Survey Analysis Refactored

Ariella Fuzaylov

3/13/2021

Loading Data and Update Header

```
my.data=read.csv("Online Recipe Sharing.csv", header=TRUE)
colnames(my.data)
```

```
##  [1] "Timestamp"
##  [2] "What.is.your.age."
##  [3] "Who.is.the.usual.meal.prepper.in.your.household."
##  [4] "Do.you..or.any.household.member.you.share.meals.with..have.any.dietary.restrictions."
##  [5] "How.often.do.you.eat.food.prepared.at.home."
##  [6] "When.you.are.cooking.using.a.recipe..what.format.do.you.view.the.recipe.in..Select.all.that.app
##  [7] "When.you.are.looking.for.a.recipe..what.websites.do.you.visit.the.most.."
##  [8] "Which.website.do.you.enjoy.using.for.finding.recipes."
##  [9] "Optional..Explain.what.you.like.about.these.websites."
## [10] "Which.website.do.you.NOT.enjoy.using.for.finding.recipes."
## [11] "Optional..Explain.what.you.dislike.about.these.websites."
## [12] "When.deciding.what.to.cook..how.often.do.you.search.for.a.specific.recipe.in.the.search.bar.pr
## [13] "How.often.do.you.use.the.search.bar.to.find.a.recipe.you.have.used.in.the.past."
## [14] "When.deciding.on.a.dish.to.prepare..how.often.do.you.browse.available.articles.or.recipe.colle
## [15] "When.deciding.what.to.cook..how.many.recipes.do.you.typically.click.on.before.you.find.a.suita
## [16] "Do.the.websites.you.visit.when.looking.for.inspiration.on.what.to.cook.differ.from.the.website
## [17] "When.you.are.looking.for.cooking.inspiration..what.websites.do.you.visit.the.most.."
## [18] "Which.websites.do.you.enjoy.using.when.looking.for.cooking.inspiration."
## [19] "Optional..Explain.what.you.like.about.these.websites..1"
## [20] "Which.websites.do.you.NOT.enjoy.using.when.looking.for.cooking.inspiration."
## [21] "Optional..Explain.what.you.dislike.about.these.websites..1"
## [22] "When.looking.for.recipe.recommendations.or.reviews.where.do.you.look..Select.all.that.apply"
## [23] "What.source.of.recommendations.or.reviews.is.most.likely.to.influence.your.recipe.choice..Sele
## [24] "How.often.do.you.try.a.new.recipe.based.on.a.recommendation.or.review.from.a.trusted.source."
## [25] "How.often.do.you.seek.out.a.recipe.recommendation.or.review.from.a.trusted.source."
## [26] "How.often.do.you.recommend.or.review.a.recipe.you.have.made."
## [27] "How.often.do.you.save.a.recipe.to.use.later."
## [28] "When.saving.recipes.to.use.later..what.tools.do.you.use."
## [29] "How.often.do.you.make.a.recipe.exactly.as.written..As.opposed.to.finding.a.recipe.that.exactly
## [30] "If.you.make.modifications.to.a.recipe.what.factors.influence.your.modifications..Select.all.tha
## [31] "How.often.do.you.take.note.of.a.modification.you.have.made.to.a.recipe."
## [32] "How.do.you.take.note.of.modifications.you.have.made.to.a.recipe."
## [33] "Are.you.satisfied.with.the.available.options.for.recording.recipe.notes."
## [34] "Would.you.like.to.take.digital.notes.given.better.note.taking.options."
## [35] "How.often.do.you.discuss.a.recipe.you.have.made."
```

```
## [36] "How.often.do.you.read.the.discussion.of.a.recipe."
## [37] "What.medium.do.you.primarily.use.to.discuss.recipes."
## [38] "What.do.you.like.most.about.the.discussion.platforms.you.use."
## [39] "Just.looking.at.the.layout..choose.the.option.you.like.the.most."
## [40] "Just.looking.at.the.layout..choose.the.option.you.like.the.most..1"
## [41] "Just.looking.at.the.layout..choose.the.option.you.like.the.most..2"
## [42] "Just.looking.at.the.layout..choose.the.option.you.like.the.most..3"
## [43] "Just.looking.at.the.layout..choose.the.option.you.like.the.most..4"
## [44] "Just.looking.at.the.layout..choose.the.option.you.like.the.most..5"
```

```
colnames(my.data)<-c("Timestamp", "Age", "Primary.Meal.Prepper", "Household.Dietary.Restriction",
"Home.Cooking.Frequency",
"Primary.Recipe Format",
"Primary.Recipe.Website",
"Enjoyed.Website.Searching", "Comments.Enjoyed.Website.Searching", "NOT.Enjoyed.Website.Searching", "Co
"Previous.Recipe.Search.Frequency",
"Browsing.While.Searching.Frequecny",
"Click.Rate",
"Search.Browse.Same.Websites",
"Primary.Browsing.Website",
"Enjoyed.Website.Browsing",
"Comments.Enjoyed.Website.Browsing", "NOT.Enjoyed.Website.Browsing", "Comments.NOT.Enjoyed.Website.Brows
"Source.of.Influential.Reviews", "Frequency.Reviews.Effect.Behavior",
"Frequency.Seek.Out.Review",
"Frequency.of.Review",
"Frequency.of.Recipe.Saving",
"Method.of.Recipe.Saving",
"Modification.Frequency",
"Modification.Influence.Factors",
"Modification.Record.Frequency",
"Modification.Record.Method", "Satisfaction.with.Available.Record.Methods",
"Interest.in.Improved.Record.Method",
"Frequency.of.Recipe.Discussion", "Frequency.of.Reading.Discussion",
"Primary.Discussion.Medium", "Enjoyed.Features.of.Discussion.Mediums", "Ingredients.L.V.Above",
"Ingredients.L.Comments.Inline.V.Below", "Ingredients.Above.Comments.Below.V.Inline", "Ingredients.By.S
"Ingredients.By.Step.V.Scroll.L",
"Ingredients.Above.V.Scroll.L")
```

Re-Factor Data

```
my.data.factored<-my.data
my.data.factored$Age<-as.factor(my.data$Age)

my.data.factored$Primary.Meal.Prepper<-as.factor(my.data.factored$Primary.Meal.Prepper)

my.data.factored$Household.Dietary.Restriction<-as.factor(my.data.factored$Household.Dietary.Restrictio

my.data.factored$Home.Cooking.Frequency<-as.factor(my.data.factored$Home.Cooking.Frequency)

my.data.factored<- mutate(my.data.factored,Primary.Meal.Prepper = fct_collapse(Primary.Meal.Prepper,
                                                                  Respondent = c("You", "I cook for myself"
                                                                  other_level = "Other"),
```

```
                  Household.Dietary.Restriction=fct_collapse(Household.Dietary.Restriction,
                                                             No="None",
                                                              other_level = "Yes"),
                  Home.Cooking.Frequency=fct_collapse(Home.Cooking.Frequency,Daily=c("Almost every meal
                                                     Weekly=c("Several times a week","Once or twice a
                                                     Monthly=c("Once or twice a month")))
```

Pre-Process Text Data

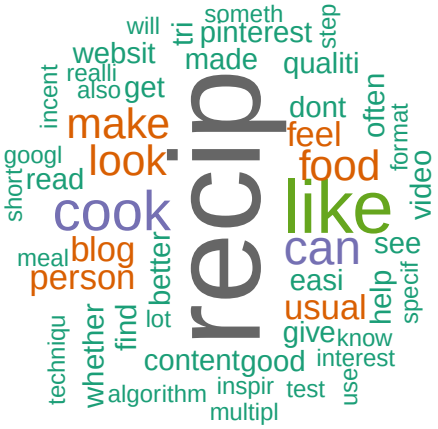
```
Pre.process <- function(charlist){
  charlist<-charlist[charlist!=""]
  corp<-VCorpus(VectorSource(charlist))

  corp <- tm_map(corp, content_transformer(tolower))
  corp <- tm_map(corp, removePunctuation)

  corp<-tm_map(corp, content_transformer(removeWords), stopwords('english'))
  corp<-tm_map(corp,stemDocument)
  corp <- tm_map(corp, stripWhitespace)

  return(corp)
}
Comments.Enjoyed.Searching.corp<-Pre.process(my.data[,9])
Comments.NOT.Enjoyed.Searching.corp<-Pre.process(my.data[,11])
Comments.Enjoyed.Browsing.corp<-Pre.process(my.data[,19])
Comments.NOT.Enjoyed.Browsing.corp<-Pre.process(my.data[,21])
```

