Data Exploration

```
library(igraph)
```

```
Attaching package: 'igraph'

The following objects are masked from 'package:stats':

    decompose, spectrum

The following object is masked from 'package:base':

    union
```

```
library(netplot)
```

```
Loading required package: grid

Attaching package: 'netplot'

The following object is masked from 'package:igraph':

    ego
```

```
library(data.table)
```

```r
students     <- fread("data-raw/pone.0153690.s001.csv")
interactions <- fread("data-raw/pone.0153690.s003.csv")
```

```r
students <- students[!is.na(id)]
interactions <- interactions[!is.na(id) & !is.na(contactId)]
```

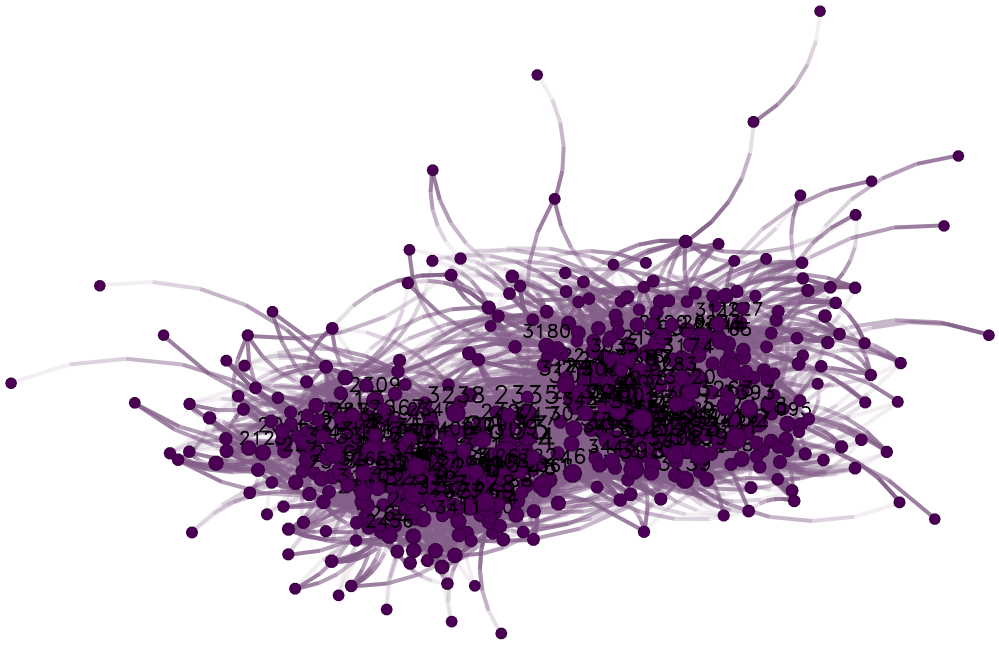
```r
# Checking which connections are not OK
ids <- sort(unique(students$id))

# From 10781, we now have 5150
interactions <- interactions[(id %in% ids) & (contactId %in% ids)]

# Creating weights matrix
net <- graph_from_data_frame(
  d = interactions[, .(id, contactId)],
  directed = FALSE, vertices = as.data.frame(students)
)

# Getting only connected individuals
net_with_no_isolates <- induced_subgraph(net, which(degree(net) > 0))

nplot(
  net_with_no_isolates
  ) # Many isolates
```



Looking into the degree

```
hist(degree(net), breaks = 50)
```