



Ten Principles of Contact Optimization

White Paper

SUMMARY

Today's marketers face many challenges. Critical to marketing is developing efficient and effective contact strategies for your customers using tools like Contact Optimization. The recent proliferation of data and marketing channels has contributed to this difficult decision of who is sent what. In this white paper, we outline ten principles of Contact Optimization that should be considered for every marketing contact strategy.

Introduction

Today's marketers face many challenges in developing relevant contact strategies for their customers. The sheer volume of data and marketing channels has contributed to this difficult decision of who is sent what. There are ten principles to Contact Optimization that can be used to optimize results for virtually every marketing contact strategy.

My interest in Contact Optimization (CO), which turned into a lifetime passion began two decades ago while I was at Fingerhut. They were a big league cataloger who could not stop adding more catalogs to their mail plan even after reaching an average of two mailed per week. The perceived unique, incremental catalogs were not generating incremental revenue. It was time to stop the madness. A revolutionary solution was desperately needed.

My analytic colleagues and I designed a solution to optimize each customer's catalog contact strategy. We removed ineffective marketing efforts with minimal loss in revenue and redirected those savings towards more productive circulation. This million dollar success story was the first of many similar ones to follow. I now work on CO with a number of companies using Clario Stream, the solution we've developed that encompasses the principles I'll present today. Before I introduce the 10 principles, I need to briefly define four important terms.

1. Customer Definition

A **customer** is any recipient of a marketing campaign. CO is a solution for any type of customer being marketed a product or service. Consumers and businesses qualify, as do prospective and existing customers. Consumers can be individuals or households. Businesses can be commercial, non-profit, government organizations, or most any institution or entity.

2. Contact

For CO, a **contact** can be any planned, outbound marketing touch point directed to a customer. This would include print, email, telemarketing, and any other scheduled touch point initiated by marketing. Not included are any customer-initiated touch points.

3. Asset Classes

An **Asset Class** is any business unit defined by a combination of customers and contacts. They form your important marketing business units – customers and contacts grouped however you manage these assets. The total marketing budget is parsed into a handful of asset classes, each can be thought of as unique entities making up a marketer’s portfolio. The asset classes enable macro management of circulation strategies and marketing costs.

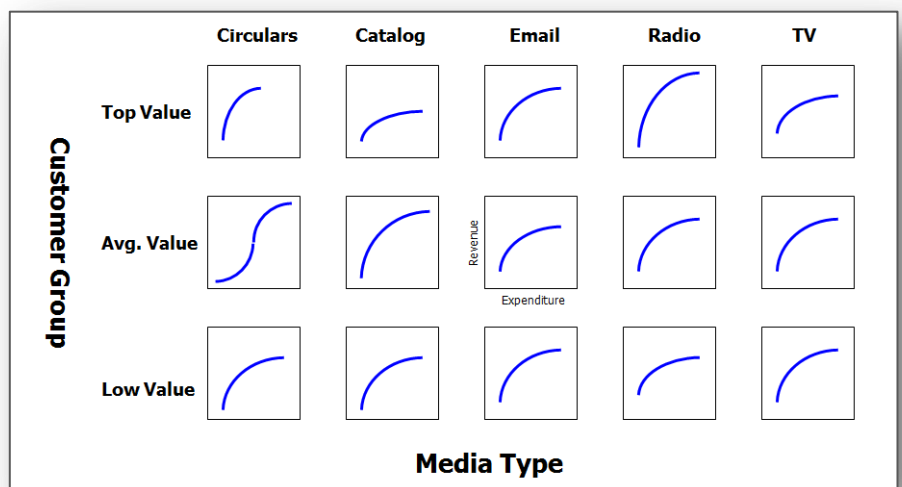
In this example, we see how one marketing organization defined its asset classes. Purchase recency and channel define five mutually exclusive Asset Classes. Within each asset class, the marketer can manage their budget and define their circulation strategies.

ASSET CLASSES



PORTFOLIO PLANNING

CO can be enhanced to become your marketing enterprise budgetary tool. Manage all your asset classes to maximize the efficiency and effectiveness of your contact strategies. Find the optimal spend to reach future performance targets.



4. Contact Optimization

We should also define **Contact Optimization**. CO is the process of finding the best contact strategy for each customer within and across asset classes. This usually means maximizing the financial return on your marketing expenditures with the best contact decisions for each customer. The objective is to find the best stream of contacts to send each customer.

There are 10 important principles behind CO. Let's examine them one by one.