Create Word Cloud

```
print("Enjoy Searching Responces")
```

```
## [1] "Enjoy Searching Responces"
```

```
cp <- brewer.pal(8,"Dark2")
wordcloud(words = Comments.Enjoyed.Searching.corp, scale=c(4,0.5), max.words=50,min.freq = 0,random.ord
 rot.per=0.25, colors=cp)
```




```
print("NOT Enjoy Searching Responces")
```

```
## [1] "NOT Enjoy Searching Responces"
```

```
wordcloud(words = Comments.NOT.Enjoyed.Searching.corp, scale=c(4,0.5), max.words=50,min.freq = 0,random
 rot.per=0.25, colors=cp)
```


```
print(" Enjoy Browsing Responces")
```

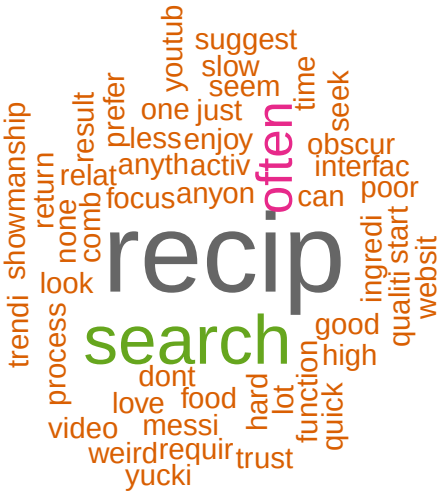
```
## [1] " Enjoy Browsing Responces"
```

```
wordcloud(words = Comments.Enjoyed.Browsing.corp, scale=c(2.5,0.25), max.words=50,min.freq = 0,random.o
 rot.per=0.25, colors=cp)
```


```
print("NOT Enjoy Browsing Responces")
```

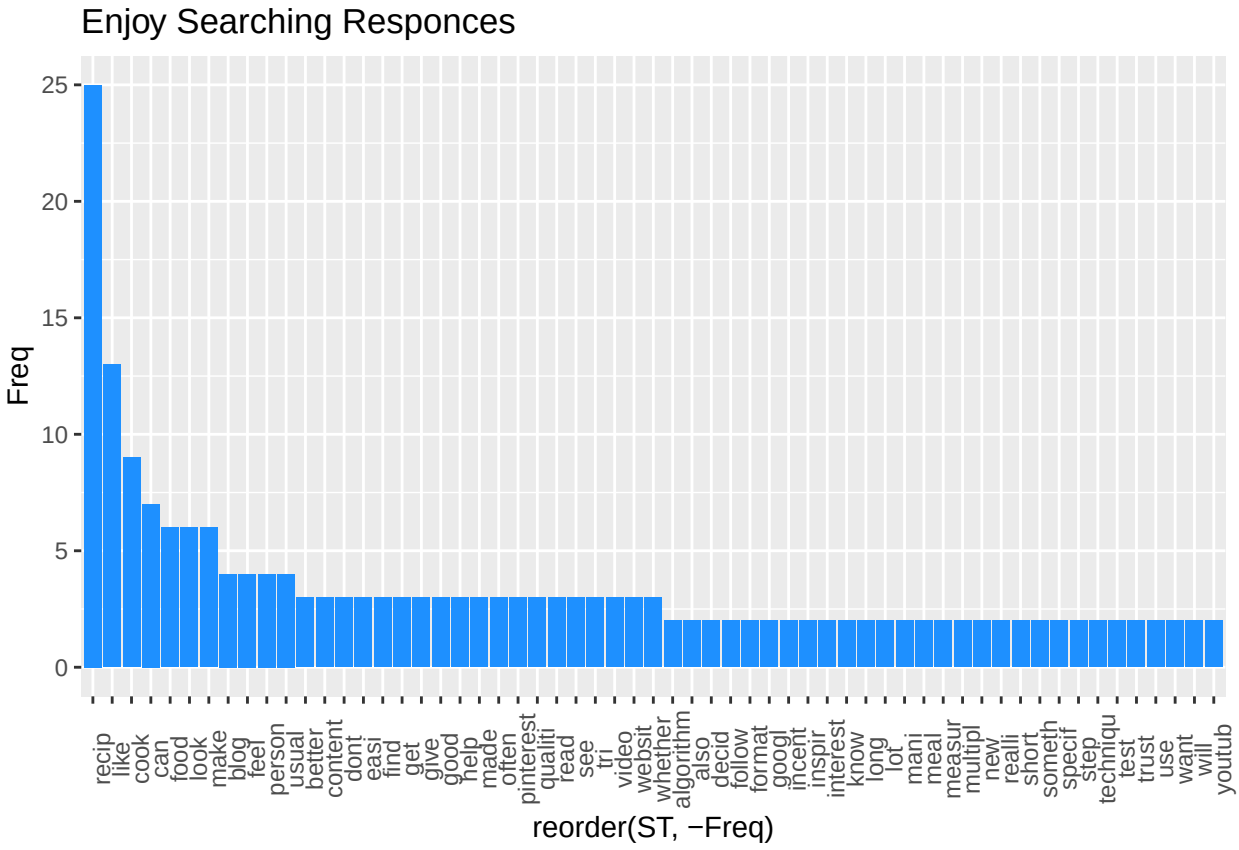
```
## [1] "NOT Enjoy Browsing Responces"
```

```
wordcloud(words = Comments.NOT.Enjoyed.Browsing.corp, scale=c(3.5,0.25),min.freq = 0, max.words=50,rando
 rot.per=0.25, colors=cp)
```

