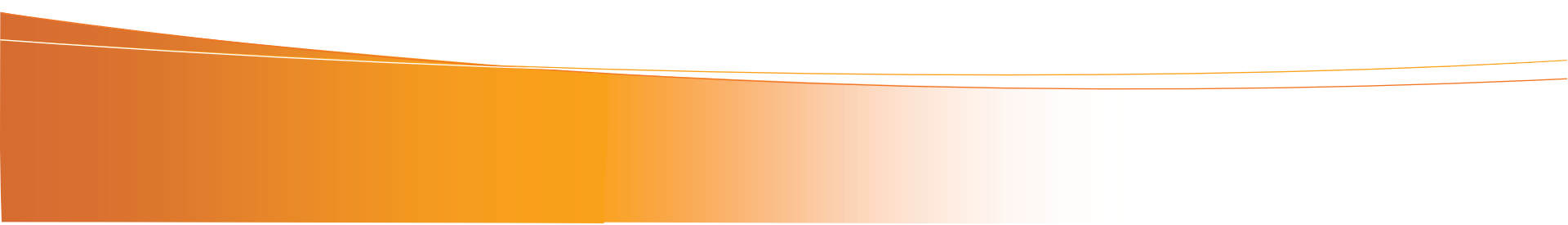


Making the Most of Your Customer Information

A VortexDNA Presentation

Case Summary

- Client: leading US auto insurer
 - Goal: Provide improved risk segmentation
 - Metric: Reduction in residual error
 - Data: Historical client data,
VortexDNA profile data
 - Results: 7.5% reduction in residual error
- 

Benefits of Segmentation

- Improved segmentation reduces residual error for client's prediction
- Allows client to:
 - Reduce prices for low-risk customers
 - Increase prices for high-risk customers
- Increases client's market share and shifts high-risk business onto competitors
- Segmentation Benefits Calculator:
<http://www.vortexdna.com/content/calculator.html>

System Overview



Sample of Client's population

Questionnaires,
games, browser
extension



Play the game



Position:	A	B	C	D	E	F	G
	3	5	2	1	4	5	1
Position:	A	B	C	D	E	F	G
	3	5	2	1	4	5	1
Position:	A	B	C	D	E	F	G
	3	5	2	1	4	5	1

VortexDNA database

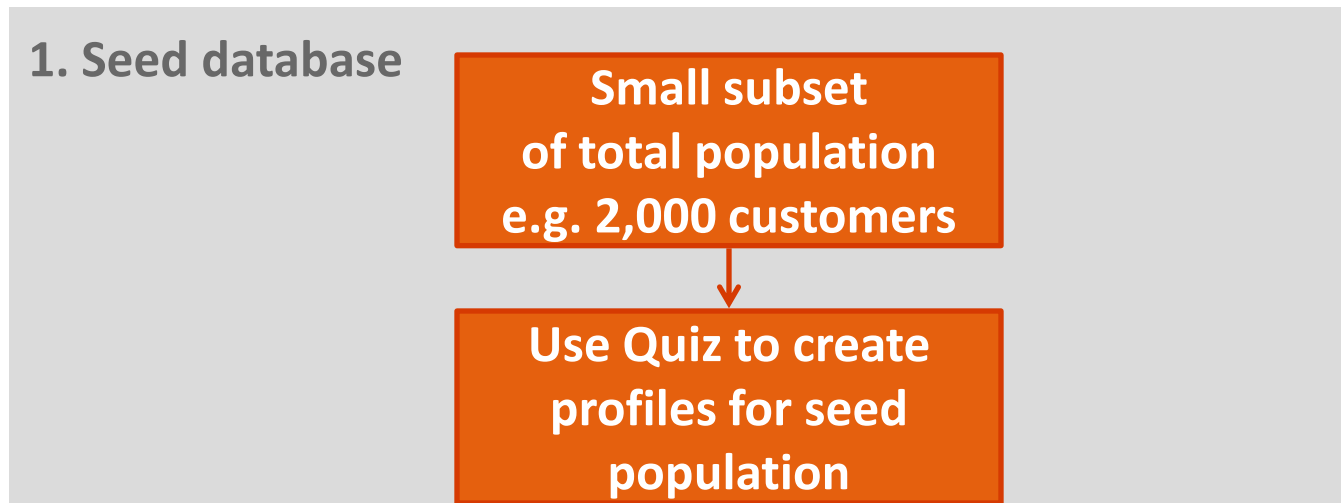
Iteration process



Residual error predictions

1. Seeding Process

A small sample of the client's customers (approximately 2000) provided seed data by interacting with VortexDNA data in the form of an online game



Online Game

Just for fun, discover the car for you



Click on the color or image you like best ...