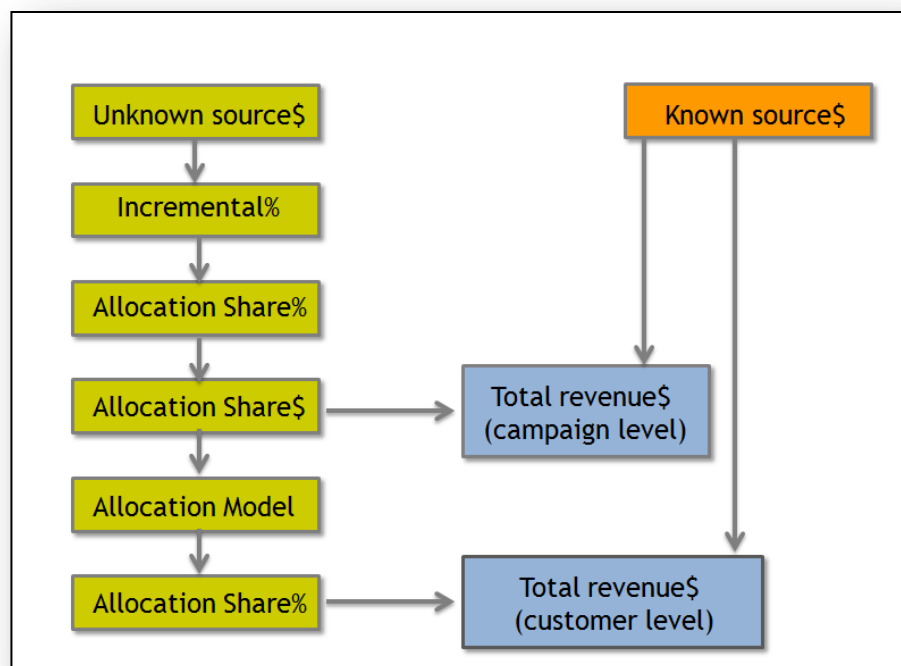
1. Revenue Attribution
2. Predictability
3. Granularity
4. Longitudinal
5. Revenue Cannibalization
6. Advertising Saturation
7. Optimal
8. Revenue Flow Back
9. Future Value
10. Synchronization

The Revenue Attribution Principle: Each purchase is credited to its marketing contact source.

Often called match back, this process attributes the revenue of every purchase to the marketing contact which triggered the purchase. Without good attribution, revenue is credited to the wrong marketing effort leading to sub-optimal circulation decisions. Orders placed on the internet may have been triggered by a catalog mailing. Retail store purchases might be due to an email. Good revenue attribution yields smarter circulation decisions.

Some purchases are easily traced to their marketing source; many are not. Strong inference algorithms like the one represented by this chart will allocate those untraceable orders to the most likely source or sources. The investment into holdout samples and advanced analytics pays great dividends with a solid revenue attribution process. Precise revenue attribution is behind any effective CO solution.

REVENUE ATTRIBUTION

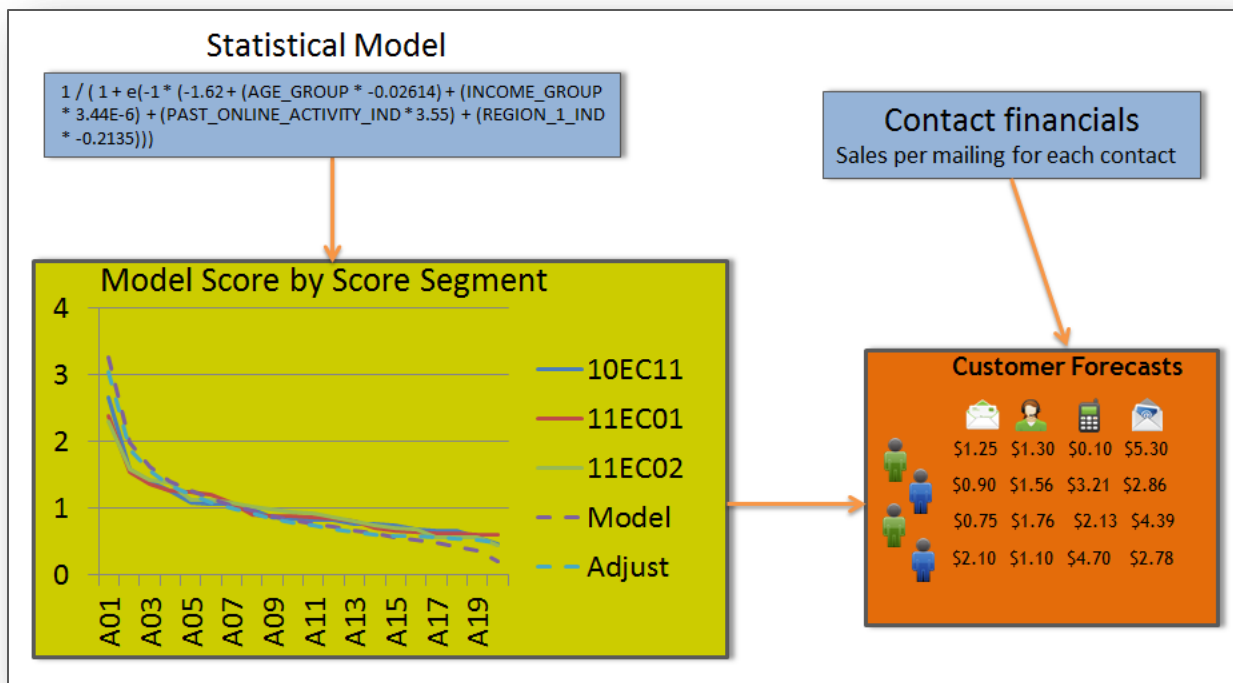


The Predictability Principle: Accurately predict the outcome of each contact with each customer.

