

## Aqua Social Networks

Social Network Analysis (SNA) allows deepening customer knowledge by analyzing how information and opinions spread among individuals within a community. SNA also provides knowledge on the influence social environments have on their perceptions and their future behaviors as consumers.

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### Main benefits

Learning how opinions and behaviors propagate among customers.

Early detection of high risk customer churn situations.

Increasing the ability to detect customer propensities to subscribe new products and services.

Identifying customer communities allowing their characterization and identification of common habits and behaviors.

Determining each customer's role within their communities and knowing their needs and motivations.

Simulating event propagation dynamics to optimize, for instance, launching strategies for products and services.

Discovering how social networks influence customer profitability and loyalty, as well as how to condition social network dynamics for value generation.

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### The solution

Traditional marketing has lost effectiveness on consumers. This statement is supported by the fact that 76 percent of consumers claim not to believe in ads from companies on their products. On the other hand, according to the Word of Mouth Marketing Association 92 percent of consumers consider opinions from acquaintances to be the best source of information on products.

These facts make us relieve that our customers can be our best marketing agents and therefore studying their isolated behaviors is no longer enough. **Social Network Analysis (SNA)** represents a breakthrough in the fields of marketing and commercial management, since it allows drilling down on customer knowledge by using previously overlooked information on other related individuals.

The solution, based upon application of efficient algorithms to large volumes of information, covers all necessary stages for social network analysis:

**Identification of communities and their interrelations.** Neo Metrics' solution allows identifying communities, as well as relationships among them, with unprecedented accuracy. Communities are then clustered by community type for further analysis of their internal dynamics. In addition, SNA allows distinguishing among community types depending on the types of relationships sustained by the customers therein: Professional, family, friendship, hybrid, etc.

**Determination of each customer's role.** Not all individuals from a community play the same role. It is necessary to identify the role each customer takes on in order to determine individual impacts on the network. Neo Metrics' solution yields this type of knowledge.

**Network dynamics predictive modeling.** Once communities and roles have been established, Neo Metrics SNA solution applies data mining predictive modeling to perform various estimates on each customer in order to simulate the propagation effects of different actions, thereby discovering global effects within the customer network.

### Neo Metrics' unique methodology

Neo Metrics' Social Network Analysis solution is the result of the company's commitment to analytic excellence and its vast experience in the development of customer management systems for institutions in the areas of banking, insurance, telecommunications, utilities and retail. Neo Metrics became in 2007 the first European company to ever win the **KDD CUP**, which is the most prestigious analytics competition in the world.

## Success Stories

# Cellular Telephony Leader

Our Social Network Analysis solution tripled client's ability to predict churn.

### The Challenge

The Spanish mobile telephony market is highly competitive. Carrier growth is essentially based on customer acquisition from competitors.

Our client needed an analytic solution capable of using customer information to produce both accurate and early identification of customers at high risk of churn, in order to manage them accordingly.

In addition, it was required to identify highly influential customers (alpha-users) on the rest of members of their communities.

### The Results

Neo Metrics developed an application that allowed our client to run standalone processes in order to build its customer social network, as well as periodically update all churn models. Including customer social network information resulted in tripling predictive power of previously used, traditional models.

By means of a user-friendly, easy-access environment, the application allows users to:

- periodically launch analytic processes,
- view and characterize customer communities and
- generate reports on network dynamics.

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Neo Metrics' solution allows:

Identifying and characterizing all mobile telephony user communities.

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Knowing all customer roles played within each community.

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Early prediction of churn events and higher success rates of customer retention actions.

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# Leading Insurance Company

Our Social Network Analysis solution doubled client's ability to predict churn.

### The Challenge

The insurance sector is characterized by sparse customer interaction. Churn is therefore difficult to predict and cancellation forecasting has been traditionally based on the presence of highly obvious hints, such as customer statements of dissatisfaction resulting from negative claim resolutions or any other types of complaints.

In this uphill context, the challenge was to develop a system allowing for significant improvement in predictive power of customer churn. The use of historical customer data became necessary for this purpose.

### The Results

The innovative solution contributed by Neo Metrics was based on a particular fact from the business domain: A policy may reveal relationships among several individuals. Thus, the subscriber need not coincide with the insurance user, who can in turn undertake another policy contracts with other beneficiaries.

This simple scheme allowed defining relations among several customers (sharing a contract or a home address, or prescribing for other individuals, etc.), enabling identification of communities also known as influence spheres of each customer.

The end result was to double the predictive power of traditional solutions.

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Neo Metrics' solution allows:

Increasing the success ratios of customer retention and loyalty actions.

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An integrated vision of all customers and their communities, creating the possibility of greater offer customization.

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