



INTRODUCTION TO SOCIAL NETWORK ANALYSIS

LECTURE #1



LEARNING OBJECTIVES

- Be able to ^{تعريف} define “social network”
- Understand the meaning of social network analysis (SNA)
- Be able to visualise a simple social network

WHAT WILL BE COVERED?

- Part 1 – What is a social network?
- Part 2 – What is social network analysis?
- Part 3 – Getting a sense of a real-life social network
- Part 4 – Introduction to Gephi

IT - ကုမ္ပဏီများနှင့် ဝန်ဆောင်မှုပေးသူများ

source - မူရင်း
destination - ခရီးရောက်ရာ

Get thing done

Network of thing

- Electricity
- Phone

Travel - network of roads.

အခွင့်အလမ်း

PART 1 – WHAT IS A SOCIAL NETWORK?

=> Get things done.
-> Source to destination.

social Network -> Network of people
အလုပ်အကိုင်အဖွဲ့အစည်း

အချိန်အကုန်

WHAT IS A SOCIAL NETWORK?

- A social network is a **platform** where individuals meet (online) to **communicate** or share information by making posts, sending messages or leaving comments.

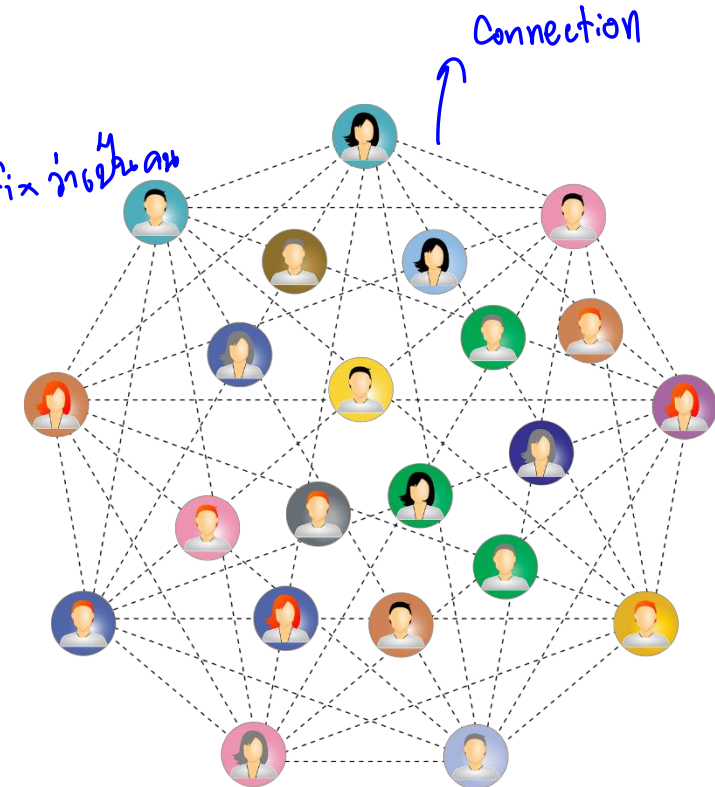
แพลตฟอร์ม ที่ทำให้ผู้คนสื่อสารกันได้ (ออนไลน์) สื่อสารในหลายรูปแบบ



WHAT IS A SOCIAL NETWORK?

- A social network is a social structure made up of a set of **social actors** (people or organisations) that are **connected** by one of more specific ties such as friendship, family, common interest, financial exchange, dislike etc.

ฟะหะยักได๋ ไฉ่ fix ักหะน



TYPES OF SOCIAL NETWORKS

■ Classified by platform:

- Web-based social network
เว็บไซต์
- Mobile social network
มือถือ
- Hybrid social network
เว็บ + มือ

■ Classified by audience:

- General social network
ทั่วไป, ไร้อุปสรรค
- Niche social network
มีกลุ่มที่เฉพาะเจาะจง
ex. เว็บไซต์ 2013, เว็บไซต์ของครู
Goodreads. → คนอ่านหนังสือ

TYPES OF SOCIAL NETWORKS

จุดประสงค์

■ Classified by purpose:

■ Dating social network



■ Informational social network



จุดประสงค์

■ Classified by purpose:

■ Education social network



sintelly

■ Commerce social network

หรือ ชื้อขาย

■ Multimedia sharing social network



■ Social connection network





PART 2 – WHAT IS SOCIAL NETWORK ANALYSIS?

