\_mod1 <- NMDS\_mod1 %>%

mutate(groups = clust)

# plot the non-metric MDS plot

ggscatter(NMDS\_mod1, x = "Dim 1", y = "Dim 2",

label = rownames(mydata\_NMDS),

color="groups",

palette = "uniform",

size = 1,

ellispe = TRUE,

ellipse.type = "convex",

ellispe.alpha = 0.6,

repel = TRUE)

# create a visual with ggplot vice ggpubr

NMDS\_mod1 <- as.data.frame(NMDS\_mod1)

rownames(NMDS\_mod1) <- rownames(mydata\_NMDS)

ggplot(NMDS\_mod1, aes(`Dim 1`, `Dim 2`, label=(rownames(NMDS\_mod1)), color=groups))+

geom\_point() +

labs(col="1-Disney+ 2-Netflix

3-HBO MAX 4-Paramount+

5-Hulu 6-Amazon 7-Apple TV+ + 8-Peacock")+

geom\_text(check\_overlap = TRUE, nudge\_x = 0.02, nudge\_y = 0.25, size = 4)

# you could go back into your mydata\_NMDS data frame and change one feature at a time to change the graphic outcome

# you could also include different labels on this chart.

remove(dCities)

A screenshot of a computer

Description automatically generated