



Viral marketing through the use of Ildiro's analytics

Introduction

This document outlines the experience of a major European mobile phone operator in evaluating how Ildiro's specialised analytics service based on Social Network Analysis (SNA) can be used to drive viral diffusion of a new proposition within its customer base.

Ildiro Analytics is a pioneer in the analysis of mobile CDRs (Call Detail Records) using Social Network Analysis (SNA) algorithms. Ildiro's services are used by mobile phone operators to understand the communities within the market and to identify the influencers within this market, in order to make their marketing activity more effective.

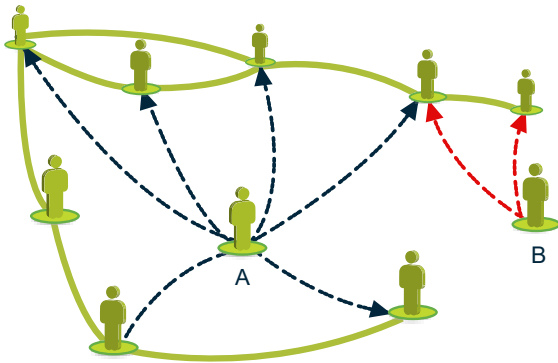
There are many ways in which a mobile operator can benefit from Ildiro's SNA capability. The purpose of this research exercise was to measure how much extra benefit would be brought by a viral marketing campaign based on Ildiro's scores and methodology.

The use of social network analysis in mobile operator marketing

The use of Social Network Analysis (SNA) for marketing purposes is a complex subject. Even though individuals may have similar communication patterns (as shown in the figure below), this does not necessarily translate into similar levels of influence. Influence is a function of a complex set of parameters including communication frequency, intensity, levels of reciprocity and connectedness.

Fig. 1 below illustrates how one person, subscriber A (on left) can influence 6 people to adopt a new product/service while subscriber B (on right) who, at first glance, seems to have similar calling

behaviour has significantly less influence in her community.



Objective of research

For this evaluation, a campaign target list was chosen by the mobile operator, independently of Ildiro. Ildiro then predicted which targeted customers would be most likely to influence their friends to take up the new tariff add-on. Uptake within communities was analysed. A strong correlation between a target's Ildiro score and their friends' propensity to take up the offer would indicate a successful SNA-based prediction.

Thus, if Ildiro's SNA capability were used in selecting target customers for future campaigns, this would lead to significant increases in campaign uptake.

The mobile operator had been promoting a new tariff add-on which was specifically targeted at ethnic minorities within their customer base.

These customers had already signed up for the carrier's "landline replacement" tariff. The tariff add-on enabled customers to make highly discounted calls to landline numbers in a large number of countries for an additional flat monthly fee.

The tariff add-on had been promoted over a period of six months through telemarketing campaigns.

Campaign mechanics

The evaluation of the benefit of using SNA in this campaign is rather complex, and merits a detailed explanation. Ildiro used its SNA algorithms to analyse the social networks of those customers who were not targeted by previous campaigns for this tariff add-on, but who independently took it up in the operator's retail outlets. The SNA insights gained during this stage contributed to the subsequent development of the Ildiro scores.

Ildiro SNA was then used to perform a SNA analysis of the customers within the target list for the campaign in question.

These subscribers were drawn from a subset of the whole customer base as there was a basic prerequisite that they be already subscribed to the carrier's landline replacement tariff and that they regularly made international calls.

An additional group of subscribers, to be used as a control group, were selected and quarantined from relevant communications by the mobile carrier.

Ildiro scored every subscriber in the target list and assigned a score to them which reflected their level of influence for this specific campaign, i.e. their likelihood to cause members of their social group to take up the new tariff add-on.

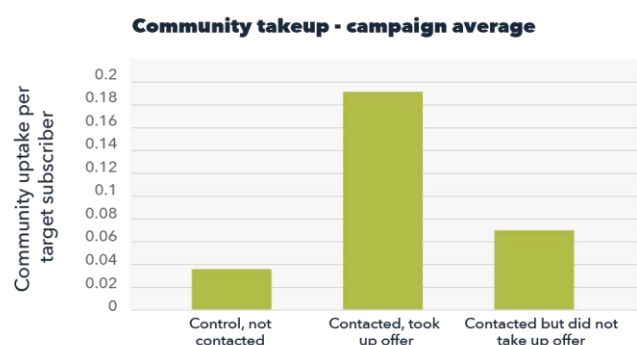
This customised influence score was calculated using Ildiro's proprietary algorithms, using call traffic data and viral history of previous instances of this campaign.

In addition to the product uptake within the target group, some uptake occurred outside the target group. In order to analyse the effect of the campaign on uptake outside the target group, the target list was broken down into three groups:

What is our process?

- 1 Those who were in the control group and therefore not contacted at all,
- 2 Those who were contacted and took up the offer,
- 3 Those that who were contacted but did not take up the offer themselves.

Uptake of the product within the social networks (communities) of each member of each of these groups was analysed in order to identify how much viral transmission of the offer had occurred within each group.



