

CRM problematic

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Research and Innovation

The Co-operators, assurance et services financiers

Agenda

1. Who are we?
2. Client analytics
3. CRM problem
4. Available data

Connect with
a company built on
co-operative values.

1 – Who are we?

- 100% Canadian-owned co-operative
- Established in 1945 by Saskatchewan farmers
- 4,978 employees in Canada
- One of the biggest Canadian insurers
- **Active promoter of a sustainable society**



1 – Who are we?

- **P&C**

- 1 100 000 vehicles
- 743 000 houses
- 145 000 businesses
- 36 000 farms

- **Travel**

- 1 000 000 clients

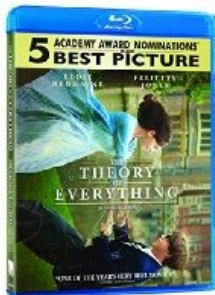
- **Life**

- 617 000 covered lives

2 – Client analytics



Related to items you've viewed [See](#)



It's time for a break!

Destinations we think you'll like

Punta Cana

Playa del Ca...



[View Deals >](#)

[View Deals >](#)

Chercher des personnes, des lieux ou d'autres choses

Publication suggérée

The Co-operators
Hier à 09:30 ·

Be honest, are you guilty of these driving habits?



7 of the worst things you can do to damage your car

Time and again, we ignore or do certain things to our vehicles that will almost always result in massive repair bills.

DRIVING.CA

59

41 partages

J'aime Commenter Partager

Denis Fortin,

You might also be interested in these accounts.



Suggestions based on **Team Garmin-Sharp**



Jonathan Vaughters @Vaughters

I've dedicated my life to professional cycling, anti-doping, and...

Followed by [ghincapie](#) and 15 others.

Follow

Our vision:

the co-operators
A Better Place For You

Main Menu > Customer 360-Degree View

Activities

Left | Right

Overview of - ALLAN STEADMAN

- All Activities - (11)
- Support Cases - (4)
 - Closed - (2)
 - Open - (2)
 - View All
- Claims - (3)
 - Close - (2)
 - Open - (1)
 - View All
- Active Leads - (1)
 - Open - (1)
 - View All
- Closed Leads - (3)
 - Closed - Won - (1)
 - Service Completed - (1)
 - System Closed - (1)
 - View All
- Correspondence - (0)

Outstanding Activities

Item ID	Item Type	Type	Description/Summary	Policy	Action By Date	Status	Rating/Priority	Campaign Name	Sales Team/ Provider Group	Sales Rep/ Assigned To
Client information										

All Activities

Item ID	Item Type	Type	Description/Summary	Policy	Action By Date	Status	Last Modified	Created	Sales Team/ Provider Group	Sales Rep/Assigned To
Claims										

Policies

Policy	Type	Description	Status	Source Status	Servicing Agent	Policy	Date
Products							

Search for Client Archived Information

New Submission

+ Person to HH | + Company to HH | HH Split | New Search | Notify | Correspondence | + My Contacts | Reload | Top of Page

😊 Added a vehicle (+)

↑ Upsell opportunity



3 – CRM problem

- **Develop a framework for 2 models:**
 - Client retention (churn) : Will the household leave the company?
 - Life cross-sale : Will the household add a life product?
- **4 questions**
 - A. What should the response variable be?
 - B. Which statistical approach should be used?
 - C. How can we incorporate and define event variables?
 - D. How can we validate the model and measure performance?

A. Response variable

- What should the response variable be?
 - Cross-sell vs retention
 - What time-frame should we use?
 - Is it feasible with the available data?
 - ...

B. Statistical approach

- Which statistical approach should be used?
 - Discuss the pros and cons of different modeling techniques.
 - Identify the best modelling technique to be used for the project.

C. Event variables

- How can we incorporate and define events?
 - What is the best approach?
 - Are there limitations?
 - Long-term view : include events such as marriage, first house purchase, etc. into the predictive models.

D. Validation and performance

- How can we validate and measure the performance of the models?
 - Identify performance/quality metrics.
 - Measure model quality.
 - Compare model performances.

Event history analysis

- If we have time we could:
 - Discuss how to model the next-best action,
 - Discuss event history analysis,
 - And other ideas!

CRM wish list

- A proposal for each question:
 - Response variable
 - Statistical approach
 - Event variables
 - Validation and performance metrics
- The more ideas per question the better!

4 – Available data

- Data set is a subset of our Ontario book.
 - Information at the policy, household and neighbourhood levels.
 - **Training set:** 43 173 households
 - **Test set:** 44 531 households
 - Data pre-processed in two structures:
 - A. By policy – one line per household-policy pair
 - B. By event – one line per household-change pair, where a change is a gain or a loss of product.

Questions ?

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Modelling techniques explored

- We are constantly exploring:
 - Decision trees
 - Linear regression
 - Neural networks
 - Survival analysis
 - Text mining
 - ...
- We must keep in mind who will be using our models!

Current performance metric

Gain Curve

