How many times have users turned off the notifications?

05/06/2019

Step 1: Data selection

The selected file analyzes 243 users for 329 days, from the beginning of the experimental phase (06.09.2017) until the end (11.01.2018).

Step 2: Pre-processing

Data has already been pre-processed and only data in the selected period and only notifications stating "The following UIDs have been unregistered" are shown.

Step 3: Transformation

For each day, the list of users is extracted.

```
##   Day Column UID
## 1  31  UID01  64
## 2  31  UID02  76
## 3  31  UID03  79
## 4  31  UID04 108
## 5  31  UID05 143
## 6  31  UID06 162
```

Some user in the list appear to be not active (UID= 64, 79, 108, 143, 162, 222, 237), and they shall be removed from the next table.

```
##   Day UID Type
## 1  31  76  CON
## 2  32   2  FIX
## 3  32  76  CON
## 4  36  76  CON
## 5  40  76  CON
## 6  44  99  CON
```

The resulting table allows obtaining the study conditions of each participant.

Step 4: Data mining

The resulting table presents the sum of how many times participants have turned the system off, divided by type of intervention.

```
## # A tibble: 4 x 2
## # Groups:   Type [4]
##   Type      n
##   <fct> <int>
## 1 CON     228
```

```
## 2 FIX      96
## 3 LOT      94
## 4 POW     506
```

An in-depth analysis allows observing some interesting trends concerning how many times each user has turned the system off.

The amount of times each participant has turned the system off varies greatly among particiapants.

```
## # A tibble: 10 x 3
## # Groups:   Type [2]
##    Type    UID     n
##    <fct> <dbl> <int>
##  1 CON       8     1
##  2 CON      56    17
##  3 CON      57    24
##  4 CON      76    10
##  5 CON      87    46
##  6 CON      99     2
##  7 CON     109    64
##  8 CON     112    24
##  9 CON     415    40
## 10 FIX       2     1
```

By gathering the information about the participant, it is possible to count how many participants are listed in each type.

```
## # A tibble: 4 x 2
## # Groups:   Type [4]
##   Type      n
##   <fct> <int>
## 1 CON       9
## 2 FIX       7
## 3 LOT       3
## 4 POW       5
```

Consequently, it is possible to obtain the average of how many times each user has turned the system off.

```
## # A tibble: 4 x 2
## # Groups:   Type [4]
##   Type      n
##   <fct> <dbl>
## 1 CON    25.3
## 2 FIX    13.7
## 3 LOT    31.3
## 4 POW   101.
```

In the end, it apperars that the average of CON (25.33) is smaller than the average of LOT (31.33).

Step 5: Evaluation

As requested, the current analysis allows stating that:

- In CON condition users turned off the notifications 228 amount of times.
- In FIX condition users turned off the notifications 96 amount of times.
- In LOT condition users turned off the notifications 94 amount of times.
- In POW condition users turned off the notifications 506 amount of times.