SOCIAL NETWORK ANALYSIS

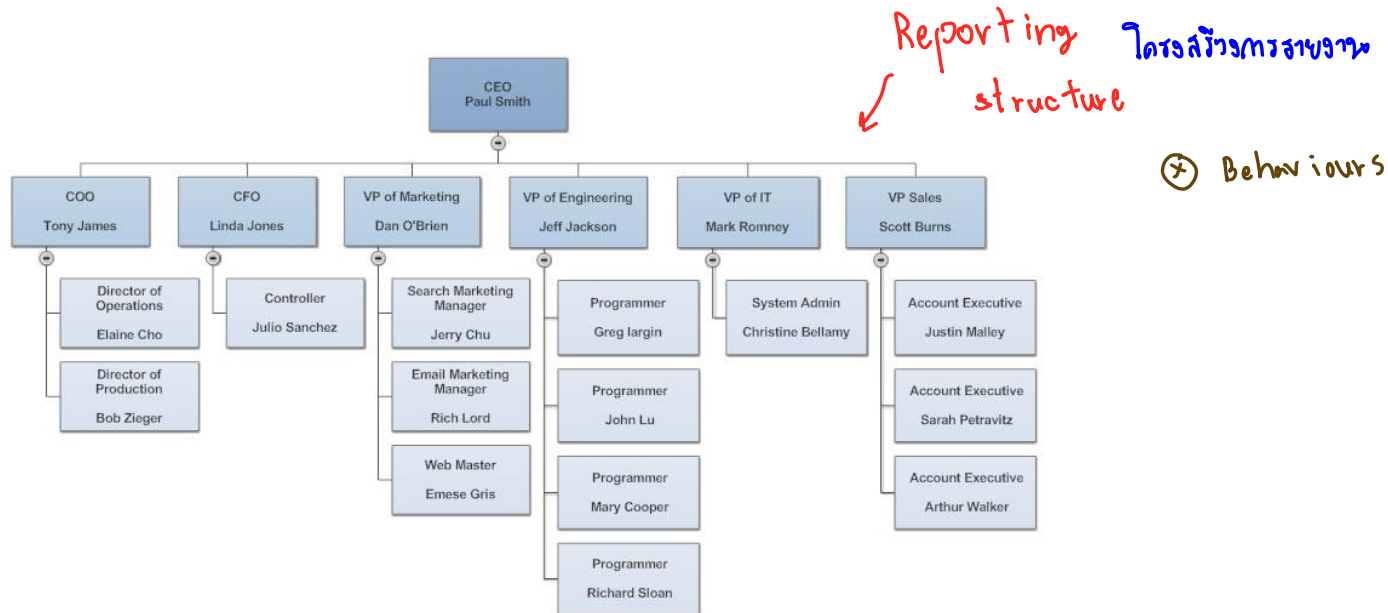
SNA

- Applications and interests have increased over the past 20 years.
- Reasons:
 - Business 2.0 Magazine – SNA on a terrorist network (2001)
 - Important tool for online businesses
 - Sells data
 - Who works with whom, who consults whom and who has the most influence

