

PQS Social Net Analytics

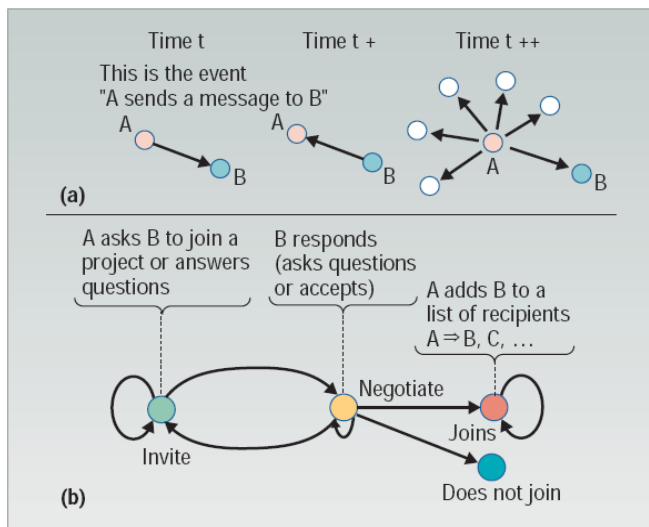
Project description

INTRODUCTION

The analysis of social networks puts the focus on discovering what roles people, or groups of people, play in a social structure by analyzing their actions over time. This means that it is possible, for instance, to discover what parts of a business are running efficiently, and what parts are running inefficiently, or to discover independently operating terrorist cells. Because a PQS uses models that describe changes over time, it is ideally suited to discover, and predict, the dynamics of a constantly changing social environment.

THE APPLICATIONS

Currently three sets of PQS models exist for analysis of communications in social networks, and all focus on collecting and analyzing communications between people (actors). These communications can be anything, such as e-mail, phone calls, postal mail, face-to-face meetings, instant messaging, and financial transactions.



The first application detects price fixing and cartel forming by analyzing the actions and communications of key personnel in organizations operating in the same market. Collusion is serious, as the United States Sentencing Commission estimates that the average overcharge resulting from anti-trust offenses is at least 10%. Our second application detects independently operating terror cells by analyzing the changing structure of known

connections between actors. Since it is not always possible to analyze the large majority of communications in these cases, extra information is used that can be gathered in other forms, such as interviews, knowledge of family relationships, previous jobs and schools, or towns that an actor has lived in.

A recent development is the use of PQS for discovery of business processes. By analyzing the flows of information in a business it is possible to identify efficient, inefficient, or even unknown, but important, business processes. In some cases it will also detect leakage of sensitive information. In addition to the aforementioned sources, this application relies on specific network knowledge, such as file accesses on a server, which documents were printed, and what time and date systems are used by which user. This application can give executives a deep insight into the inner workings of their organization.

PROCESS QUERY SYSTEMS

A PQS is a generic correlation engine that puts the focus on the dynamics of an environment, instead of using traditional static methods. By describing how things change over time, a PQS is able to achieve previously unseen levels of detection and correlation in environments too complex for conventional techniques.

FUNCTIONAL SPECS

This PQS application was implemented using the following system requirements:

- PQS platform (either TRAFEN or C-TRACK)
- Pentium 4 or better
- 512 MB RAM
- Java 1.4 or better
- MS Windows XP/2000, Linux 2.6, Solaris > 8

WOULD YOU LIKE TO KNOW MORE?

If you would like to learn more about this PQS application, or if you would like to use this functionality in your environment, please contact:

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