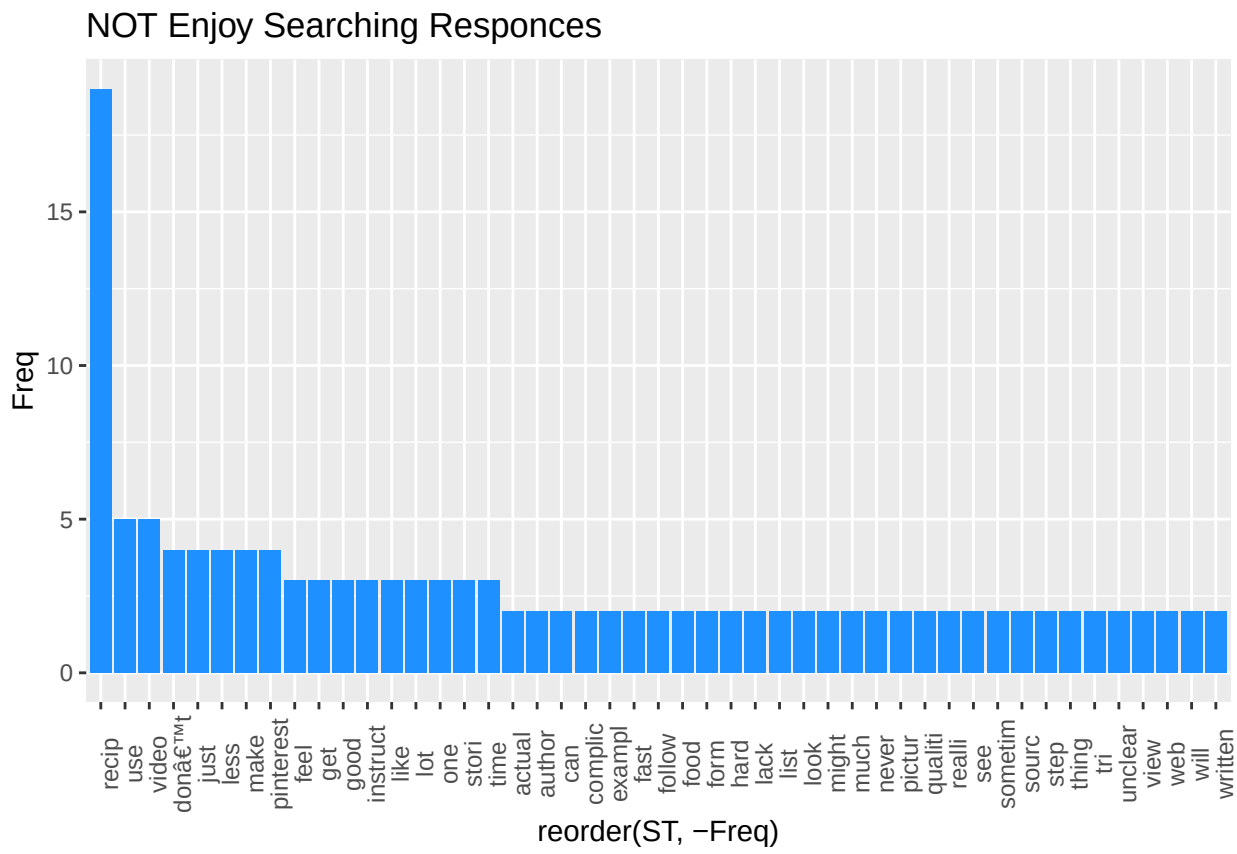


Create Charts

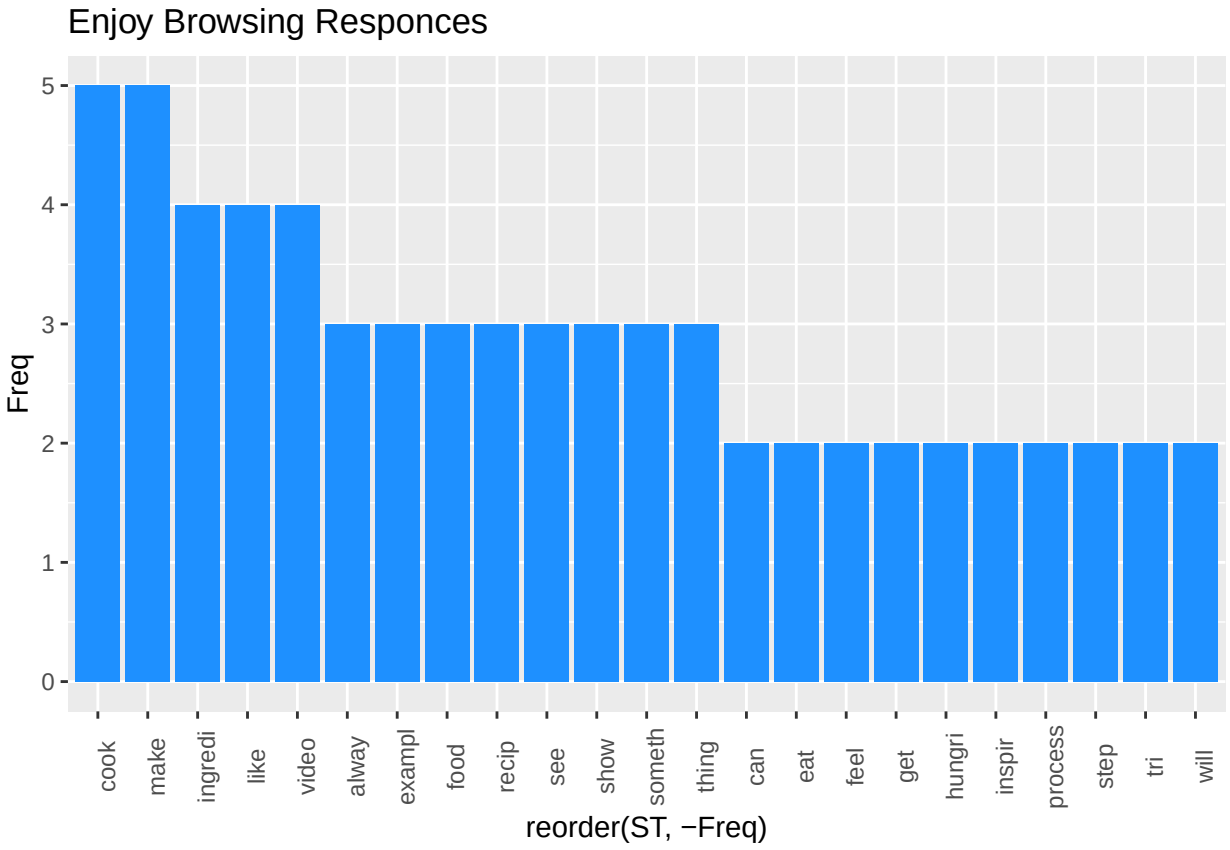
```
freqchart <- function(corp){
 ## Drop entries that only occur once. This makes the chart easier to read
  myTdm <- as.matrix(TermDocumentMatrix(corp))
  FreqMat <- data.frame(ST = rownames(myTdm),
                        Freq = rowSums(myTdm),
                        row.names = NULL)%>%arrange(desc(Freq))
  FreqMat<-FreqMat[!(FreqMat$Freq == 1),]
  FreqMat
  p<-ggplot(data=FreqMat, aes(x=reorder( ST, -Freq), y=Freq)) +
    geom_bar(stat="identity", fill="dodger blue")+
    theme(axis.text.x = element_text(angle = 90))
  return(p)
}
Comments.Enjoyed.Searching.Plot<-freqchart(Comments.Enjoyed.Searching.corp)
Comments.Enjoyed.Searching.Plot + ggtitle("Enjoy Searching Responces")
```



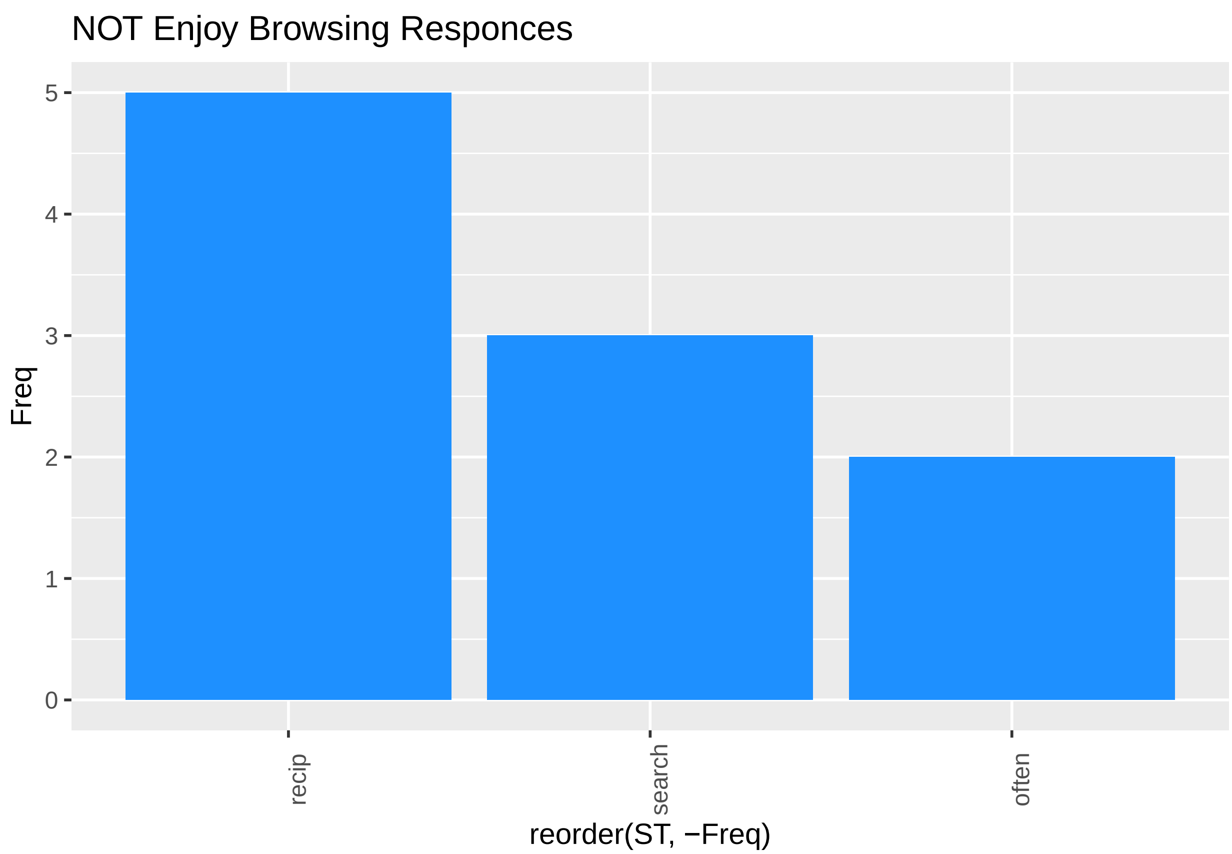

```
Comments.NOT.Enjoyed.Searching.Plot<-freqchart(Comments.NOT.Enjoyed.Searching.corp)
Comments.NOT.Enjoyed.Searching.Plot + ggtitle("NOT Enjoy Searching Responces")
```




```
Comments.Enjoyed.Browsing.Plot<-freqchart(Comments.Enjoyed.Browsing.corp)
Comments.Enjoyed.Browsing.Plot + ggtitle("Enjoy Browsing Responces")
```




```
Comments.NOT.Enjoyed.Browsing.Plot<-freqchart(Comments.NOT.Enjoyed.Browsing.corp)
Comments.NOT.Enjoyed.Browsing.Plot + ggtitle("NOT Enjoy Browsing Responces")
```