A key to making smart circulation decisions is the ability to compare the performance of any customer and contact combination to any other. Whether the decision is made based on a demand or profit metric, an accurate performance forecast lets CO examine all possible customer/contact combinations to choose the best.

Strong statistical models are needed to predict the outcome of each contact to each customer. The models are built on past marketing efforts with fully attributed revenue. Previously the statistical models rank ordered customers from best to worst within each contact. Now the models must produce precise predictions of each circulation decision. The predicted score should align with the actual performance shown below in the graph. Special attention by the modelers and marketers is required to which yield precise performance forecasts for each customer and contact as shown in the matrix in the lower right below.

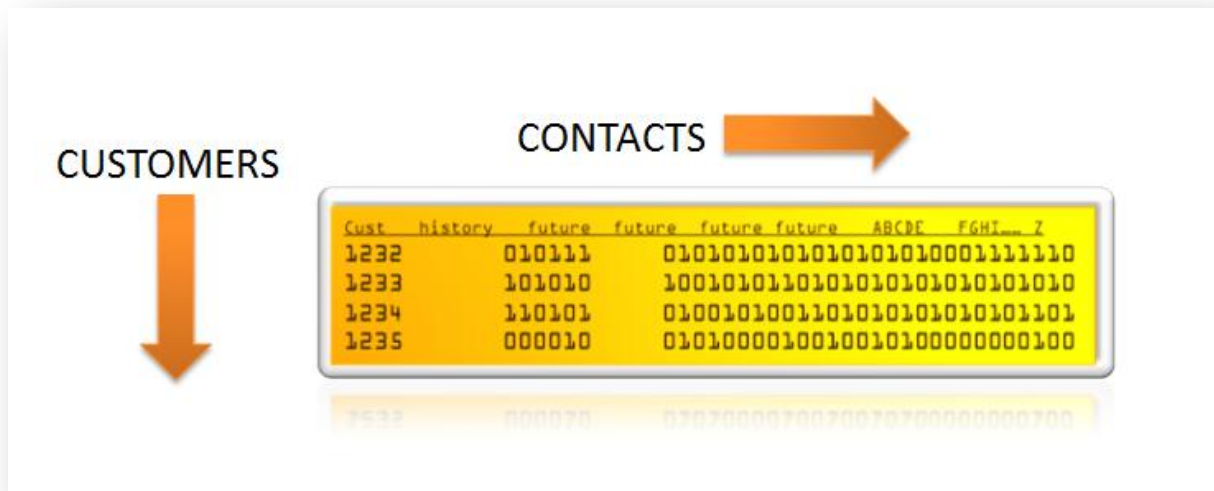
PREDICTABILITY PRINCIPLE



The Granularity Principle: Each customer gets his or her own contact stream.

There are no customer segments or contact groups with CO. Circulation decisions need to be made at the finest level of granularity possible, for every combination of customer and contact. If there are 30 contacts and one million customers, there are 30 million yes/no circulation decisions. This granular decision-making yields a stream of contacts independently for each customer (represented by a string of zeros and ones in this matrix where each row is a customer and each column a contact). Just like snowflakes, no two contact streams are alike.

GRANULARITY PRINCIPLE

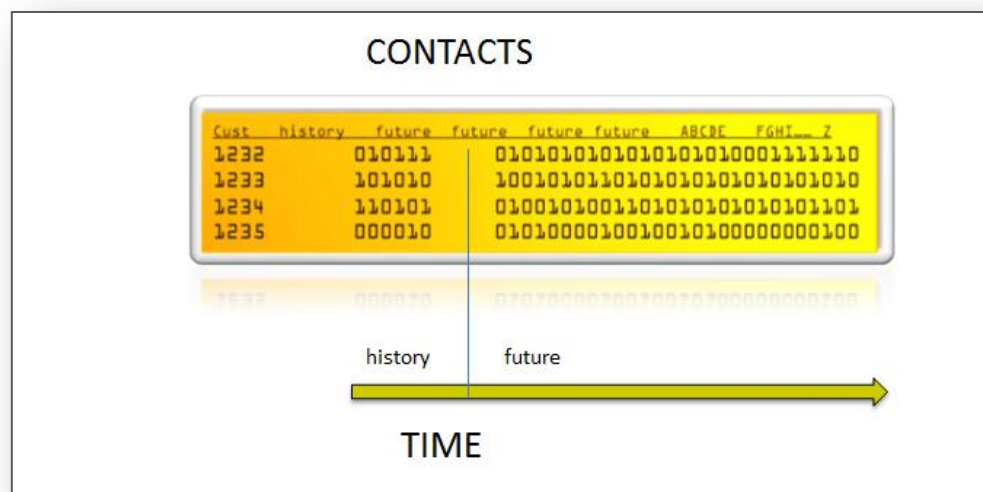


The Longitudinal Principle: Optimize multiple contacts from all brands and channels across time.

