DATASTAX

BIG DATA VS. REAL-TIME DATA

Are You Really Delivering Real-Time Customer Experience?

The power behind the moment. | DATASTAX

Volume Is One Thing – Value Is Another

About 10 years ago big data was quickly becoming the next big thing. It surged in popularity, swooning into the tech world's collective consciousness and spawning endless start-ups, thought pieces, and investment funding, and big data's rise in the startup world does not seem to be slowing down.

But something's been happening lately: big data projects have been failing, or have been sitting on a shelf somewhere and not delivering on their promises.

Why?

To answer this question, we need to look at big data's defining characteristic – or make that characteristics, plural – or what is commonly known as "the 3 Vs":

Volume

Variety

Velocity

Anyone reading this already know how these apply to big data and how much all three have increased over the last 10 years.

But there's a V missing here, and that's "value".

How do you generate ***value*** from the data you've been collecting so diligently in your data lake?

Turns out that's pretty hard to do.

And that's because your data is only as valuable as the speed and extent to which it can be operationalized. If you take all the 5 main types of data typically dumped into today's most powerful data lakes – that is, individual data, relationship data, activity data, behavioral data, and environmental data – and run static analyses against it, it's useful but nowhere near as useful as being able to operationalize the data – that is, use it to build real-time, innovative and impactful customer-facing applications. And using every facet of every data type to build powerful, customer-facing cloud applications, at scale and in real time, is something unique to DataStax Enterprise.

The Advent of Customer Experience

It used to be that data was only created by people, such as the employees of a company. They'd do their work, and thereby create information, or data, and at night the computers they used would process this data and update their files.

But as more and more data poured in from more and more sources and channels, the data world shifted into real time. Then companies like Netflix, Amazon, and Sony significantly upped the bar by using that data to raise customers' expectations of what "customer experience" could be. Companies across industries started realizing that no matter what business they are in, the CX they need to provide needed to match these new expectations.

Real-time personalization at scale became critical in daily life around the time when everyone started buying iPhones and tapping their way into websites and applications from wherever they happened to be at the moment. This created an influx of data, and with that data, a huge opportunity for enterprises: a chance to learn behavioral preferences at the granular level and apply that insight to current interactions.

This real-time but historically informed dance between the customer and the company eventually became foundational for "customer experience". You still needed to provide "good service", but suddenly what mattered most was how well you used what you knew about the customer to personalize that service ***as it's happening*** in real time whether it's happening via the web, an app, or over the phone with a service rep.

Capitalizing on the Moment

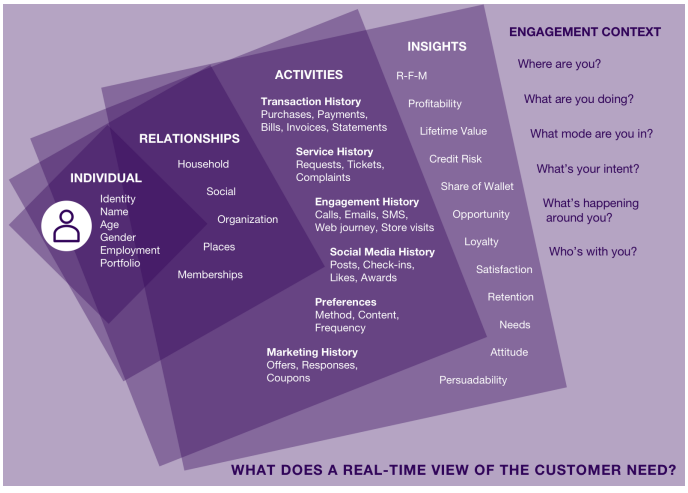
Companies are expected to spend more than $57 billion on big data technology this year and well over $60 billion by 2020.

That's a staggering amount of dough being dumped on big data, and for good reason: big data is clearly still very useful.

There's still a strong case to be made for business intelligence, business process optimization, hypothesis testing, and all the other things you can do with big data. You can use existing big data solutions to discover whether you have product-market fit, for instance, which is valuable.