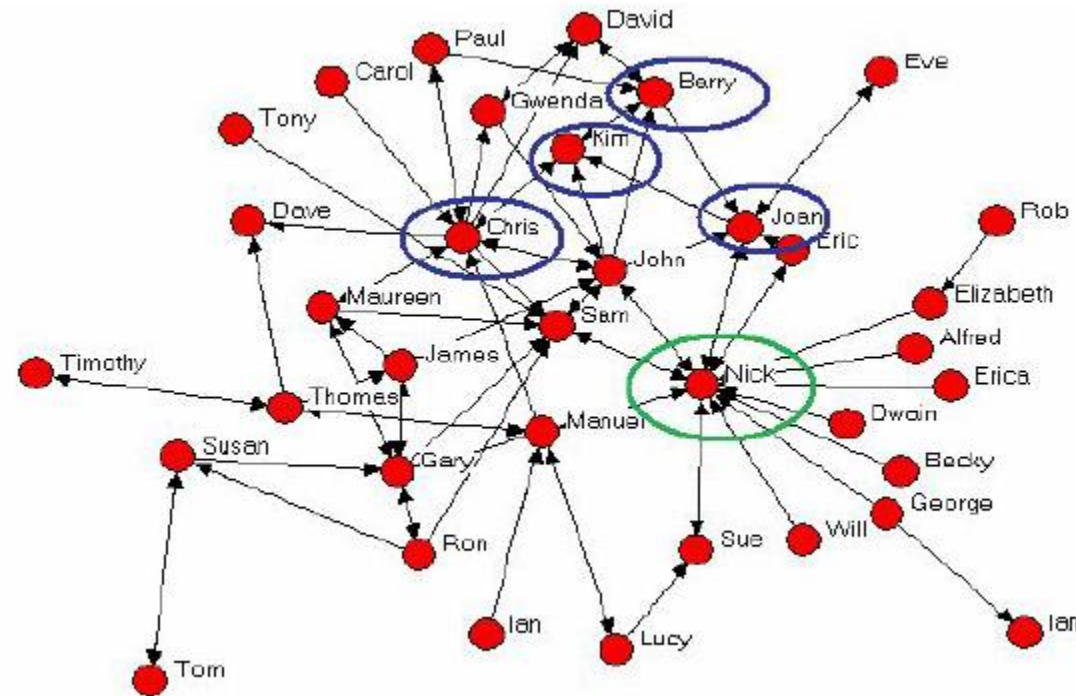
SOCIAL NETWORK ANALYSIS MOTIVATION

- A network within an organisation

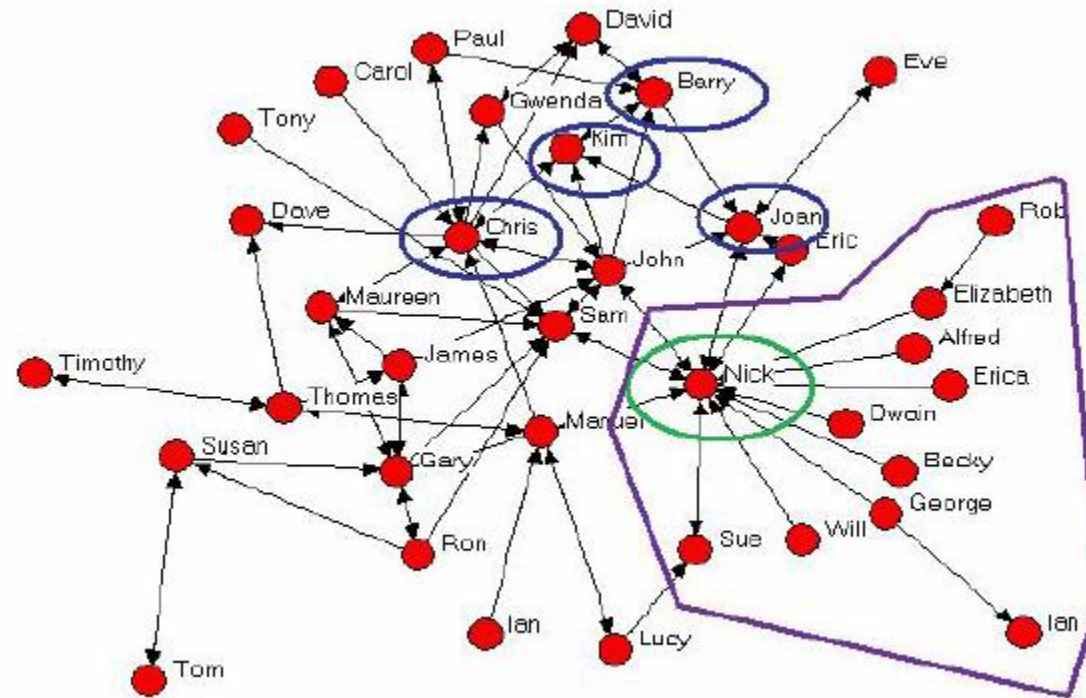
- What can we observe?



SOCIAL NETWORK ANALYSIS MOTIVATION



SOCIAL NETWORK ANALYSIS MOTIVATION



WHAT IS SOCIAL NETWORK ANALYSIS?

