Predicti rating and trust on Epinions and Ciao

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We present our method to predict rating and trust of users on two trust networks: Epinions and Ciao. We used the datasets provided by Jiliang Tang, Yahoo Research at his webpage.

Preparation

First of all, please make sure that you have installed R. The optional R Studio is recommended. Our method required the following packages, so we will install them if needed.

```
## Loading required package: h2o
## Loading required package: statmod
##
## ----------------------------------------------------------------------
##
## Your next step is to start H2O:
##     > h2o.init()
##
## For H2O package documentation, ask for help:
##     > ??h2o
##
## After starting H2O, you can use the Web UI at http://localhost:54321
## For more information visit http://docs.h2o.ai
##
## ----------------------------------------------------------------------
##
##
## Attaching package: 'h2o'
##
## The following objects are masked from 'package:stats':
##
##     sd, var
##
## The following objects are masked from 'package:base':
##
##     %*%, %in%, apply, as.factor, as.numeric, colnames, colnames<-,
##     ifelse, is.factor, is.numeric, log, trunc
##
## Loading required package: R.matlab
## R.matlab v3.3.0 (2015-09-22) successfully loaded. See ?R.matlab for help.
##
## Attaching package: 'R.matlab'
##
## The following objects are masked from 'package:base':
##
##     getOption, isOpen
```

```
##
## Loading required package: lubridate

## Warning: package 'lubridate' was built under R version 3.2.3

##
## Attaching package: 'lubridate'
##
## The following objects are masked from 'package:h2o':
##
##     day, hour, month, week, year
```

Note: If you have problem with installing h2o on Ubuntu, you may refer to this discussion.

Experiment

Predict rating

We will load our code and execute the prediction

```
## Loading required package: zoo
##
## Attaching package: 'zoo'
##
## The following objects are masked from 'package:base':
##
##     as.Date, as.Date.numeric
```