

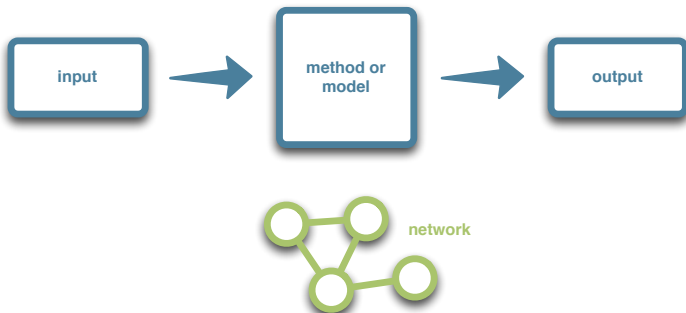
network *perspectives*

introduction to *network analysis* (*ina*)

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spring 2021/22

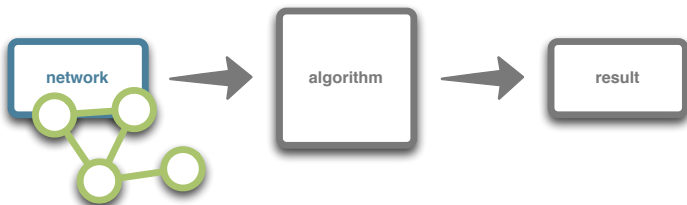
network analysis

where is *network in analysis*?



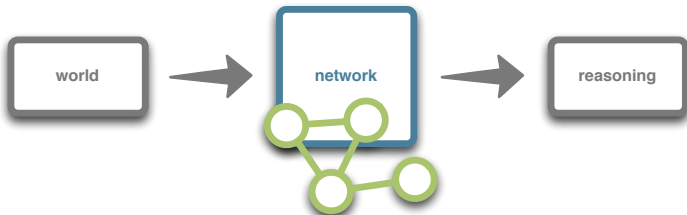
network *as input*

computer science
network is *input to analysis*



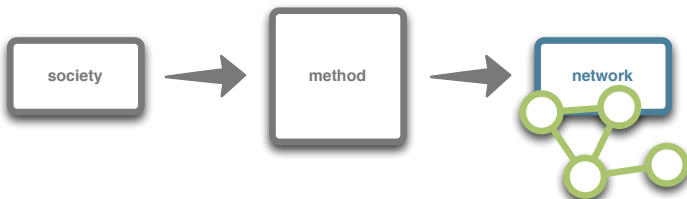
network *as model*

physics
network is *model of analysis*



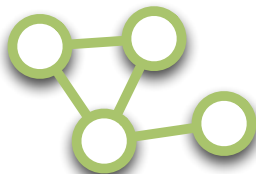
network *as output*

social sciences
network is *output of analysis*



network *as graph*

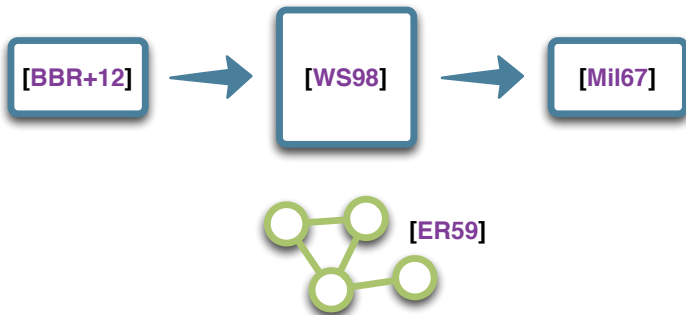
graph theory
network is graph



network *science*

network science

collaboration among disciplines





A.-L. Barabási.

Network Science.

Cambridge University Press, Cambridge, 2016.



Wouter de Nooy, Andrej Mrvar, and Vladimir Batagelj.

Exploratory Social Network Analysis with Pajek: Expanded and Revised Second Edition.

Cambridge University Press, Cambridge, 2011.



David Easley and Jon Kleinberg.

Networks, Crowds, and Markets: Reasoning About a Highly Connected World.

Cambridge University Press, Cambridge, 2010.



Ernesto Estrada and Philip A. Knight.

A First Course in Network Theory.

Oxford University Press, 2015.



Mark E. J. Newman.

Networks.

Oxford University Press, Oxford, 2nd edition, 2018.