How Avon and Somerset Combines Data and Experience for Better Police Work
by Jonathan Dowey

Any time an organization is going through a digital transformation, you're always going to encounter challenges. After all, you're talking about a major shift to the foundation the organization itself is built upon. But when you're talking about your average, everyday business, that's one thing. When you're talking about a law enforcement agency, that's something else entirely.

Police forces create, control, and share a massive amount of information in just about every direction you can think of. Our officers at the station need to get critical data to those in the field. We've got information coming in and going out to all of our partner agencies, along with other organizations throughout the community. The stakes could also not be higher. That information is used to empower our officers to help keep all of us as safe as possible, 24 hours a day, 7 days a week, 365 days a year.

Digital transformation on this scale is tricky, is what I'm saying.

Avon and Somerset is one of the biggest police forces in the United Kingdom today. We currently look after 1.6 million people across a massive area of terrain that comes in at 4,800 square kilometres. Those square kilometres take us from very urban areas like Bristol, which is a major city in the UK, right through to rural areas that are in the middle of nowhere. We also have a significant tourism element that comes in and fluctuates throughout the seasons. So we've got a big population to look out for, and we have approximately 2,700 officers and 2,300 police staff that do it.

During a typical week in Avon and Somerset, we'll see roughly 17,000 calls for service. That can encompass literally anything. We get 4,500 calls for emergencies and 360 calls for domestic abuse incidents. Maybe another 150 calls for missing people. Now, a single missing person case can take up about 13 hours of an officer's time. This is a massive demand on policing, and we've also seen a huge increase in the volume of missing person calls across the area. That's just one example. There are many more.

Our ability to successfully respond to every one of those calls depends on the data we have available, and that data depends on the technology at the heart of it all. With technology, we always look for ways to become faster, smarter, and more efficient. We have to. Not too long ago, we realized our current system wasn't going to cut it for much longer, so we decided the time was right to embrace technology and perform a digital transformation with open arms.

We knew right off the bat that any solution we chose needed to check a few very important boxes. It needed to be built from the ground up to help save time and capacity. It had to empower all of our officers to be smarter with data in an effort to reduce some of the demand we experienced. Essentially, what we required were tools that would push the organization forward. All of these requirements pointed in one very specific direction. A system that enabled unified intelligence data was no longer a recommendation, but a requirement.

But again, our current system just wasn't built to allow that. So a major change was in order. Thankfully, that change happened to involve Qlik Sense.

Creating the Most Proactive Digital Transformation Possible
We'd previously used predictive analytics before Qlik, but those solutions came up short for a number of reasons. Really, we didn't have the mechanisms in place to deploy those solutions to make them as meaningful as they could possibly be. The problem with buying something off the shelf is that in the end, you get what you get. It's not something that's built for you. "You" are essentially an afterthought. You can get the developer involved, sure, but that's going to cost you. Even if you chose to go that route, you may wind up with a custom solution—but not one that fits your changing needs. It won't grow with you.

An in-house team using Qlik to develop on, on the other hand, puts us in a position to better meet the needs of the users. When changes occur, the team is in the best place to quickly adapt. Originally, we participated in a 12-week proof of concept where we built and operationalized two very distinct applications. Even by the end of that (comparatively) short period of time, people were already relying on it. We hadn't even bought the product yet, and hadn't spent anything, but people already needed it for their day-to-day activities. It had already baked itself into the DNA of our agency, so to speak.

At that moment, we also saw this was only the tip of the iceberg for what we could do over the next several years—in all areas of the business. Based on that, it was quite easy for our chief officer to say, "This is the right way to go."

From a certain perspective, we took a bit of a leap of faith. We had to believe that we could build a bridge that connected us to where we needed to go—even if we weren't quite sure how to do it.

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I think a leap of faith is necessary to make any type of digital transformation. But you also have to act from a place of "high risk, high reward." If what you develop will help create the next evolution of your workplace—if it's going to bend technology around your teams and improve their processes and their workflows in a meaningful way—then the leap is more than worth it.

Innovation for the Future

That initial proof of concept happened in August of 2016, which, in policing, is basically an entire lifetime ago. We're now a full 20 months into our journey. Fast forward to today and my team has put together over 40 different apps for 3,500 users throughout the area. Those stretch from internal management applications aimed at supervisors, to mobile apps and absolutely everything in between those two points. But even after just 20 months, the results have been overwhelming.

Our development team is now able to not only respond to requests in a faster and more efficient way than ever, but they can change apps or even create whole new ones based on specific data and unique needs. We're being smarter with data and are transforming ourselves into a truly data-driven organization.

Qlik being device agnostic is also huge for us, because we have a plethora of different types of systems across our organization. We've got mobile phones, laptops, tablets—you name it. Now, as a developer, I don't need to worry about any of it. Busy officers can use their mobiles to access Qlik and get those insights without needing to come back to the station. They can stay out in their communities and remain as visible as possible, helping them do a better job in a more authentic way.

We recently did a survey of our users and they were all overwhelmingly enthusiastic. An astonishing 81% of people said they think this is a very useful tool. Nearly 70% of the people using the Qlik apps feel like they're better informed in their area of the business. And 56% said Qlik has allowed them or their team to be more effective every day. **The average user reported they were saving about three and a half hours per week**—time they could now spend in areas that matter a great deal.

All of this has also put us in an incredible position to innovate more frequently. Not only are we creating the solutions necessary to tackle today's business challenges, but we can also help get the business team ready for ones they may not have even thought of yet.

Balancing Guts and Data

In terms of active and proactive police work, Qlik has allowed us to combine two essential types of information. You have your data: the cold, hard facts sitting right in front of you. But you also have your professional judgment and your wealth of experience. Both of these are equally important. There are some insights you'll only uncover by going as deep into the data as you possibly can. But then again, there are some points you can only reach the old-fashioned way: through experience.

The best analytics platforms allow you to combine gut feelings with the best data available. @qlik

With Qlik, we've allowed our teams to still use their gut, but back up any decision with data.

We've come a long way over the last 20 months, but we also still have a long way to go. They say that a police officer's work is never done, and that's especially true when you're talking about the technology behind the officer.

The Successful Leap of Faith
Right now, there is a big push for more strategic apps, which we're hard at work creating. Apps that will help officers make better, more informed, and more proactive decisions. So instead of waiting for a crime to happen and then taking steps after the fact to solve it or react to it, we want to make choices today that will prevent the crime from happening in the first place. That's the direction police work around the globe is headed—and it's where we're going now, too.

> **Technology is being used in police agencies every day, often to allow for a more proactive approach to law enforcement than ever before.**

But none of what I'm talking about can be mechanical. It has to be organic, which will always require leaps of faith because you'll always deal with certain unknowns. Honestly, I don't know what our platform will look like in the next year. It could scale out even more, probably in ways I haven't even considered yet. But I'm okay with that. Because so long as we have the trust in the team, and the innovation that they're now in a better position to create, we absolutely have it all.

At the end of the day, I think it's important to remember that a leap of faith doesn't necessarily have to have only two destinations: either a catastrophic failure or a massive success. There's an important middle ground in there, too. It's a necessary action to move on from where you are to finally reach where you want to go.