ตรวจสอบคุณลักษณะ

และ โครงสร้างของเครือข่าย

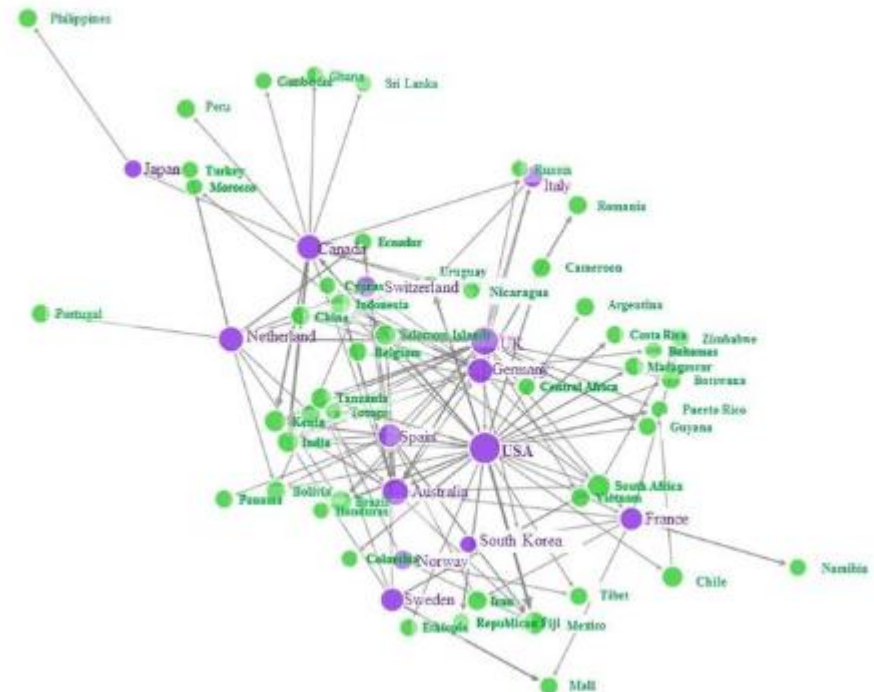
- A process of **investigating properties** and **social structures** through the use of **networks** and **graph theory**. ทฤษฎี กราฟ

- Analysis of characteristics คุณลักษณะ

- Analysis of relationships ความสัมพันธ์

- Analysis of behaviours พฤติกรรม

- ศึกษาค้นคว้า



WHY DO WE USE SOCIAL NETWORK ANALYSIS?

- Enables us to segment data based on user behaviours
- Understand how a group is formed:
 - Interests, workplace, characteristics, ...
- Understand and identify who the important people are