A major advancement over traditional circulation decision-making processes is the added dimension of time. Traditional processes are vertical, point-in-time decision-making – given a contact, decide which customers should receive it. A vertical optimization solves each column in this matrix independently of the others. The result is the best customers qualify for every contact, the worst customers qualify for none, and only the marginal ones get reasonable contact strategies. This is not optimal.

CO adds the longitudinal or horizontal dimension. For example, given a specific customer, decide which contacts to send them. This enables you to choose from many contacts spanning time. The optimal circulation decisions are found by comparing the matrix cells to each other – vertically comparing customers within a contact and horizontally comparing contacts for a customer. With this wider peripheral vision including surrounding circulation choices, CO produces smarter decisions.

LONGITUDINAL PRINCIPLE



The Revenue Cannibalization Principle: Customer contact performance is impacted by past and planned circulation decisions.

This principle represents the single most challenging aspect of CO.

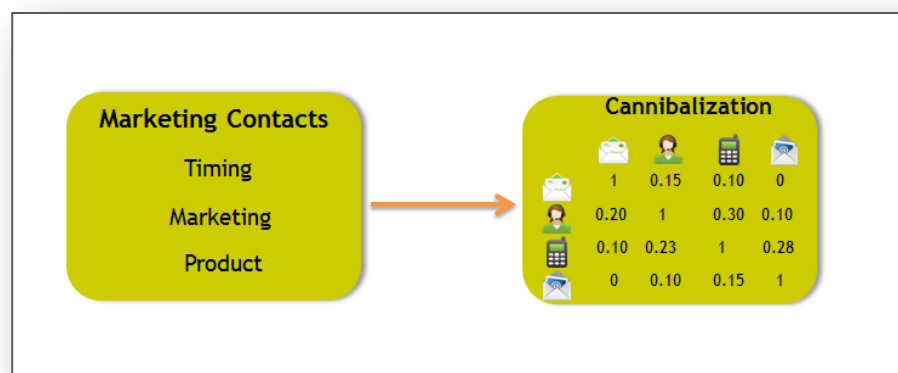
Revenue cannibalization refers to the expected revenue that one marketing contact takes away from another. For example, if mailing one contact to a customer projects \$3 in revenue and a second contact \$2 to that same customer, the total revenue if that customer were sent both is usually less than the sum of the two. It may total \$4.50 instead of \$5. The perceived loss of 50 cents is due to the natural phenomenon of revenue cannibalization, or the interaction between the two catalogs.

Measuring the impact of mailing one contact with another is impossible when you have many contacts in your marketing plan. There are simply too many combinations to test and measure.

A better approach is to build an algorithm – one which compares any pair of contacts based on their timing, marketing, and product similarity and then generates a similarity matrix like you see here. More similar contact pairs equate to higher levels of shared revenue.

The model adjusts the revenue forecasts of contacts for customers based upon the other contacts in their stream. For example, contacts in close proximity and sharing similar content can impact revenue by 10, 20, or even 30% as seen in the matrix below. This is critical to picking the best set of contacts for a customer.

REVENUE CANNIBALIZATION PRINCIPLE

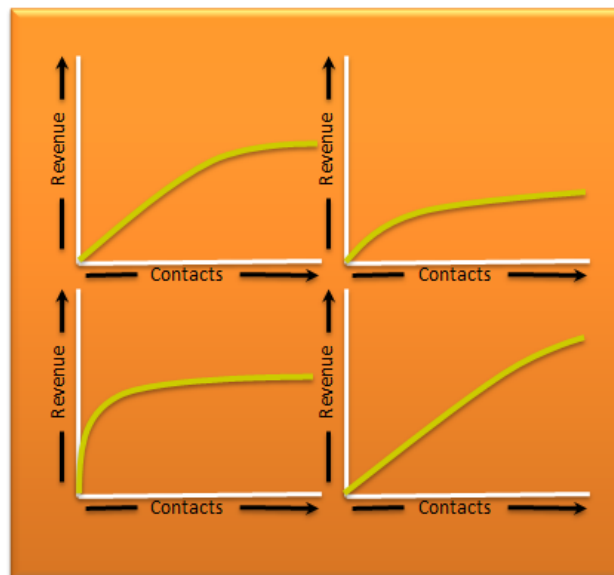


The Saturation Principle: For each customer, know when adding another contact adds insufficient incremental revenue.