- There is a low level of product uptake within the control group. This can be referred to as the 'background' level of uptake within this segment.

- People in the communities of those who were targeted and took up the offer were five times more likely to take up the product than those in the control group. This shows that for this product / campaign, a significant level of viral transmission did occur.

- The increased level of viral transmission within the third group is particularly interesting. These are customers who are not interested in using the tariff add-

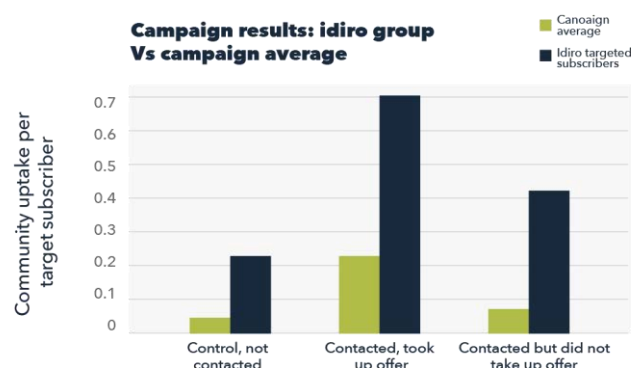
on themselves, but recommended it to their friends for whom it is more suitable. We know this because we can see that there is more

uptake in the communities of these people than in those of the control group.

Some campaigns / propositions generate much more word-of-mouth activity than others. These results show that this campaign and the associated proposition are generating significant word-of-mouth. One would therefore expect that by using SNA to identify and target the most influential people within the target segments, community uptake for this campaign would be increased significantly.

How much extra value comes from idiro targeting?

Before the campaign results became available, Idiro calculated a customised influence score related to this campaign for each member of the target group. Fig. 3 below compares the community uptake in each of the previously defined groups, for the top 10% of Idiro-defined influencers, versus the campaign target group as a whole.

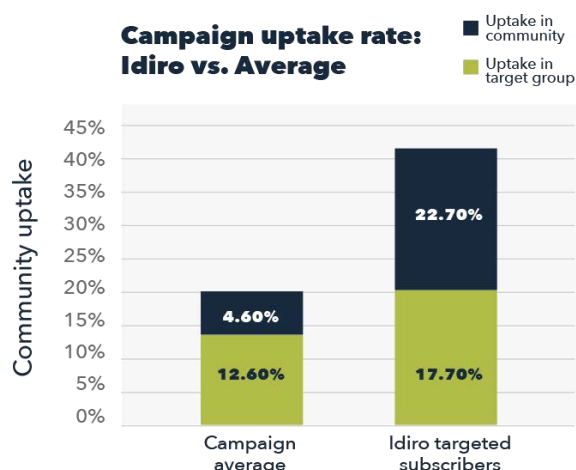


It is clearly shown that there is a strong correlation between the Idiro viral influence score given to a person targeted, and the likelihood that someone in that person's community will take up the offer - whether the target customer availed of the offer or not.

Conclusion

This evaluation clearly shows that Ildiro successfully predicted which customers were most likely to influence their friends to take up this product. Fig. 4 below shows the campaign results within both the target group (direct uptake) and the target's community (viral uptake) as a percentage of the number targeted in the campaign.

If highly influential individuals like those with the top 10% of Ildiro scores were used for selecting targets for this offer, then campaign response rates would increase from their current average uptake of 17.2% (12.6% within the target group and 4.6% viral transmission within the communities of those targeted) to a maximum of 40.4% (17.7% + 22.7%). This represents a 230% increase in overall success.



To calculate the increase in revenue that can be achieved by using Ildiro SNA, we make the following assumptions. 1) A group of 10 000 subscribers are contacted each month.

2) The mobile phone operator is constrained by contact frequency rules and / or budget to a maximum size for this campaign of 10 000 subscribers each month.

3) There is a sufficient number of good potential targets for the campaign or for other campaigns for which a similar uplift in targeting accuracy can be achieved.

The increase in targeting accuracy from 17.2% to 40.4% then translates to an extra 2300 customers taking this new proposition each month. At an estimated annual ARPU increase of €50, then Ildiro SNA can be seen to be delivering approximately €1.4M extra revenue from twelve months of campaigns. However, some caveats must be introduced. Firstly, as previously stated, not all marketing campaigns are suitable for viral marketing. Secondly, in order for viral marketing campaigns to be successful, Ildiro's experience has shown that the campaign itself be designed with viral transmission in mind. Finally, the market for this particular tariff add-on is limited to the part of the customer base that makes international calls home, and so caution must be exercised when extrapolating these results.

Social Network Analysis techniques are an invaluable addition to the marketing toolkit of the advanced Mobile Phone Operator, and Ildiro Analytics is a world leader in this field.

This case study illustrates one of the many ways in which it may bring benefits.

Further information

Many more of our case studies cannot be published due to confidentiality.

For more information about these, or about how Ildiro can help your business, contact us at info@ildiro.com