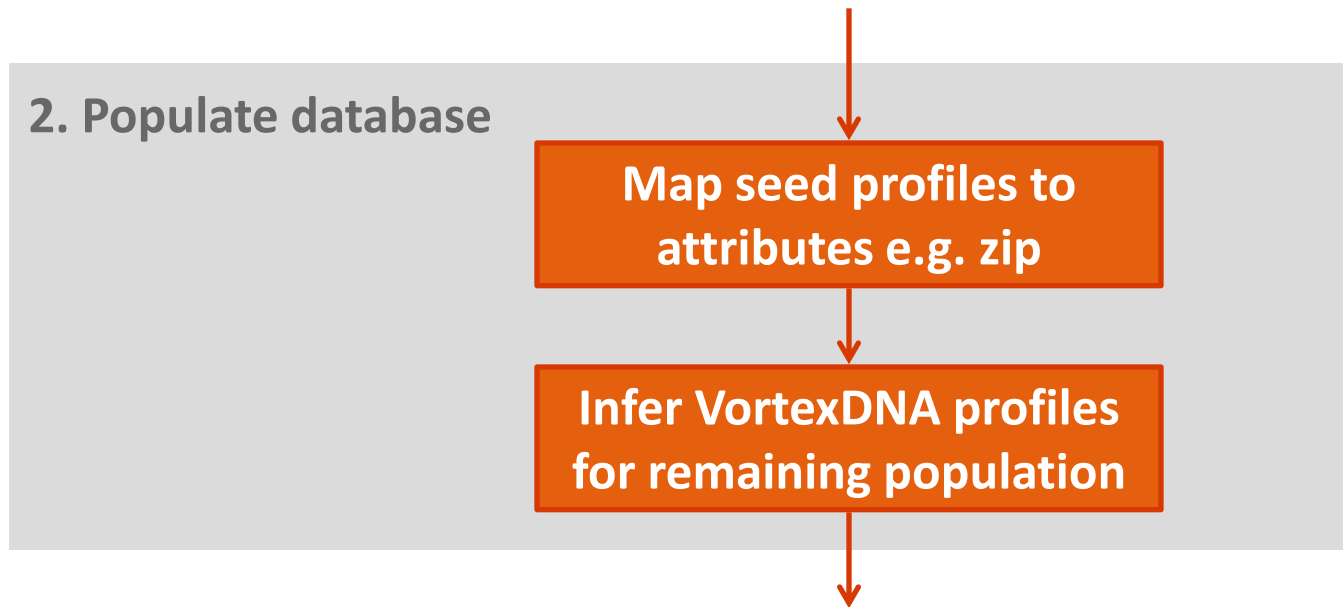


 **Web Genome Project**
A Map of the Web

Genome Profiles

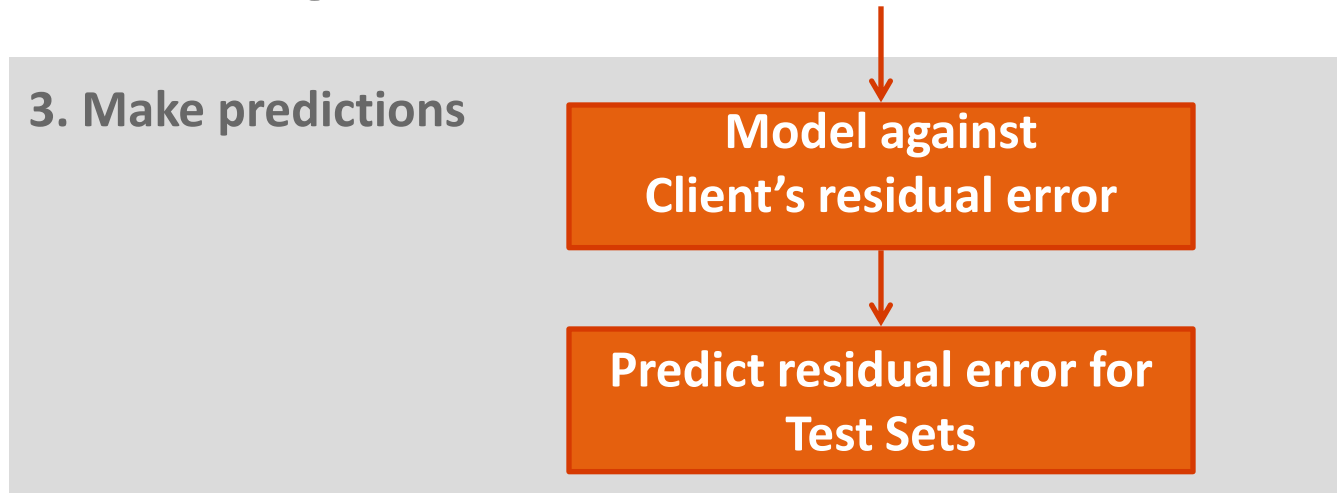
	Marker1	Marker2	Marker3	Marker4	Marker5	Marker6	Marker7
Bucket1	4	3	5	4	9	3	9
Bucket2	8	2	9	1	6	10	6
Bucket3	7	2	2	6	4	5	6
Bucket4	6	1	2	1	8	2	1
Bucket5	2	5	2	10	3	5	5

