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.