

# Exchange Solutions: Leading the way on Customer Engagement Innovation

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Very soon, Exchange Solutions will roll out an improved version of their customer engagement platform that will facilitate their data-driven approach to individualized offers faster and more effectively than ever before.

Brenda Higuchi, SVP of Analytics and Optimization<sup>1</sup>, along with the Exchange Solutions optimization team are currently working with the technology team to create the “third generation” of the core customer engagement platform using the most cutting edge, rigorous, adaptive algorithms available today. The new and improved optimization techniques will not only create a positive impact for Exchange Solutions’ clients and clients’ customers, but will have a bar-raising effect on the customer engagement industry at large.

Higuchi addresses how they are seizing opportunities in technological developments and how clients will benefit in the future.

**1. Brenda, your team has an extensive background in machine learning and algorithms. What made you decide to merge this expertise into your current optimization capabilities at Exchange Solutions?**

At Exchange Solutions we want to move our clients beyond the typical CRM approach which is based on historical customer behavior patterns: observe the behavior, put it into context with the past behavior, spend some weeks with those trends, then ultimately, react to it some days or weeks later, usually with an email. Our philosophy is that your best opportunity to communicate with the customer is right now while they are already engaged – so how can we facilitate that real-time interaction with the best information possible?

The team is passionate about building algorithms that can learn from real-time and past data and act optimally. Exchange Solutions has a diverse collection of data obtained from retail to e-commerce and also financial services. The diversity of such dynamic data sets plays a tremendous role in assessing, understanding, and improving customer interactions through the use machine learning algorithms.

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<sup>1</sup> <http://www.exchangesolutions.com/meet-brenda-svp-analytics-and-optimization/>

I look at our work as being about bringing the analytics from the back room into the operations. Rarely are they baked into the platform. To do that, you need the support of a methodology like machine learning to facilitate real-time optimization.

## **2. What exactly is “machine learning” and what are some of its implications for the customer engagement industry today?**

Machine learning is a field in computer science that involves development of rigorous adaptive algorithms that can learn and make decisions from data. It requires a solid knowledge of statistics, linear algebra, as well as fundamental concepts in computer science such as computational complexity and sample efficiency of algorithms.

A lot of analytics today are based on a predictive approach - focusing on what customers have done in the past in order to determine how to motivate them to do more of the same thing. Our main focus with machine learning is optimization - so we produce the most optimal experience for the customer, as well as the most optimal outcome for us and our clients.

Let's consider an E-commerce website such as Amazon. Every time that someone performs a search they see some recommended items or books that in many cases are very relevant. That probably increases customer spend and engagement which is good for both Amazon and its customers. Amazon is at the forefront of using machine learning to facilitate these types of recommendations.

Our big difference is that we use analytics to look for what behaviors people *aren't* doing. Most organizations are looking for customers that have a high propensity to do something, and then build their messaging and offers to encourage them to perform that behavior – based on the 80/20 rule. We focus on discovering more about the people on the low propensity side – customers less likely to do what we want them to do – and then using individualized offers to encourage them to act. The machine learning aspect is about taking that feedback loop and applying it so the model then calibrates and adapts itself to what we learn about this customer in order to optimize that experience in real-time.

## **3. In what ways will this new approach improve Exchange Solutions' core product offering?**

Our platform was designed to facilitate value exchange optimization<sup>2</sup> – the right message, in the right channel, with the right incentive, to drive the right behavior – and the optimization engine will help us do that better and faster and more effectively. What we're doing today is pretty great – we're getting fantastic results for clients, but this will make it even better.

For example, for one of our clients is developing an ecommerce capability. We've got an intelligent customer engagement program running with them that we've proven has driven incremental sales. The conversion rate for those who engaged with our offers was almost four times higher.

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<sup>2</sup> <https://www.exchangesolutions.com/approach/>



Where machine learning comes into play is with the customers who ignored the offer - what can we learn from them? So that's that feedback loop – how do we make sure the next one we present the customer is more relevant and get them to accept it? For the client, that was a really important finding. Now they're excited about machine learning and optimization.

Specifically we are looking at:

- a) Developing the most sophisticated machine learning algorithms that can predict customer behavior gaps and target low propensity customers in real-time by recommending some incentives to them to improve their engagement via an exploration-exploitation strategy which is included into algorithms.
- b) Through a feedback loop, improving the exploitation-exploration strategy of the algorithms.
- c) Building a machine learning infrastructure that makes it much easier and faster to automate tasks while measuring the performance in real-time

#### **4. How will this new approach help Exchange Solutions to further enhance client results?**

We've generated a lot of value for clients by getting better at this. In return, it just makes a lot of value for us, not just in our capabilities but by being able to put our money where our mouth is. We work with some of our clients on a pay-per-performance model, so the better they do, the better we do, and the more value the customer gets out of it.

So our end goal is trying to achieve that win-win-win - where the client's customer sees value because they get a relevant incentive, our client sees value in a more valuable customer, and we realize the benefit of helping the client achieve that.

#### **5. How will the work being done to enhance your customer engagement program impact the customer engagement industry?**

I was speaking at a conference recently and one of the topics of discussion was around this "holy grail" of the 360° view of the customer and needing to know everything about the customer in order to enable us to be smarter and engage the customer better. I challenged the group to ask – is that really the necessary goal anymore?

At the end of the day, the real-time data available in this moment means a lot more than what a customer did yesterday, or last week, or last year. We recently did some work with a client who doesn't have reams of transactional history or customer profiles. In fact, most of the customers who check out on their ecommerce site do so anonymously. We literally have an 8 minute session, with 10 – 20 events or clicks that are happening within that session, to make a decision whether that person is going to convert. And we're able to interact with the customer data at that moment in time to find out what do we need to offer this person in order to make (the conversion) happen?



We're not using 5 years of historical data and a customer profile and this and that to make that decision. We're literally just using the information we have at this point in time - how they navigate the website, the products they look at, did they read reviews, what were they doing in the minutes up to the point in time that they put the product in the basket?

In the past, we were very focused around just that action of a purchase or whatever activity we happened to be measuring, that all our analysis focused on that. In this big data world, we have a lot more knowledge about what happens before and after the transaction, so the transaction itself has become less of a focus. And as I said, a lot of that other stuff is more relevant. So when we talk about customer engagement as an industry, that's what we need to be focusing on now. Engaging the customer isn't about observing a bunch of stuff and then reacting to it – it's about what's happening in the moment. I don't think the industry's quite there yet. I think that's where companies like Exchange Solutions are leading the charge.

For more cutting edge news about Exchange Solutions and the customer engagement industry, check out our [blog](#)<sup>3</sup>. There, you'll find more expert tips, industry trends, and other useful resources to help you lead the charge in your customer engagement program.

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<sup>3</sup> <http://www.exchangesolutions.com/category/all-posts/>