The cumulative effect of revenue cannibalization is advertising saturation. I represent this principle with graphs showing the cumulative number of contacts generating additional revenue. While choosing the best contact stream for a customer, the incremental demand shrinks with each successive contact chosen until the next best contact yields little if any additional revenue. You have then reached the saturation point. No additional expenditure generates a reasonable return.

The revenue generated at each contact treatment level is computed using the Revenue Cannibalization Model (previous principle). These curves show where to stop spending your marketing dollars for each customer.

SATURATION PRINCIPLE



Productivity Curve

The Optimal Principle: The marketing budget is optimally allocated to the asset classes then spent on the optimal contact stream for each customer.

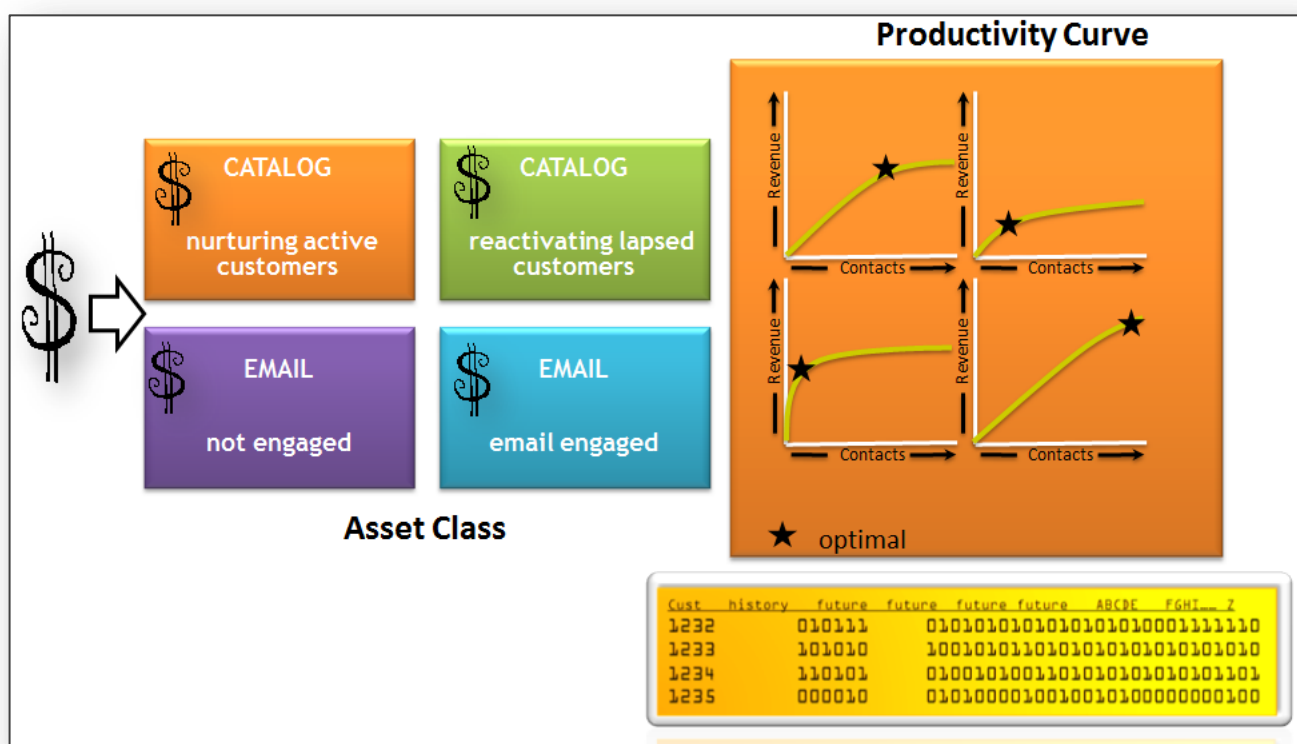
By its very name CO implies the importance of optimization, or finding the best solution. It is a two-stage optimization:

- Allocate the optimal marketing dollars to each asset class.
- Find the optimal contact stream for each customer within its asset class, given its allocation.

For each asset class, its share of the marketing budget can be derived through simulation or optimization techniques. A key underlying assumption: know the relationship between marketing spending levels and the resulting revenue generated.

Once you have the budget allocated to each asset class, picking the best contact stream is best done with a greedy optimization rule. It works like this for each customer: Pick the best contact, apply any revenue adjustments to the remaining contacts based upon the Revenue Cannibalization Model, pick the next best contact, and repeat. This algorithm provides an efficient, nearly optimal answer.