For the sake of this analysis any website that has a test kitchen that creates editorial content or is able to curate content from proffesional sources is a magazine, a a website with one or two people testing recipes is a blog, and a website that allows users to contribute their own recipes is community based. The information for this classification is found on the website's about page. Additionally, media such as cookbooks and podcasts are classified under Influencers due to their personality driven nature.

```
my.data.selected<-my.data.factored[c(7,8,10,17,18,20,22,23,28,37)]
head(my.data.selected)
```

```
##
## 1                                                                                                    Onl
## 2
## 3 YouTube;Online Cooking Magazines (New York Times, Bon Appetit, etc.);Blogs (Budget Bytes, Smitten K
## 4
## 5
## 6
##
## 1                                 Online Cooking Magazines (New York Times, Bon Appetit, etc.);Blogs
## 2
## 3 Online Cooking Magazines (New York Times, Bon Appetit, etc.);Blogs (Budget Bytes, Smitten Kitchen,
## 4                                                                                     Online Cooking M
## 5
## 6                                 Online Cooking Magazines (New York Times, Bon Appetit, etc.);Blogs
##
## 1
## 2 Facebook;Reddit;TikTok;Pinterest;YouTube;Online Cooking Magazines (New York Times, Bon Appetit, etc
```

```
## 3
## 4
## 5
## 6
##                                                                                                     Primary.Bro
## 1  Online Cooking Magazines (New York Times, Bon Appetit, etc);Blogs (Budget Bytes, Smitten Kitchen,
## 2
## 3                               Reddit;YouTube;Online Cooking Magazines (New York Times, Bon Appetit
## 4 YouTube;Online Cooking Magazines (New York Times, Bon Appetit, etc);Blogs (Budget Bytes, Smitten K
## 5
## 6
##                                                                                                      Enjoyed.We
## 1  Online Cooking Magazines (New York Times, Bon Appetit, etc.);Blogs (Budget Bytes, Smitten Kitchen
## 2
## 3
## 4 YouTube;Online Cooking Magazines (New York Times, Bon Appetit, etc.);Blogs (Budget Bytes, Smitten
## 5
## 6
##                                      NOT.Enjoyed.Website.Browsing
## 1                           Facebook;Reddit;TikTok;Pinterest;YouTube
## 2
## 3 Facebook;Community Based Cooking Websites (AllRecipes, etc.);Google
## 4                                   Facebook;Reddit;TikTok;Pinterest
## 5
## 6
##
## 1                                      Blogs (Budget Bytes, Smitten Kitchen, etc.);Online Cooking Ma
## 2
## 3                                                       Immediate family / Friends;Groups on social
## 4 Blogs (Budget Bytes, Smitten Kitchen, etc.);Online Cooking Magazines (New York Times, Bon Appetit,
## 5                                                                                  Online Cooking Ma
## 6           Immediate family / Friends;Blogs (Budget Bytes, Smitten Kitchen, etc.);Online Cooking Ma
##                                                                                                  So
## 1                     Blogs (Budget Bytes, Smitten Kitchen, etc.);Online Cooking Magazines (New Yor
## 2
## 3
## 4 Immediate family / Friends;Online Cooking Magazines (New York Times, Bon Appetit, etc.);Recipe Com
## 5
## 6                                      Immediate family / Friends;Online Cooking Magazines (New Yor
##                  Method.of.Recipe.Saving
## 1
## 2                                   None
## 3                      Browser Bookmarks
## 4 Browser Bookmarks;Digital filing system
## 5                                 Memory
## 6                         search history
##                                                                                                        Primar
## 1
## 2
## 3                                                                                         In person conve
## 4                                                                          Community Based Cooking Websites
## 5
## 6 Online Cooking Magazines (New York Times, Bon Appetit, etc);Blogs (Budget Bytes, Smitten Kitchen,
```

```
variables<-c()

 for (i in 1:ncol(my.data.selected)){
  temp<- my.data.selected[i]
  temp<-separate_rows(temp,1, sep = ";")
  variables<-append(variables,temp[[1]])
  variables<-unique(variables)
  data.frame(variables)
 }
variables
```

```
##  [1] "Online Cooking Magazines (New York Times, Bon Appetit, etc.)"
##  [2] "Blogs (Budget Bytes, Smitten Kitchen, etc.)"
##  [3] "Google"
##  [4] "YouTube"
##  [5] "Community Based Cooking Websites (AllRecipes, etc.)"
##  [6] "Edited recipe websites (e.g. Serious Eats)"
##  [7] "Allrecipes "
##  [8] "Pinterest"
##  [9] "Cooks I follow their websites , ie againstallgrain"
## [10] "TikTok"
## [11] "King Arthur Flour"
## [12] "Facebook"
## [13] "Reddit"
## [14] "epicurious"
## [15] "betty crocker’s website"
## [16] "Serious Eats, Americaâ\200\231s Test Kitchen"
## [17] "Serious Eats!"
## [18] "Instagram"
## [19] "King Arthur Flour, NYTimes, NPR"
## [20] "My family and friends directly"
## [21] "Betty Crocker’s website"
## [22] ""
## [23] "Any website that buries the recipe under tons of useless text"
## [24] "Online Cooking Magazines (New York Times, Bon Appetit, etc)"
## [25] "Instagram "
## [26] "instagram"
## [27] "I do not dislike"
## [28] "None"
## [29] "Immediate family / Friends"
## [30] "Groups on social media"
## [31] "Recipe Comments/ Other user’s reviews"
## [32] "Influencers (Instagram, YouTube, Tiktok, etc.)"
## [33] "Cookbooks, podcasts"
## [34] "Flavcity on facebook"
## [35] "Browser Bookmarks"
## [36] "Digital filing system"
## [37] "Memory"
## [38] "search history"
## [39] "Save function built into your website of choice"
## [40] "Physical filing system"
## [41] "I donâ\200\231t "
## [42] "brain"
```

```
## [43] "memory"
## [44] "I tell myself I won't forget how to make this recipe and then I do :("
## [45] "tiktok favorites"
## [46] "In person conversation with others"
## [47] "Verbal"
## [48] "Word of mouth"
## [49] "Discord"
## [50] "With friends"
## [51] "Friends"
## [52] "Text with friends"
## [53] "Google Docs"
## [54] "Messages with friends and family "
## [55] "talking to people"
## [56] "Actual conversation with a human in person or on the phone"
## [57] "talking"
## [58] "discussing them with friends"
## [59] "Talking to friends and family"
## [60] "Chatting with pals"
## [61] "Privately with family/friends"
## [62] "I don't really. I read comments and will directly give recs to friends"
## [63] "Various channels of communication (i.e. personal text, group chats, etc.)"
## [64] "i don't"
## [65] "I text people, or I check reviews on google"
## [66] "discuss with family and friends "
## [67] "conversations/texts"
## [68] "Messaging platforms"
## [69] "don't really do this"
```

```
cleaned.variables<-c(
  "Mags",
  "Blogs",
  "Google",
  "Youtube",
  "Community Based" ,
  "Mags",
  "Community Based" ,
  "Pinterest",
  "Blogs",
  "TikTok",
  "Mags",
  "Facebook",
  "Reddit",
  "Mags",
  "Mags",
  "Mags",
  "Mags",
  "Instagram",
  "Mags",
  "Friends/Family",
  "Blogs",
  "NA",
  "Blogs",
  "Mags",
  "Instagram",
```

```
  "Instagram",
  "None",
  "None",
  "Friends/Family",
  "Online Groups",
  "Other Users",
  "Influencers",
  "Influencers",
  "Facebook",
  "Browser Bookmarks",
  "Digital Filing",
  "Memory",
  "Search History",
  "Save Function",
  "Physical Filing",
  "None",
  "Memory",
  "Memory",
  "Memory",
  "Save Function",
  "Verbal",
  "Verbal",
  "Verbal",
  "Digital Chat",
  "Verbal",
  "Verbal",
  "Digital Chat",
  "Google Docs",
  "Digital Chat",
  "Verbal",
  "Verbal",
  "Verbal",
  "Verbal",
  "Verbal",
  "Verbal",
  "Verbal",
  "Verbal",
  "Digital Chat",
  "None",
  "Digital Chat",
  "Verbal",
  "Digital Chat",
  "Digital Chat",
  "None"
)
names(cleaned.variables)<-variables
head(cleaned.variables)
```

```
## Online Cooking Magazines (New York Times, Bon Appetit, etc.)
##                                                       "Mags"
##                  Blogs (Budget Bytes, Smitten Kitchen, etc.)
##                                                      "Blogs"
##                                                       Google
```

```
##                                                  "Google"
##                                                   YouTube
##                                                 "Youtube"
##          Community Based Cooking Websites (AllRecipes, etc.)
##                                              "Community Based"
##                   Edited recipe websites (e.g. Serious Eats)
##                                                    "Mags"
```