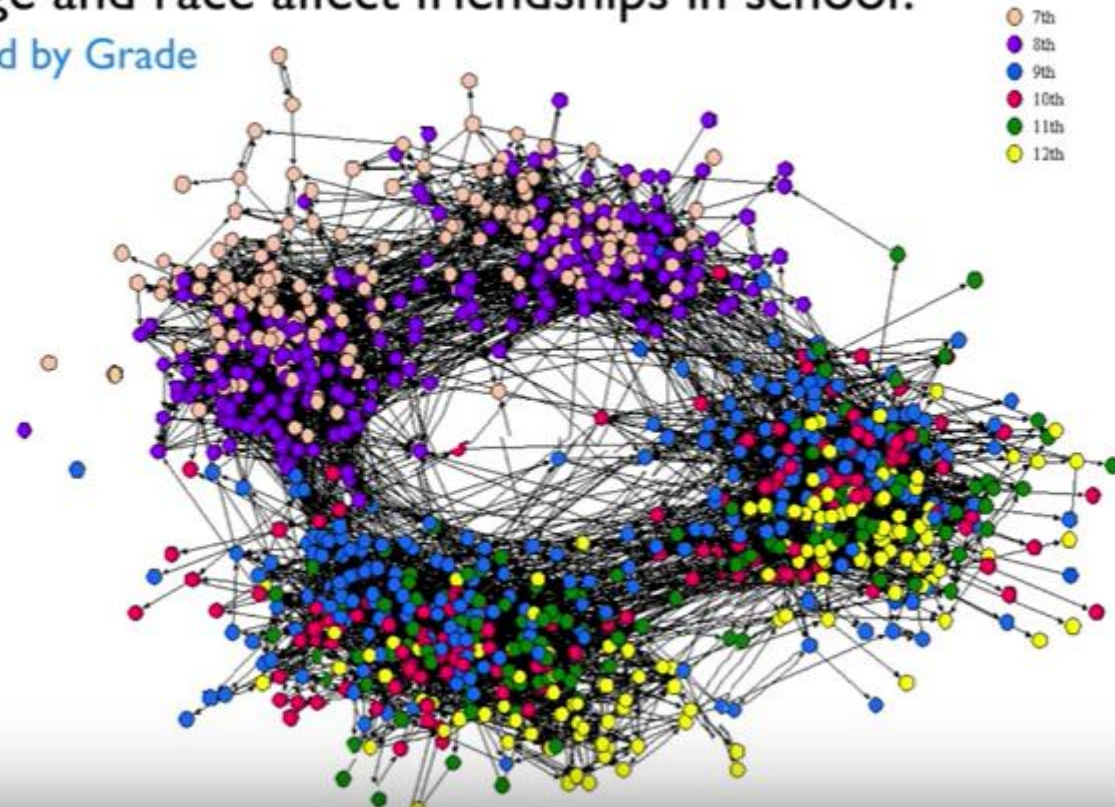
X (Twitter) or Facebook Group

သူတို့ပါဝင်မှုအလွယ်တကူ

SOCIAL NETWORK IN SCHOOL

How do age and race affect friendships in school?

Points Colored by Grade

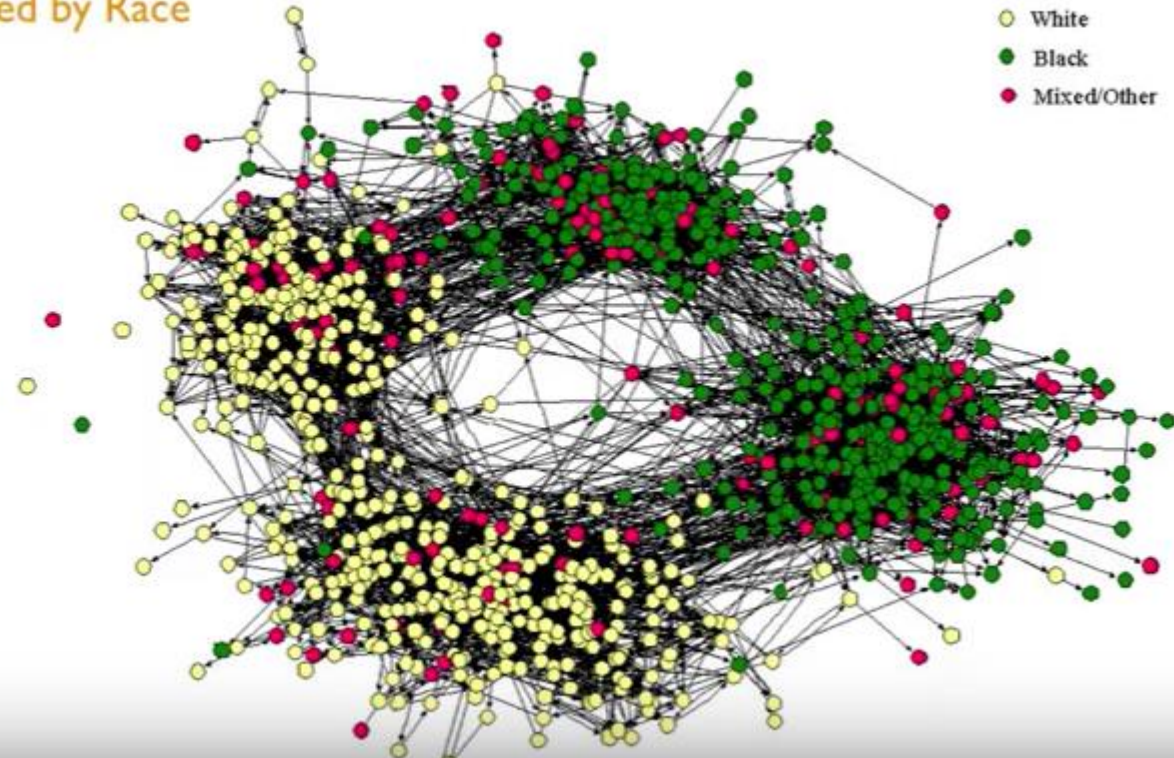


Source: Mod-U

SOCIAL NETWORK IN SCHOOL

How do age and race affect friendships in school?

Points Colored by Race



Source: Mod-U

ANALYSING SOCIAL NETWORKS

เก็บข้อมูล

■ Data collection

■ Surveys

■ Interviews

■ Observations

□ web scraping

วิเคราะห์

■ Analysis

■ Graph theory

■ Graph metrics

SOCIAL NETWORK ANALYSIS IS NOT

- SNA is not social networking
- It is not X (Twitter) or Facebook
 - How are they different?
 - How are they similar?



SUMMARY

- SNA is the analysis of relationships
- SNA can help visualise social structure