Predicting delays with AI: How tech helps PostNord deliver for customers

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The postal service is one of the oldest industries in the world. For many years, companies like PostNord have performed a vital role in ensuring letters and parcels are delivered on time.

However, in today's innovation-driven environment, margins are shrinking and competition is growing.

It is no longer feasible to rely solely on delivering post. We must use technology to build new revenue streams and meet the demands of digitally-savvy customers.

Fortunately, in an age where data is a prized commodity, the postal service is in the privileged position of having a wealth of information at its fingertips.

We are already capturing much of this data to improve our business: sensors in our delivery vans help us track distribution, while the Internet of Things allows us to carry out predictive maintenance in our production facilities.

Looking to the future, we are beginning to see how artificial intelligence can improve customer experience.

Bjorn Ekstedt, CIO @PostNordKom on how Business 4.0 is transforming the postal industry. #TCSsummit. pic.twitter.com/dK7x1xzdAq

— TCS Europe (@TCS_Europe) September 15, 2017

AI: giving customers what they want

What a customer says they want and what they actually want are often two very different things.

I recently had an interesting conversation with our head of business development at e-commerce and logistics. He told me he had spoken to some of our customers who wanted to track shipments.

But, having explored the matter in more detail, we decided what they really wanted was to know when their shipments would arrive.

Nothing frustrates a customer more than a delay in receiving an order.

At PostNord we have developed 'Egil', a machine-learning bot that scans all real-time transactional data.

Egil searches for patterns in the data that indicate a delay will happen before it actually occurs. This enables us to take action to ensure the customer is not affected.

This AI solution is still in its infancy but it is already predicting 25% of delays. That hit rate will increase as Egil continues to learn and improve.

We are also using AI to deal with back-office incidents that pose a threat to our production.

Designed by our technology partner, Tata Consultancy Services, 'Ignio' takes over many of the manual tasks involved in incident management. Like Egil, the beauty of Ignio is that it weeds out potential problems before they can take root.

In IT, there are often minor incidents that no one cares about until they start to get serious. Ignio tracks all relevant information and, once a problem emerges, it uses its AI to apply a solution before the problem escalates.

Becoming the postal service of tomorrow

There are a number of ways machine-learning models can benefit our business in the future. Not only can we calculate the risk of a delay, we can also determine the likelihood of a return, when a customer will make their next purchase, and the probability of fraudulent activity.

Technology will help us overcome the significant shrinkage in our mail business. It will drive our transition from being a production-focused organization to one that is information-centric.

It is easy for long-established industries to regard digitalization as a threat. At PostNord we have taken the opposite approach, and we are already starting to reap the rewards.