The Average User

```
Numeric.data<-my.data.factored %>% select(where(is.numeric))

my.data.factored%>%group_by(Age,Primary.Meal.Prepper, Household.Dietary.Restriction,Home.Cooking.Freque
```

```
## # A tibble: 17 x 16
## # Groups:   Age, Primary.Meal.Prepper, Household.Dietary.Restriction [11]
##    Age     Primary.Meal.Pre~ Household.Dietar~ Home.Cooking.Fr~ Recipe.Search.B~
##    <fct>   <fct>             <fct>             <fct>                       <dbl>
##  1 18 - 2~ Respondent        No                Daily                        2.71
##  2 18 - 2~ Respondent        No                Weekly                       3
##  3 18 - 2~ Respondent        Yes               Daily                        3
##  4 18 - 2~ Respondent        Yes               Monthly                      3
##  5 18 - 2~ Respondent        Yes               Weekly                       2.67
##  6 18 - 2~ Other             No                Daily                        3
##  7 18 - 2~ Other             No                Weekly                       2
##  8 18 - 2~ Other             Yes               Daily                        2.33
##  9 18 - 2~ Other             Yes               Monthly                      4.5
## 10 25 - 3~ Respondent        No                Daily                        4
## 11 25 - 3~ Respondent        Yes               Daily                        4.5
## 12 25 - 3~ Other             No                Daily                        4
## 13 25 - 3~ Other             No                Weekly                       1
## 14 35 - 4~ Respondent        Yes               Daily                        2
## 15 45 - 5~ Respondent        No                Daily                        2
## 16 55 - 6~ Respondent        No                Daily                        3.5
## 17 55 - 6~ Respondent        Yes               Daily                        3.5
## # ... with 11 more variables: Previous.Recipe.Search.Frequency <dbl>,
## #   Browsing.While.Searching.Frequecny <dbl>,
## #   Frequency.Reviews.Effect.Behavior <dbl>, Frequency.Seek.Out.Review <dbl>,
## #   Frequency.of.Review <dbl>, Frequency.of.Recipe.Saving <dbl>,
## #   Modification.Frequency <dbl>, Modification.Record.Frequency <dbl>,
## #   Satisfaction.with.Available.Record.Methods <dbl>,
## #   Frequency.of.Recipe.Discussion <dbl>, Frequency.of.Reading.Discussion <dbl>
```

```
# summarise(q1= quantile(probs = c(.25),na.rm=TRUE), med= median())
```

```
my.data.clean<-my.data.factored[-c(9,11,19,21)]
search.data<-my.data.clean[c(2,3,4,5,7,8,9,11,12,13)]
search.data<-data.frame(search.data)
colnames(search.data)<-c("Age", "Meal.Prepper","Dietary.Restriction","Home.Cook.Freq","Primary","Enjoye
search.data<-tibble::rowid_to_column(search.data, "ID")
search.data<- search.data%>% replace_na(list(NOT.Enjoyed
="None"))
```

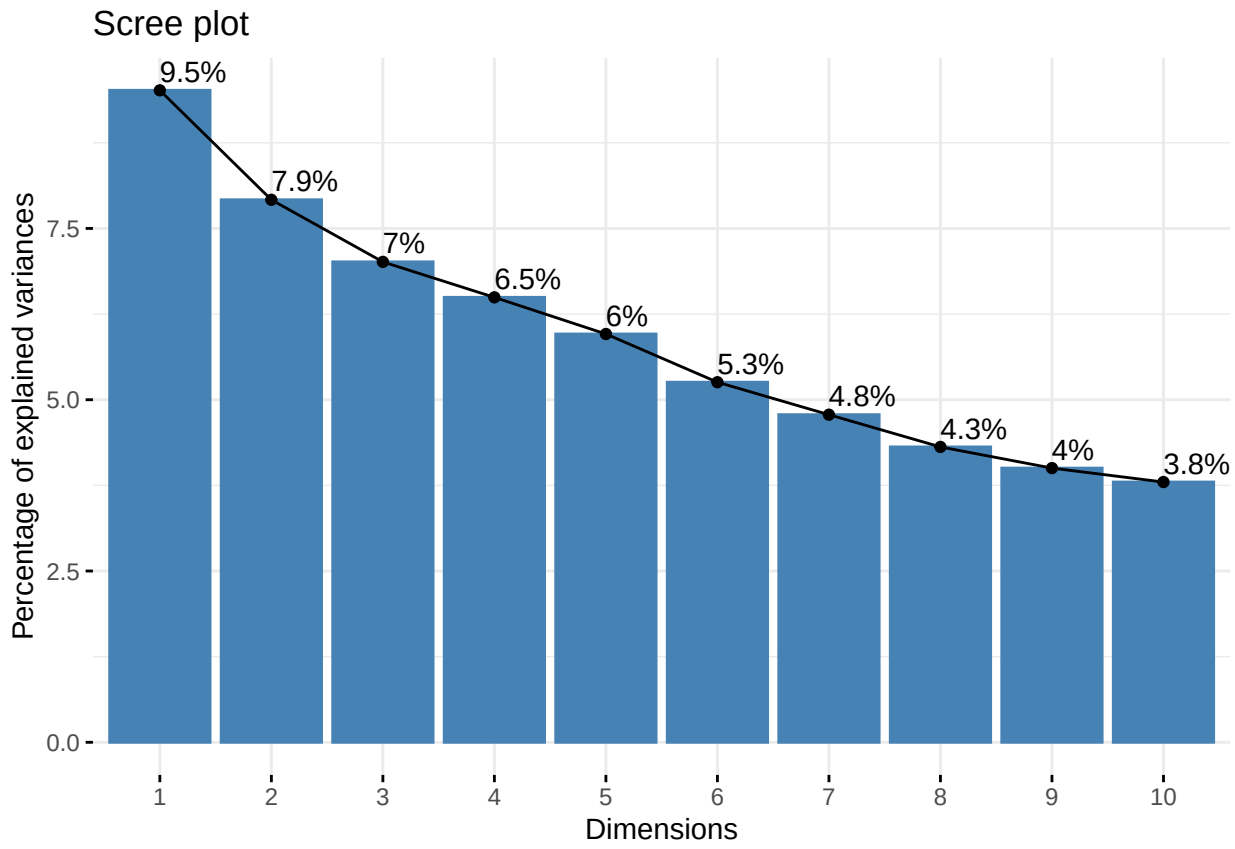
```r
dummies<-function(search.data, to.clean){
  col.names<-c(names(search.data))
  col.names<-col.names[col.names!=to.clean]
  search.data.clean<- search.data%>% separate_rows(to.clean, sep = ";")

  search.data.clean[[to.clean]]<-as.character(cleaned.variables[search.data.clean[[to.clean]]])

  search.data.dummies<-search.data.clean%>%
    select(to.clean)%>%
    dummy()%>%
    bind_cols(search.data.clean)%>%
    select(-to.clean)%>%
     pivot_longer(cols=-col.names, names_to = "key", values_to = "value")%>%
     filter(value!=0)%>%
    unique()%>%
   spread(key, value, fill = 0)

}
cleaned<-dummies(search.data,c("Primary"))
```

```
## Note: Using an external vector in selections is ambiguous.
## i Use ‘all_of(to.clean)‘ instead of ‘to.clean‘ to silence this message.
## i See <https://tidyselect.r-lib.org/reference/faq-external-vector.html>.
## This message is displayed once per session.
```

```
## Note: Using an external vector in selections is ambiguous.
## i Use ‘all_of(col.names)‘ instead of ‘col.names‘ to silence this message.
## i See <https://tidyselect.r-lib.org/reference/faq-external-vector.html>.
## This message is displayed once per session.
```