2. Mapping Process



Attribute data is existing data the client holds regarding its customers - e.g. age, zip code

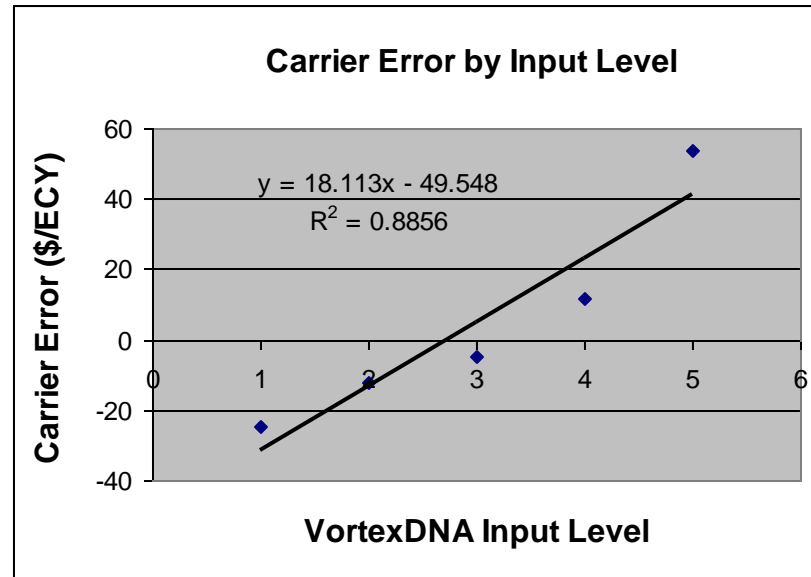
3. Segmentation Process



We developed our model by regressing the genome profiles for a Model Set of customers against the residual error of the client's predictions

Predictions were made on multiple Test Sets containing data on customers that were not included in the Model Set

4. Improvement Metric

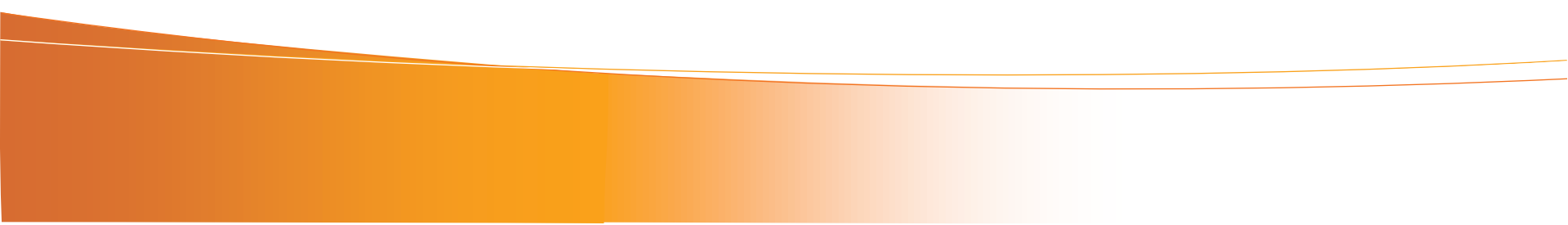


- We took the gradient of the linear fit as the measure of reduction in residual error per level
- We converted the result into \$ per unit of exposure
- More information on Gradient method:
<http://www.vortexdna.com/content/tools.html>

Validated Results

Coverage Type	Reduction in Residual Error (\$ per unit of exposure)	% Reduction in Residual Error
Bodily Injury	\$16.69	6.53%
Property Damage	\$21.92	9.36%
Collision	\$46.06	9.22%
Comprehensive	\$6.74	4.05%
Total	\$91.41	7.91%
	Underwriting Improvements (\$ per policy per annum)	% Improvement in Accuracy
	\$77.22	7.57%

Summary

- VortexDNA data and algorithms provided a new segmentation opportunity
 - Easily integrated with client's data
 - Demonstrated improvements to predictive models of ~7.5%
 - Test Set results independently validated by client
- 

Further Information

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