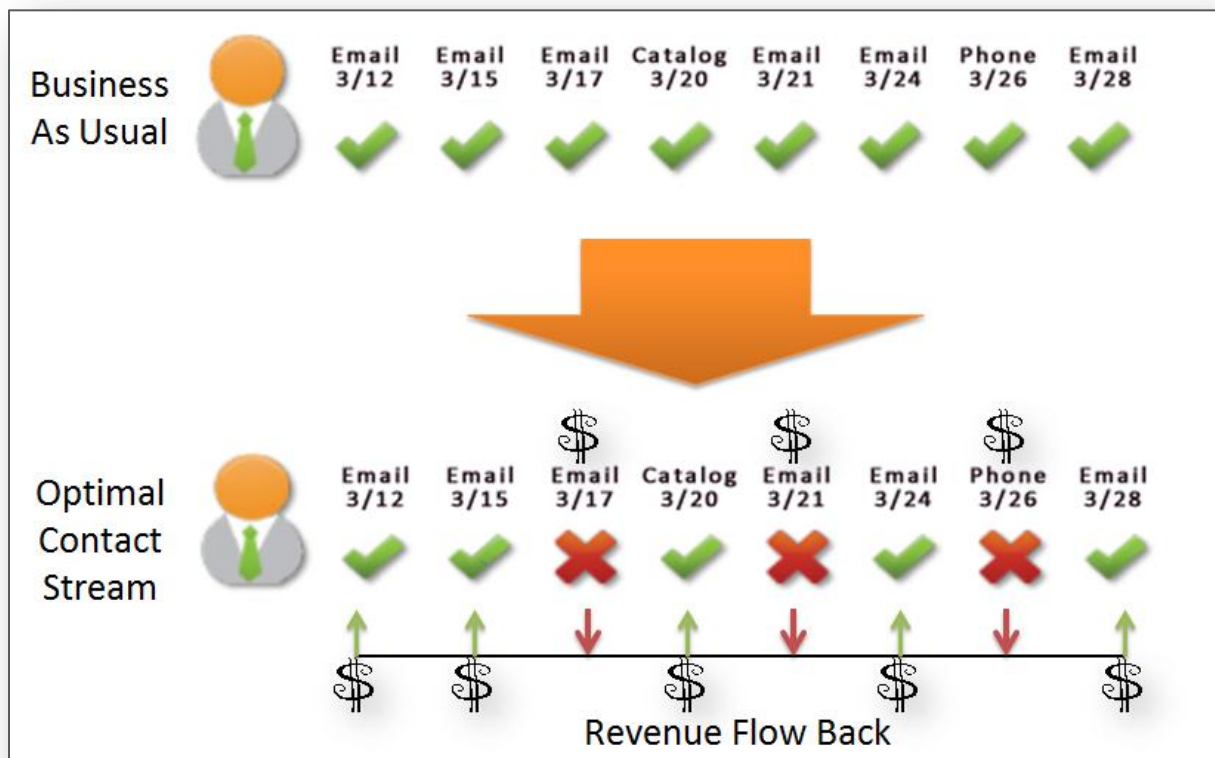
OPTIMAL PRINCIPLE



The Revenue Flow Back Principle: Revenue expectations of surviving contacts change after dropping redundant contacts.

When CO begins removing redundant contacts from a customer's contact stream, not all of the revenue associated with that dropped contact is lost. A portion of the revenue survives and is dispersed (or flows back) amongst the surviving contacts. Here you see the optimal contact stream drops 3 contacts and then redistributes some of the corresponding revenue to the surviving contacts.

REVENUE FLOW BACK PRINCIPLE



The Future Value Principle: Know each customer's value potential.

The future value of each customer can be accurately calculated with historical reporting and/or predictive modeling. With knowledge of a customer's future value, you can dictate bounds for your marketing spend that keep the treatment levels appropriate to the expected return. Here you see a sample report with customers overall generating \$35 over the next 12 months, but the value for customer segments range from \$15 to \$262. With this knowledge you can guide your contact strategy accordingly. These value-based contact bounds can govern your marketing spend.

FUTURE VALUE PRINCIPLE

Subsequent Order Information (12 months after trigger order):

Segment	% HHs rebuying	Ords per buyer	Sales per buyer	% Internet Sales	% Phone/Mail Sales	% Retail Sales	Contacts per HH	Mktg Cost per HH	12-Month Value
A	43%	2.1	\$ 138	22%	60%	17%	12.1	\$ 10	\$ 21
B	60%	5.0	\$ 336	7%	84%	10%	21.2	\$ 18	\$ 248
C	61%	4.3	\$ 398	3%	87%	9%	7.0	\$ 9	\$ 262
D	64%	3.3	\$ 298	7%	87%	6%	28.1	\$ 22	\$ 145
E	41%	2.1	\$ 276	12%	78%	11%	15.8	\$ 14	\$ 46
F	54%	2.4	\$ 282	8%	86%	5%	20.5	\$ 18	\$ 76
G	44%	3.9	\$ 176	16%	42%	43%	9.9	\$ 8	\$ 65
H	35%	1.9	\$ 172	15%	72%	14%	12.6	\$ 11	\$ 16
I	42%	1.8	\$ 178	10%	83%	7%	15.2	\$ 13	\$ 22
J	48%	2.0	\$ 178	45%	48%	7%	15.7	\$ 13	\$ 30
K	39%	1.9	\$ 167	50%	35%	14%	13.4	\$ 11	\$ 17
L	36%	2.6	\$ 86	8%	19%	72%	3.5	\$ 3	\$ 15
All	41%	2.6	\$ 161	11%	59%	30%	9.0	\$ 7	\$ 35