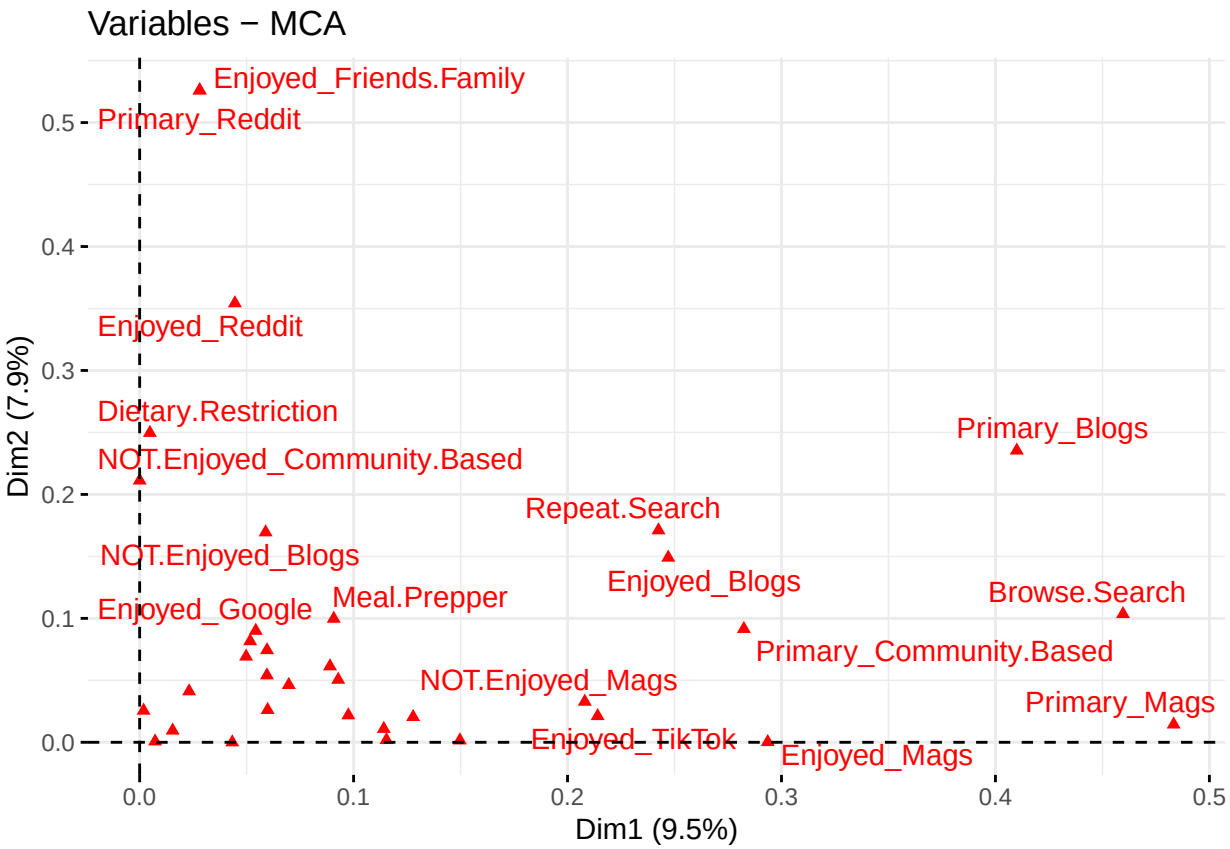
```r
cleaned<-dummies(cleaned,c("Enjoyed"))
cleaned<-dummies(cleaned, c("NOT.Enjoyed"))
cleaned=cleaned%>%mutate(Repeat.Search= cut(Repeat.Search, c(0, 1.2, 2.5,3.5,4.5,5.5),right=FALSE,labels

cols<-names(cleaned)
cleaned.factored<-lapply(cleaned[cols], as.factor)
```

```r
cleaned.search.data<-data.frame(cleaned[-c(1)])
search.MCA=MCA(cleaned.search.data,graph=FALSE)
fviz_screeplot(search.MCA,addlabels=T)
```

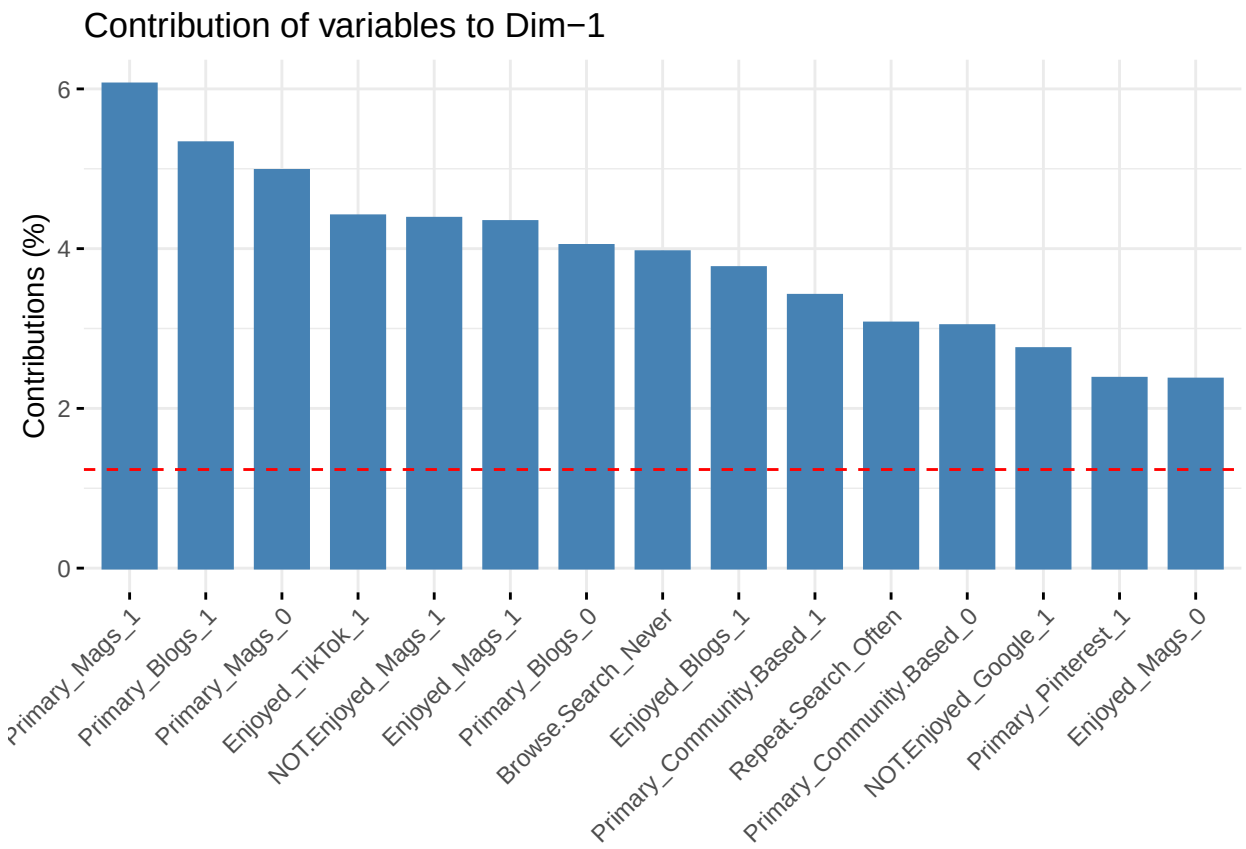



```
fviz_mca_var(search.MCA, choice = "mca.cor", repel = TRUE,
             ggtheme = theme_minimal())
```

```
## Warning: ggrepel: 18 unlabeled data points (too many overlaps). Consider
## increasing max.overlaps
```

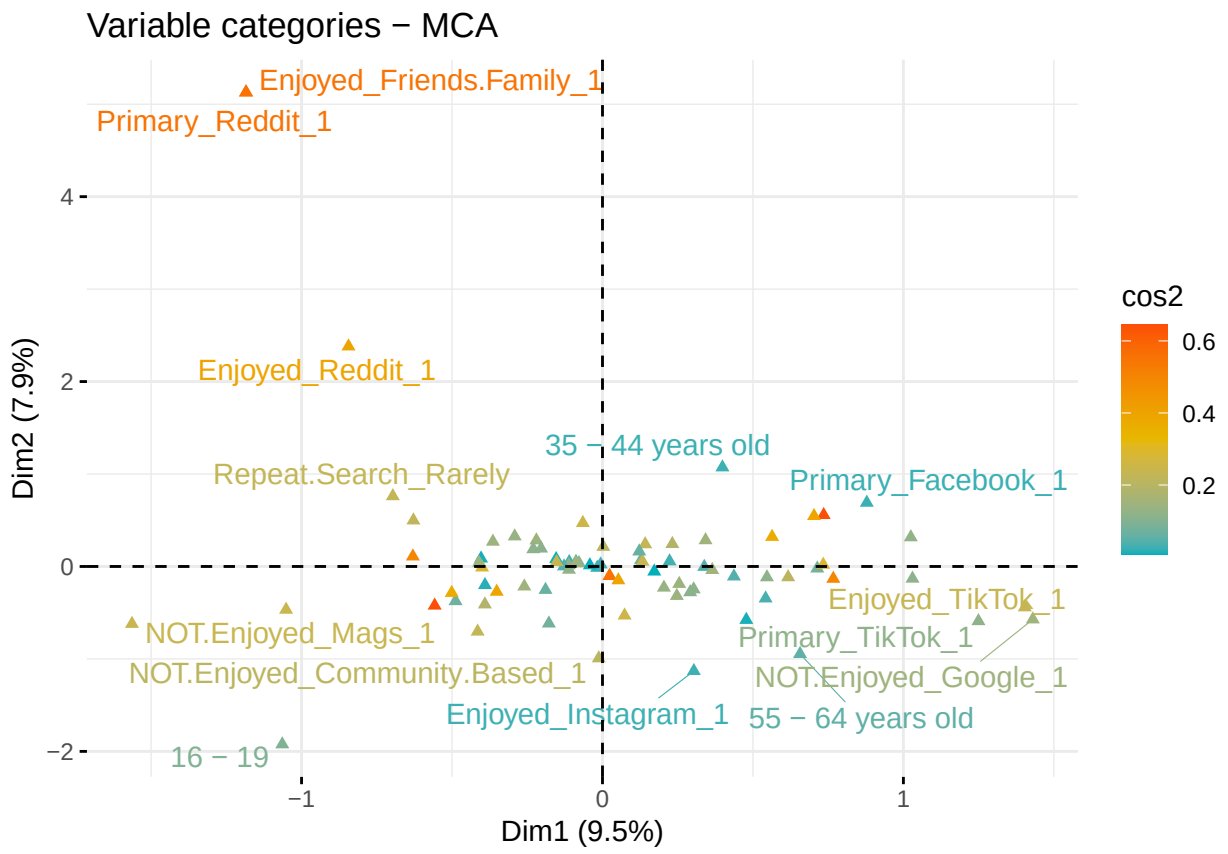



```
fviz_contrib(search.MCA, choice = "var", axes = 1, top = 15)
```




```
fviz_mca_var(search.MCA, col.var = "cos2",
             gradient.cols = c("#00AFBB", "#E7B800", "#FC4E07"),
             repel = TRUE, ggtheme = theme_minimal())
```

```
## Warning: ggrepel: 67 unlabeled data points (too many overlaps). Consider
## increasing max.overlaps
```

