

Data - Flickr

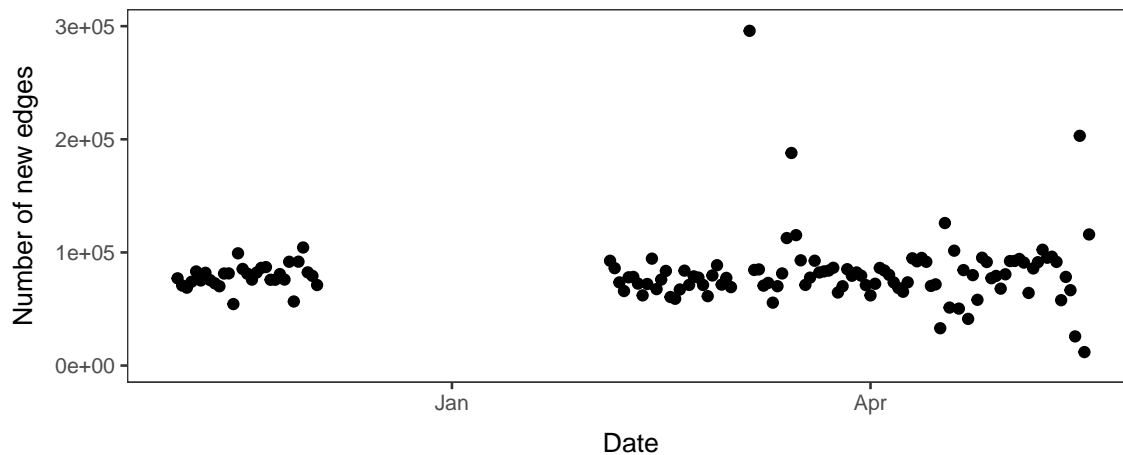
Jan Overgoor

- Source: <http://socialnetworks.mpi-sws.org/data-wosn2008.html>
- Paper: <https://people.mpi-sws.org/~amislove/publications/Growth-WOSN.pdf>

Read data

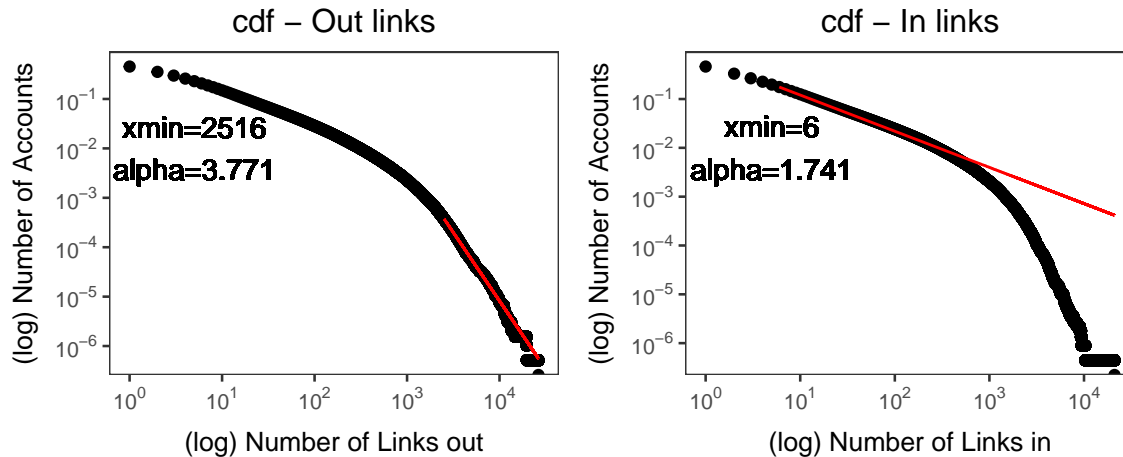
- total number of nodes: 2302925
- total number of edges: 33140018
- avg in-degree 14.3904026
- avg out-degree 14.3904026

Number of connections by day



In/out degree

```
## [1] "plfit: alpha=3.771 xmin=2516"  
## [1] "plfit: alpha=1.741 xmin=6"
```



Jackson R

- Fitted $r^* = 1.09$
- Fitted $r = \frac{r^*}{1+r^*} = 0.522$

Model

```
##
## =====
##               y
##             (1) (2) (3)
## -----
## log In-Degree  1.043*** 0.473*** 0.415***
##                (0.012) (0.017) (0.018)
##
## Reciprocal     7.878*** 7.578*** 7.564***
##                (0.399) (0.429) (0.437)
##
## Is FoF                4.366***
##                (0.091)
##
## 2 Hops                        3.350***
##                        (0.130)
##
## 3 Hops                        -0.479***
##                        (0.114)
##
## 4 Hops                        -2.967***
##                        (0.182)
##
## 5 Hops                        -4.101***
##                        (0.325)
##
## 6+ Hops                       -6.974***
##                        (1.134)
##
## -----
## Observations      5,000      5,000      5,000
## Log Likelihood -5,483.142 -3,501.051 -3,039.917
## =====
## Note:                *p<0.1; **p<0.05; ***p<0.01
## [1] "Train accuracy:"
## [1] 0.7021700 0.7987635 0.7902305
## [1] "Test accuracy:"
## [1] 0.7195609 0.8053892 0.8039604
```