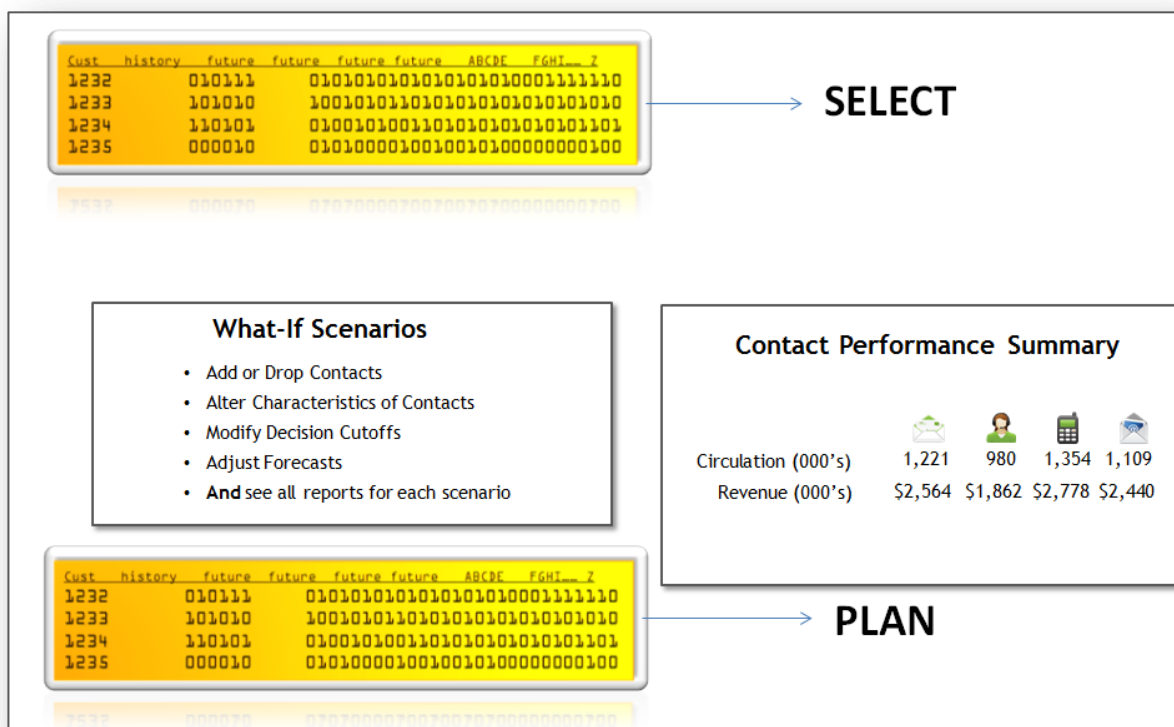
The Synchronization Principle: Align tactical decision-making with strategic planning.

CO enables you to synchronize both your marketing planning and your tactical circulation decision-making.

I've described the tactical decision-making features quite extensively, so what about contact optimization's planning potential? Well, you can transform CO from tactical to strategic by extending the optimization window to coincide with your budget timeframe then loading your budget assumptions. Optimize across 12 months and you have a planning tool.

The granularity, longitudinal, and other principles allow the detailed circulation decisions to extend across the budget window and to roll up for summary circulation and revenue reports. Simulate the impacts to circulation and performance by changing your marketing assumptions - add, drop, or modify contacts, alter performance forecasts, adjust decision cutoffs, and much more. The archaic spreadsheets previously used to generate next year's circulation plan have been surpassed with the more flexible, efficient and accurate CO planning tool.

