

MY LEARNING JOURNAL:

Using Issue Crawler for Mapping Online Local Government Networks in Indonesia

Sujarwoto
University of Manchester

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One part of my PhD thesis have purpose to identify, to represent, and to visualize local government networks within the context of decentralization and electronic government development in Indonesia. I realizes this is an interesting research topic because it correspond at least to four recent issues on Public Administration: decentralization, policy networks, governance or network management, and information technology development in public organization. Latter, I will explain this on my third essay plan.

In this essay, social network analysis will be used to seek answer related to the pattern of local government networks, how and the dynamic of it, and to what extent it change in the contexts decentralization and electronic government policy in Indonesia. In order to avoid problem related to generalization, this research use all local governments which have web site address as research sample. I found 402 local governments that already launched their web site address from total 433 local governments in Indonesia.

Of course it is impossible if I do this by manual, and therefore robot web, Issue Crawler and Pajek, is needed to mapping the networks structure of those local governments. Both software are available freely for academic use from its authors' site.

As generally beginner, at first time I looks those tools is complicated, but after learning and understanding it, I felt that those are really exciting and powerful for analyzing various social networks via online. I realized that this new knowledge which is important for me as a stepping stone for doing my PhD thesis.

Issue crawler is one kinds of network mapping software by the Govcom.org Foundation, Amsterdam. This software is founded by Richard Roger as online documentation so that we can register it by auto-request an account at issuecrawler.net. In my research, this software is used for harvesting local government networks. The first step using this software is that preparing raw data commonly called *feeds*. In this research, the feeds are all local

government web site which I found by searching it through google.com. One thing I learn from this step is that I have to be careful when preparing the raw data because if I forgot put dot (.) or other extensions like /php or else, it will affect when producing compatible data for making visualization in Pajek software. Pajek will not tolerate if the data contains those errors. For instance: <http://www.slemankab.go.id/php> it is better to use the simplest text file by writing: <http://www.slemankab.go.id/> remember without dot (.) or php. There are no way to do this mundane activity unless be cautious, and re-check again and again until the raw data is clean.

Soon after preparing the feeds finished, I am going to Issue Crawler website to harvest it. It is quite simple to do this since I just need to copy the feeds and paste it into Issue Crawler box. Then, wrote and selected the crawl title, the number of iterations and the crawl depth. In this research I set the crawl depth until two neighbors means my networking map only describes local government networks until second neighbors. Then, I launched my first crawl by clicking launch crawl button. Issue Crawler will harvest the feeds automatically and soon after harvesting is completed, notification email will be sent. In this research is only take three days from 19 January 2009 to 21 January 2009. The result then can be checked on the network manager which provides some information such as crawl identity (name, author name, author email, date, number of iterations,crawl depth, etc.). Cluster map also can be drawn by clicking cluster option and then through mozilla fire fox we can see it since VML (Vector Markup Language) is needed to open the map. VML is an XML language used to produce vector graphics. Networks detailed data which contains :UCInet / NetMiner compatible data file also provided in this window. Latter, this data is needed as input network data set which is used to produce detailed networking map on PajekTherefore, the next step is working on Pajek Software.

Pajek is a program for making analysis and visualization of large network. We can learn how to use it from various web site link or for student at University of Manchester there is available information how to use Pajek on<http://www.ccsr.ac.uk/methods/publications/snacourse/snacourseweb.html>. The first activity working with Pajek is that preparing network data file which consist of a vertices set and an edges set. A Pajek network file is a simple text file which can be wrote in Notepad, TextPad or WinEdt. For preparing this, simply I downloaded input data from Issue Crawler which provided on UCInet/NetMiner, and then change it into compatible data file as DL format by UCInet software. UCInet is a comprehensive package for the analysis of social network data which can read and write a multitude of differently formatted text files. I can read it by clicking data option, import text file, and DL. Then, the input network data set is provided.

As generally researcher done, one thing that very important here is that it is a good practice to precede network data file with comments, each line market /* at the beginning and */ at the end to remind myself of the de-