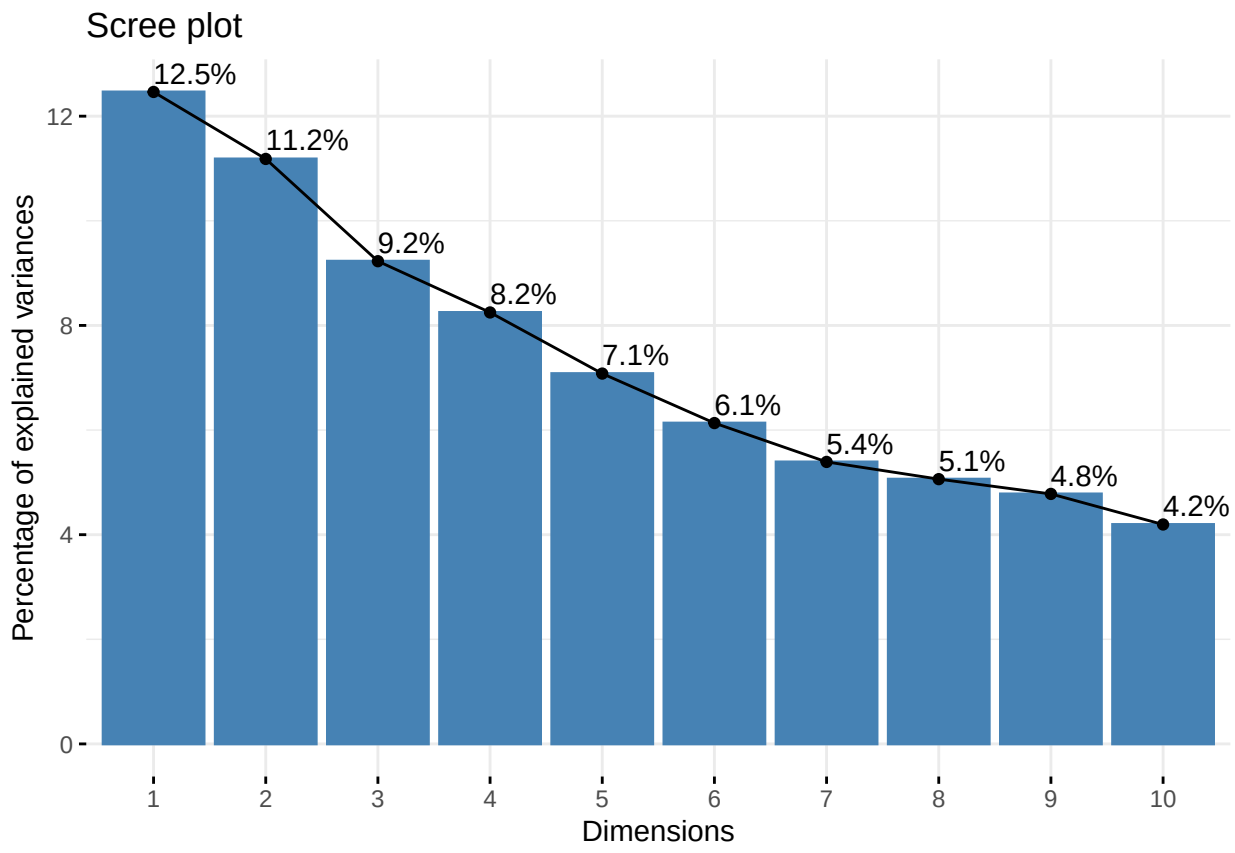


Turn MCA/ cleaning into a functionso we can group by different things

```
clean.mca<-function(search.data){
  search.data<-tibble::rowid_to_column(search.data, "ID")
  search.data<- search.data%>% replace_na(list(NOT.Enjoyed
  ="None"))
  cleaned<-dummies(search.data,c("Primary"))
  cleaned<-dummies(cleaned,c("Enjoyed"))
  cleaned<-dummies(cleaned, c("NOT.Enjoyed"))
  # cleaned=cleaned%>%mutate(Repeat.Search= cut(Repeat.Search, c(0, 1.2, 2.5,3.5,4.5,5.5),right=FALSE,
  #                                             labels=c("Never","Rarely","Sometimes", "Often","Always"
                          # Browse.Search = cut(Browse.Search, c(0, 1.2, 2.5,3.5,4.5,5.5),right=FALSE,
                          #                     labels=c("Never","Rarely","Sometimes", "Often","Always
                          # )

  cols<-names(cleaned)
  cleaned.factored<-lapply(cleaned[cols], as.factor)
  cleaned.search.data<-data.frame(cleaned[-c(1)])
  return(cleaned.search.data)
}
```

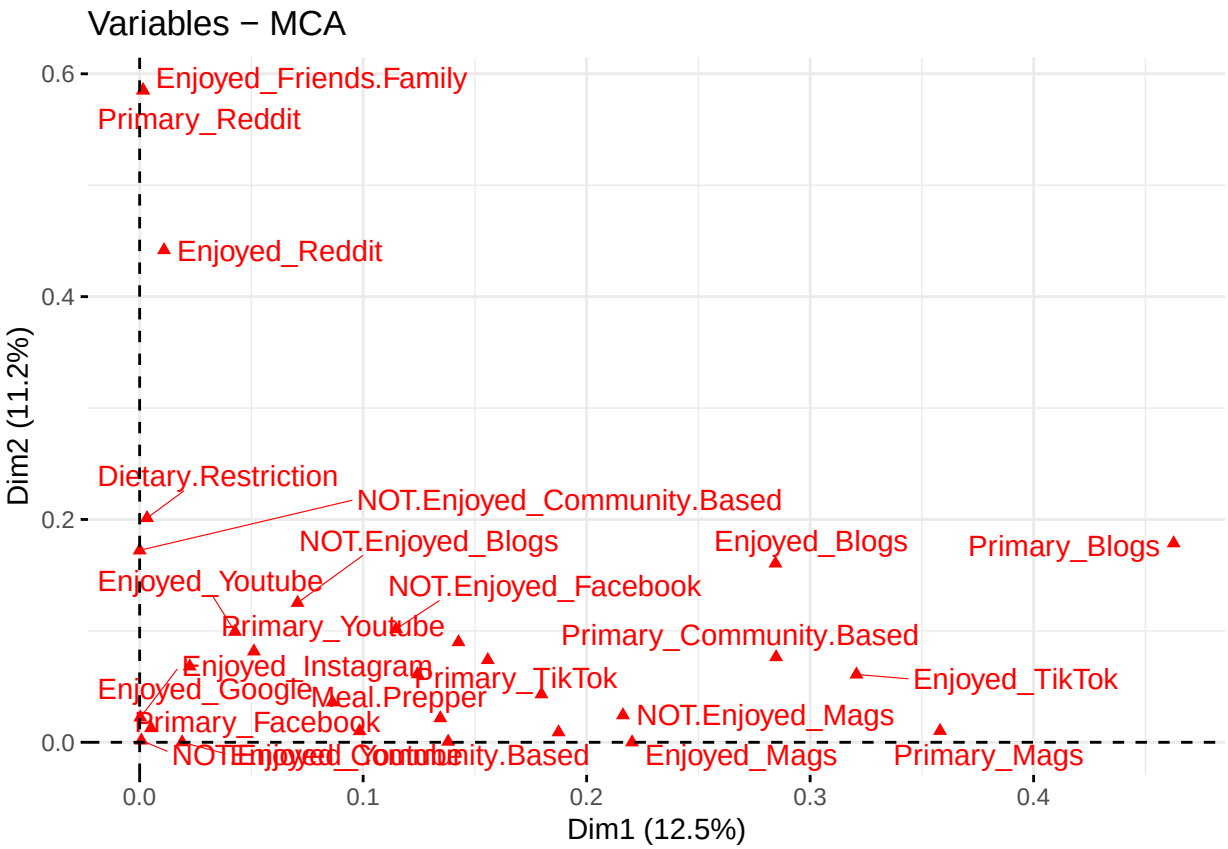
```
my.data.clean<-my.data.factored[-c(9,11,19,21)]
search.data<-my.data.clean[c(3,4,7,8,9)]
search.data<-data.frame(search.data)
colnames(search.data)<-c( "Meal.Prepper","Dietary.Restriction","Primary","Enjoyed","NOT.Enjoyed")
cleaned.unfactored<-clean.mca(search.data)
mca.unfactored<-MCA(cleaned.unfactored,graph=FALSE)
```

```
fviz_screeplot(mca.unfactored,addlabels=T)
```

