NETWORK ANALYSIS: PEOPLE AND OPEN SOURCE COMMUNITIES

Dawn M. Foster

PhD Student
University of Greenwich
London, UK

@geekygirldawn
dawn@dawnfoster.com
fastwonderblog.com
WHOAMI

• Geek, traveler, reader

• 20 year tech career. Past 15 years doing community & open source (Intel, Jive, Puppet Labs, etc.)

• PhD student at University of Greenwich researching Linux kernel

Photos by Josh Bancroft, Don Park
WHAT IS NETWORK ANALYSIS?

Studies relationships between units and looks for patterns and structure in those relationships.

Image from ANAMIA Project
AGENDA AND INFO

• Gathering your data
• Data manipulation for network analysis
• Visualization
• What else can you do?

Scripts, Data, and More: github.com/geekygirlidawn/oscon_2015

Image from a Northern Marina Islands Network
I 💖 METRICS GRIMOIRE

MailingListStats aka MLStats

CVSAnalY - repos

Bicho - bugs

More

http://metricsgrimoire.github.io
MLSTATS

a) Install mlstats

$ python setup.py install

b) Create database

mysql> create database mlstats;

c) Import data by running mlstats

$ mlstats --db-user=USERNAME --db-password=PASS http://URLOFYOURLIST
SELECT mp.email_address AS sender, (SELECT mp2.email_address FROM messages m2, messages_people mp2 WHERE m2.is_response_of=m.is_response_of AND mp2.message_id=m2.is_response_of limit 1) AS receiver FROM messages_people mp, messages m WHERE YEAR(m.first_date)=2015 AND MONTH(m.first_date)=1 AND mp.message_id=m.message_id;

Output:
sender@example.com in_reply_to@example.com
sender1@example.com in_reply_to1@example.com
sender2@example.com in_reply_to2@example.com
...
EXTRACT DATA: SCRIPTS

Reformat / clean up data
Reproducible
Reduce human error

oscon.py script

github.com/geekygirldawn/oscon_2015

Dunno what happned

We didn't touch it

Image from Mark Grealish
Convert data for better use with network analysis

Visualize data using RStudio, Visone, and Gource
WHAT ELSE?

So many visualization tools
Python network packages
Network analysis is more than just pretty pictures!
THANK YOU

Dawn Foster
University of Greenwich
Centre for Business Network Analysis
www2.gre.ac.uk/about/faculty/business/research/centres/cbna/home

@geekygirl_dawn, dawn@dawnfoster.com
fastwonderblog.com