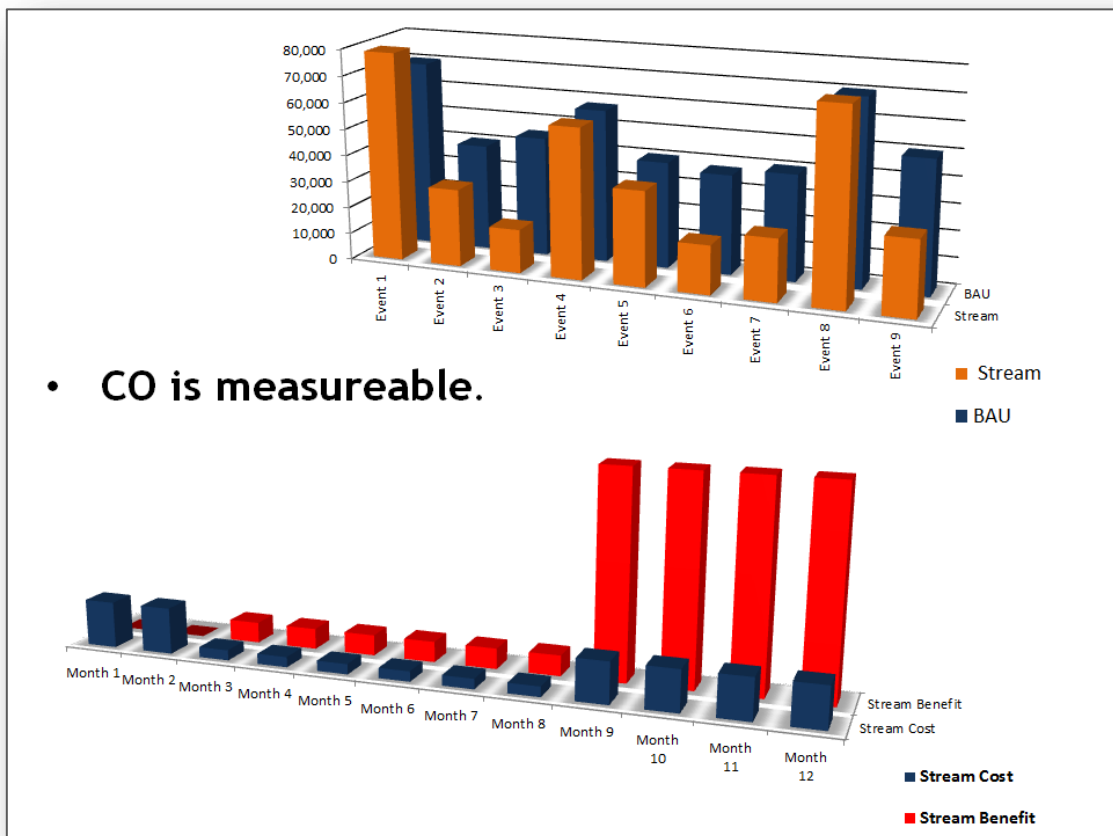
SYNCHRONIZATION PRINCIPLE



Contact Optimization is measurable.

An appealing characteristic of CO is that it is measurable. I recommend a head-to-head test between the circulation decisions made with optimization and those using the current process. Within a few months you will know the value of the optimized contact stream compared to business as usual.

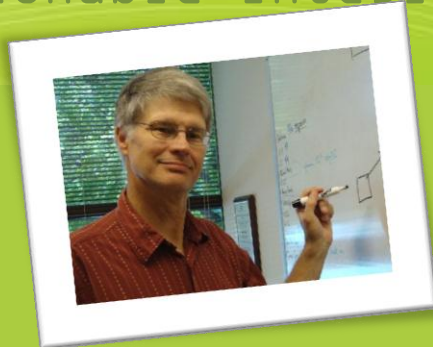
BAKE-OFF PRINCIPLE



CONCLUSION

Each principle of contact optimization is worthy of more examination, but hopefully this introduction whets your appetite to pursue CO for your organization. While it can seem a formidable undertaking, a growing number of marketing organizations have made a modest risk and reaped a huge reward within months. I am convinced every one of you will be using these principles to manage your contact strategies – it's just a matter of when.

Remove barriers **better data smarter decisions**
customer-level **insights**
actionable intelligence



About Randy Erdahl

Randy is an analytic marketing champion and is Clario's Executive Vice President, Optimization Solutions and co-founder. As the executive leader of optimization solutions, he provides vision and direction for Clario Stream Solution development, as well as technical leadership to sales, marketing and direct client interaction.

About Clario Analytics

Clario Analytics develops and markets marketing software solutions via a cloud-powered, software-as-a-service deployment model. Clario brings unique insight into customer behavior through sophisticated analytics and world-class expertise. Empowered with this actionable intelligence, marketers can make wise spending decisions and personalize their programs to achieve better results.

Clario Core is a cloud-powered analytical platform that transforms raw customer data into customer-level intelligence, allowing marketers to create more personalized programs and profitable results.

Clario Stream is a powerful contact optimization engine that helps marketers reduce marketing expenses and inefficiencies while improving customer interactions.

Founded in 2002 and based in Eden Prairie, Minnesota, the company is led by senior executives from the direct marketing industry with deep experience in analytical data-based marketing software and services. Their products and services are used by many of Multichannel Merchant's Top 100 print and online retailers.



Clario Analytics

7684 Golden Triangle Drive
Eden Prairie, MN 55344
Phone: 952-653-0980 or 866-849-3341
Fax: 952-653-0981
www.clarioanalytics.com