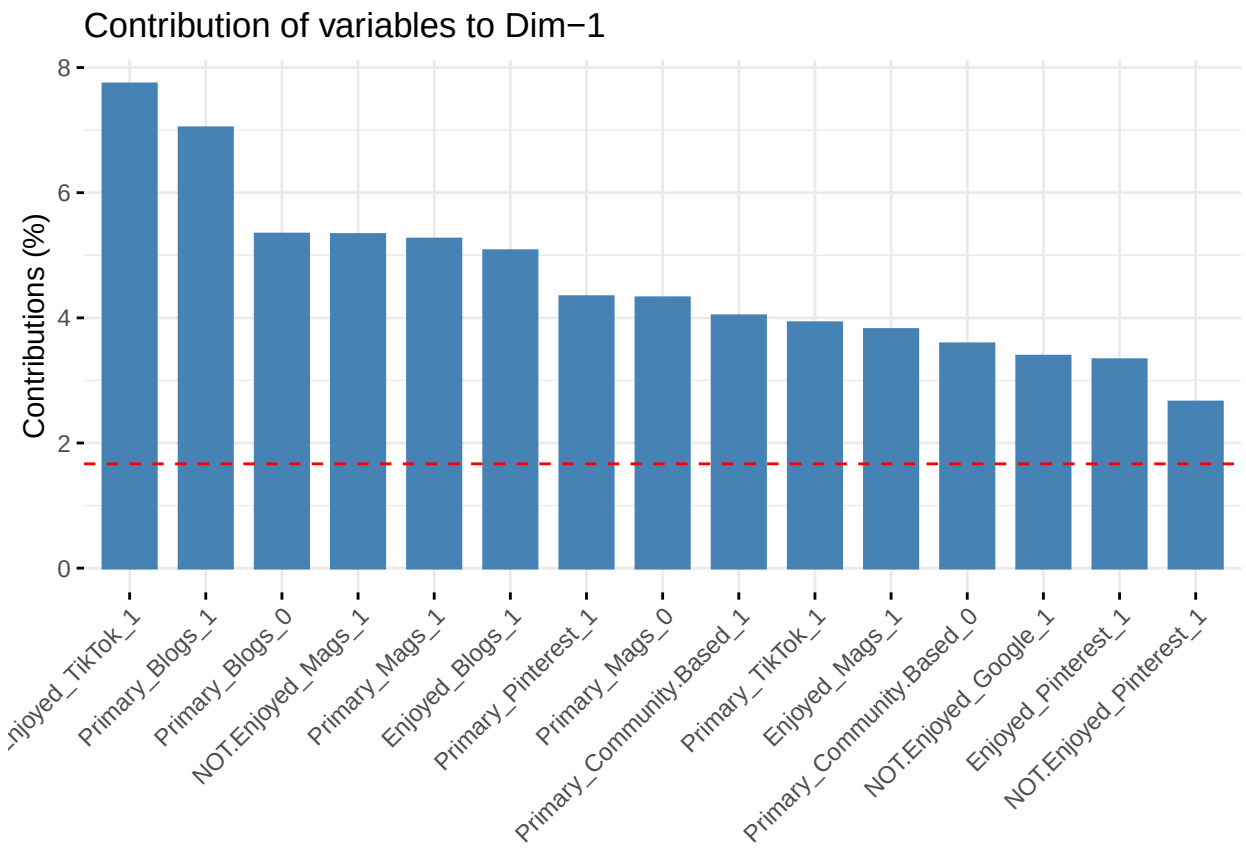



```
fviz_mca_var(mca.unfactored, choice = "mca.cor", repel = TRUE,
             ggtheme = theme_minimal())
```

```
## Warning: ggrepel: 7 unlabeled data points (too many overlaps). Consider
## increasing max.overlaps
```

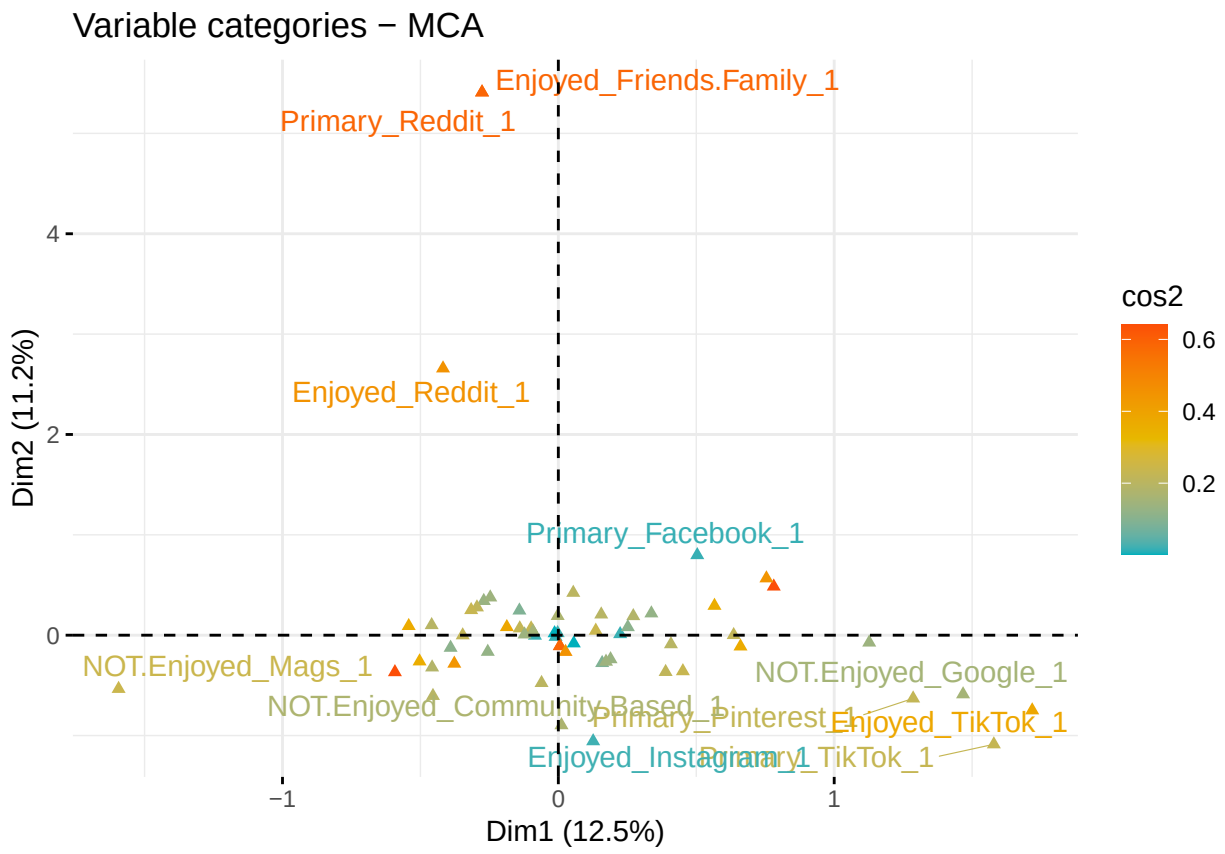



```
fviz_contrib(mca.unfactored, choice = "var", axes = 1, top = 15)
```




```
fviz_mca_var(mca.unfactored, col.var = "cos2",
             gradient.cols = c("#00AFBB", "#E7B800", "#FC4E07"),
             repel = TRUE, ggtheme = theme_minimal())
```

```
## Warning: ggrepel: 49 unlabeled data points (too many overlaps). Consider
## increasing max.overlaps
```


Variable categories − MCA
Enjoyed_Friends.Family_1
Primary_Reddit_1
Enjoyed_Reddit_1
Primary_Facebook_1
NOT.Enjoyed_Mags_1
NOT.Enjoyed_Google_1
NOT.Enjoyed_Community_Based_1
Primary_Pinterest_1
Enjoyed_TikTok_1
Enjoyed_Instagram_1
Primary_TikTok_1
Dim2 (11.2%)
Dim1 (12.5%)
4
2
0
−1
0
1
cos2
0.6
0.4
0.2