# Graph mining

## What is it?

Network analysis, or "graph mining", involves extracting information from a network. An example of a network is your relationships on Facebook or LinkedIn, but it also covers communication networks, or financial transactions, and so on. Relevant information is, for example: "who is central in the network? What are the subgroups in the network? How does the network evolve over time?"

## What business impact?

- Fraud detection: network analysis is useful for detecting groups of people who conduct transactions in common, and identify patterns of suspicious activities.
- Identification of "influencers": in a social network, the most connected people can be the most influential.
- Market study / business intelligence: network analysis makes it possible to qualify a crowd in sub-segments.

## Influencers to follow

Lada Adamic, Mathieu Jacomy, Sébastien Heymann, Marc Smith (NodeXL), Vincent Traag, Jure Leskovec.

## Companies to assist you

Linkurious, Linkfluence, Cambridge Intelligence, Tom Sawyer Software.

## 3 organizations leveraging graph mining

**CybelAngel** uses network analysis, among other data science techniques, to conduct its cybersecurity activities.

**Bluenod** analyzes Twitter networks to identify influencers on specific topics.

**Walmart**, Amazon and many others use network analytics to detect which products are frequently co-purchased to create new recommendations.

To go further : https://emlyon.github.io/mk99