Lecture 3

Complex Network Analysis

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1300 K

in Python? Analysis

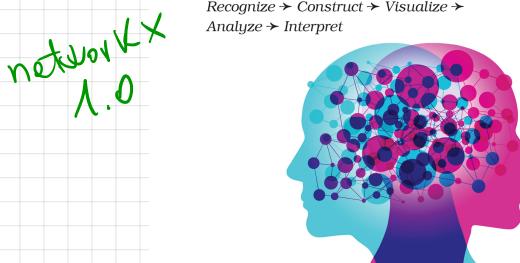
Dmitry Zino view the Praymetic Programmer 2017

https://pragprog.com/book/dzcnapy/complex-network-analysis-in-python

Get Source J Code Nece

Complex Network Analysis in Python

Recognize \rightarrow Construct \rightarrow Visualize \rightarrow Analyze \rightarrow Interpret



Dmitry Zinoviev edited by Adaobi Obi Tulton Today: 3,465

Tools *** Python 3.0 (or greater) *** Network** 2.0 (or greater) *** Instructor's distribution: Ana condo on Macos *** Topyter 5.0.0 *** Gephi (Jewa)

R) + i greph (evidileble also for python)

Peters many others Other libraries (Python)

i Greph
greph Tool

networkit (= for
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grephs)

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Y N voce toly easy to instell easy to understand and use Sully in plemente d in Python (& it inefficient) vi. the lorge detects) + communty Delection no + advenced leyouts you have to install other peckapes 0 8 Gephi

Tutroduction to Python

downloed end execute Step by step these notebooks (on moodle):

01 Python_introduction.ipyns
02 - Glos_Pickle_ipyns
03 - Pondes_intro.ipyns
(dote from: Date Sets.txt)

Author: Dr. Flouis Lisders

this is on your

Introducing Networkx (Chapter 3) 1. Learn how 6 mensely create a network 01_ Network Creetion ipynb 2. Learn how to read a network from a CSV sile 3. Learn how to visualize network with 4. Learn how to some your graph to a formati readable from Gephi 02 - Nutrientr. ipyn5

Introducinz Gephi (chapter 4)

- 1. import existing network
 date
- 2. modify the network
- 3. change size and color of nodes, text, and edges

Constructing a net work of Wiki peola Pages (chapter 5) stort from a SEED page run e simple snowballing process Create a directed Graph 3. Perform some cleening 4. Perform besic analysis 5 Sove date for Gephi to create better visualization 6. 03- Wi Ki pedia. ipyn5