





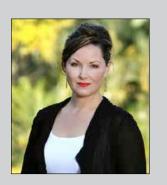
Journey Analytics

An Interview with Lori Bieda, Head of Analytics Centre of Excellence, Bank of Montreal

This interview has been abridged for clarity and conciseness.

Lori Bieda

With a wealth of experience in the analytical field – from her formative years at the database marketing agency Rapp Collins to heading up Client Insight at both CIBC and TD to serving as Executive Lead of Customer Intelligence at SAS – Lori has the rare ability to connect data science to business strategy.



Customer analytics in financial services has come a long way since banks first started building customer information files (CIFs) in the 1990s. CIFs were the primitive forerunner to what we now call "data lakes". Just getting access to data was the main barrier back then: closely rivalled by the suspect quality of the address data.

Today the biggest analytical challenge for banks isn't the limitations of technology: it's embedding data-driven decision-making into their operational DNA. Most banks still limit their analytical muscle to product cross-selling, risk management and fraud detection. But with stiffening competition from FinTech interlopers, eager to capitalize on the mass migration of customers toward web and mobile banking, banks can see the smoke signals. Either they make it easier for customers to do business with them across multiple touchpoints or they face the likelihood of losing their customers to less costly providers.

I recently interviewed Lori Bieda, who heads up the Analytical Centre of Excellence at Bank of Montreal (BMO) on this crucial point. She believes that banks can only succeed if they master the science of journey analytics and that identifying the breakpoints in the customer experience is crucial to winning their loyalty.

- SS
- **Stephen Shaw (SS)**: You've elected to centralize your analytical resources. What made you adopt that model?
- LB
- Lori Bieda (LB): There are three kinds of models analytics teams can have. One is to be a service provider. Another is to be a consultancy where people ask what analytical technique you would recommend to solve a problem. The third is to be a business driver where you're finding opportunity in the data: and we're definitely in that space. Now even though we're a centralized group, we're aligned to the metrics of our business partners and we have dedicated resources to support them. Day in and day out we're sitting alongside our partners, focused on the same objectives as them and helping them succeed.
- SS
- How much of what you do is directed research that is, finding answers to specific questions versus exploratory research where you're just trolling the data looking for insights?
- LB
- We do both. We're always searching for opportunities in data other than what's asked: where you might see something a bit interesting that takes you down a certain path.



- Is market research a separate function? Do you combine attitudinal research with the behavioural analysis that you're doing?
- BMO tends to rely on our behavioural data. But we do use market research in our branding, for share of wallet relative to market and most definitely to assess customer loyalty.
- One of the challenges I've seen with a lot of analytics groups is their ability to explain the strategic significance of their findings to stakeholder groups.
- Yes, I found that too over the years. What we've launched here is an "analytics university" that is targeted at practitioners. Anyone who is interfacing with a business partner receives considerable training on communication skills, on storytelling and on the ability to influence and persuade. You need to know what's really important to focus on. And that's a skill one needs to learn. We've created the "10 Commandments of Analytics" as a guide to how, ideally, we want information displayed. By no means are we perfect; because we produce over 1,500 analyses and reports in a year it is inevitable that some of them may not meet be as effective in communicating their findings as we would have liked. (BR: suggested wording)
- How do you prioritize all of those analytical requests?
- Yes, it's a very real issue. And every time you produce an analysis it leads to more questions. I ran analytics on the analytics. I created a database of all of the analytics being requested of us, looked at who they were coming from and ranked them according to strategic priorities. Then I held quarterly alignment sessions with our business partners where we asked whether these were the right things to be working on. So now we reprioritize continuously. But we also make sure the analyst is trained to ask whether the analytical request makes sense. Then we automated many of our processes so we don't end up having "hands to keyboard" all the time coding.
- You've embraced journey analytics in a big way.

 Is your goal to create the ultimate customer experience?
- The analogy that I often use is that customers are like water.

 They "river through" the enterprise. We like to build dams –

an example would be an "onboarding dam" – expecting customers to flow down that waterway. But then they leak into crevices and other places.

Journey analytics is the discipline of stopping this digital leakage. When you look at how businesses operate today, we're all so siloed. A customer is just trying to get done what they need to get done. And so it stands to reason that analytics should run horizontally.

- Do you have dedicated teams that are focused specifically on journey mapping and analysis?
- I would distinguish journey mapping from journey analytics.
 We conduct journey analytics for a vast number of journeys.
 There are agile teams who leverage the insights we surface by applying user-centered design practices to create the best possible customer experience.

We also have a process center of excellence which has a great grasp of all our processes across the company. Say for example a customer is trying to pay a bill. It involves many different tasks. You can tell through digital data what the customer has set out to do and what they ended up doing, such as the things they tried to do but just couldn't finish. We share that knowledge with our process team and their job is to make those tasks easier for customers.

- Do the process teams have ownership over the actual digital redesign?
- What we've done is form agile teams made up of representatives from different areas. Those teams have dedicated resources with a mandate to solve specific problems.
- How does this all roll up organizationally?
- Agile teams by their very nature defy a traditional hierarchy. You have to organize around the need of the customer.
- SS Where does artificial intelligence (AI) fit into the picture?
- The ability to automate decisions and simplify how we operate is essential. We see all kinds of ways through machine learning to connect the wealth of data we have to the things that customers are looking for. And certainly, in the fraud space, AI is very useful.



- SS Is the new battleground for banks competing on analytics?
 - Yes, in Canada, banking is a mature market and ultimately, we're stealing share from one another. The ability for us to to make very smart risk-return decisions in real time, understanding what customers need, at what credit limits, at what price points and when they need it based on their life stage, is essential. Companies who master that will move to the front of the pack. There is bricks-to-clicks or clicks-to-call optimization. The understanding of those journeys and the orchestration of them is essential. Then there is the customer conversation: being able to connect a customer at the right time and moment to the right advisor. This is still very much an advice-based business. And so we do a ton of work on salesforce optimization, making sure we've got the right staff in place and making sure we understand customer intent, so we can match those up appropriately.
- Could you describe for me your core technologies and how you integrate systems of insight with source data systems?
- LB: With journey data the amount of information is huge. The 100 terabytes of journey data I've accumulated is growing at a clip that eclipses the environments we have available to store all of it. The analogy is the hotel business. The organization builds these hotels and wants to rent out rooms to the different user groups, and I end up taking up all the hotel rooms.

Our thirst for data is unquenchable. There are patterns in the data that are not evident to the naked eye. And you need to have all of the data to tease out those relationships. I'm unlikely to want less data – I want more. Most technology organizations or teams within banks oftentimes want to build versus buy. And where I spend an awful lot of time is doing the cost-benefit analysis. We've made a few key choices where I thought we could partner to be better and different and stronger. We chose partners that could help us get there faster than we thought we could ourselves.

- Do you have concerns at all that in future you might be faced with privacy or permission constraints in the use of all that information?
- Data is the new water. It's more precious than water and everyone wants it. And so, therefore, I think we will be continually vigilant around how we manage it. We have very good data governance practices within our organization and we manage that information in a way that protects our customers.
- Would you say that BMO has transitioned to become a customer first culture?
- I think we've had a customer first culture for a long while.

 And we see journey analytics as an innovation wedge to activate the potential value around each customer.



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