But when it comes to ***interacting*** with your customers, you need real-time capabilities, and big data doesn't provide those.

Big data can provide good customer experience via segmentation and process optimization and targeting, but if you want to provide rich, personalized customer experiences in the moment, you need to be using more than just big data.



The Three Steps of Real-Time Customer Experience

The actual process of producing real-time customer experience occurs in three steps:

Step 1. Data influx

You have a large volume of data being processed in real time and generated by countless devices, interactions, applications, programs, timelines, and touchpoints.

This relates to not just what the customer is directly doing with you, but also other real-time data relevant to that interaction (such as location, preferences, demographics, social media interactions, etc.)

Step 2. Real-time data analysis

The application's underlying data must be hyper responsive to the customer's interactions. That is, it must be able to take this incoming slew of data and use it along with existing legacy systems and big data to surface powerful and immediate insights in real time.

This part is ***critical***.

Simply analyzing data as it comes in is not good enough; the real-time data needs to be included with the existing data from a wide range of other data sources in order to give the complete real-time picture and make it correctly actionable right at the moment when it is needed.

Step 3. Combining actionable insights to impact customer interactions in real time

This means making in-the-moment, real-time customer experience actually happens via digital channels or customer service interactions, and having technology that can make this happen automatically.

The Importance of Data Management for Customer Experience

Having the ability to comprehensively manage and create value from all the data relevant to your interaction with your customer is imperative to the rich, contextual, in-the-moment experiences your customers demand or they will quickly switch to your competitor. Here are some things to consider when choosing a data management platform

1. Is it designed to power your applications with comprehensive data?

You want a data platform that can handle all types of workloads – business operations, search, analytics, etc. – in an integrated platform without having to deal with multiple systems for pieces of data.

2. Does it integrate big data and real-time data at scale?

Remember the whole point of all of the above – you need ***both*** big data and real-time data to make your real-time customer experience initiatives work. The best data management systems incorporate powerful real-time analytics and do it in a way that doesn't make your database administrators have to worry about extracting, transferring, and loading data.

3. Can it handle all different types of customer-related data?

The best data management systems can incorporate all of the data models, including graph, key-value, document, and column. This gives you the flexibility to process and analyze data in many different ways, which ultimately translates into a much richer experience and relationship with the customer.

4. Is it always on?

This is becoming a very key differentiator between data management systems. Being "always on" means not having a single point of failure and being able to scale without increasing your chances of a failure. Features such as "cross datacenter replication" allow this to happen and allow your company to handle the distributed, quickly growing, always-on nature of cloud applications.

5. Can you use this information in real time?

A data management system should give you the power and opportunity to use data in real time and produce instant insights – that is, to act in the moment of the customer's current interaction, which means analyzing everything you know about that customer right now (from his/her most recent social media interaction to his/her last credit card purchase) to produce an amazing customer experience right when he/she expects it.

If You're Not Leveraging Data in Real Time for Your Business-Critical Applications, You're Not Doing It Right

Today's customers are the same as the applications they're using: highly distributed, hyper-connected, and always on.

To be able to support this kind of information dispersion and scale, and thus gain top-line growth and innovation to be the disruptor and not to be disrupted, enterprises are having to rethink the technology infrastructure on which they're building and deploying business-critical applications and move to a modern platform that puts data at the center of their organization. You can do this by choosing the right data management platform that allows you to leverage big data, legacy information, and real-time operational data.

Now you're ready to take on "real-time" customer experience.

With every touchpoint, every device, every new customer, every interactive moment across company business units, and every piece of data, the potential payoff of providing a good customer experience in real time increases exponentially.

And that's because data points no longer exist in isolation: they communicate with each other, they talk, they interact, they blend and separate and divide, and this real-time process makes them far more than the sum of their parts and creates exponential CX value as a whole.

If you take big data and add to it the ability to use real-time data for real-time insights, you're combining two of the most powerful technology advancements of our age, and you're supplying your company with the ability to turn hesitant, one-time buyers into lifelong customers: that's an investment worth making.

Click here to get started.

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