



BANK SYSTEMS & TECHNOLOGY

SPOTLIGHT

RETAIL DELIVERY

RBC Tracks Branch Traffic One Step at a Time

Royal Bank of Canada automatically monitors branch traffic with computer vision tools

Security cameras have long been a fixture at financial institutions. But aside from grainy clips of bank robberies that occasionally make the evening news, the information contained on those videos rarely sees the light of day.

That won't be the case with information stemming from a new camera system being piloted and used at financial institutions including Royal Bank of Canada and Bank of America. Using technology from Brickstream (Atlanta), these institutions have been able to boost branch efficiency by automatically tracking every move each customer makes.

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Dick Johnson, RBC Financial Group.**

Just as a “click-stream” monitors the movement of an Internet user through a Web site, Brickstream uses overhead cameras and computer vision software to track pedestrian traffic through retail sites, including banks. While the system does not attempt to capture faces or images of individuals, it does maintain a kind of “radar” blip for each person within sight of the cameras.

For retail banks, that information can be used to track customer arrivals at the branch,

and queuing and service times. It can be used to spot customers who get frustrated and leave a line, or customers who, upon seeing a snaking queue, walk right out the door. Also, it can monitor traffic at point-of-sale displays and service counters, providing branch managers with essentially the same kind of information that Web managers can glean from Web-traffic reports.

35% Efficiency Improvement

In an 18-branch pilot program at RBC Financial Group, the technology has already led to significant efficiency gains, says Dick Johnson, senior manager, operations and resource optimization at the Toronto-based financial institution with C\$413 billion in assets. “We’ve seen up to a 35 percent improvement in efficiency, while reducing client irritants and wait times,” he says.

Using Brickstream, Royal Bank of Canada can measure service times and the wait times independently for both its business windows and retail banking windows, and use that information to predict staffing requirements for customer service representatives. “We look closely at service time distribution, for each and every transaction that [employees] are actually delivering in the branch setting,” says Johnson. “It’s very important to know how many clients are coming into our branch and getting into specific queues.”

Based upon trend analysis of the branch traffic, Johnson’s team can identify areas

for improvement in bank policy, along with very specific recommendations for staffing a branch at any given time. “We say, for example, at 9:30 in the morning, for the next 15-minute interval, there should be three or four customer service representatives at the windows to ensure superior service, depending on the policy for that specific branch or for the corporation,” he says. Johnson says the bank also can get real-time data about changing traffic patterns, so that it can quickly make adjustments to service. “We don’t have to wait for complaints to start happening.”

Also, RBC hopes to gain insights about the physical layout of its branches. “Brickstream can help us identify where we put our merchandising, where we put our screens, and how efficient they are,” says Johnson.

At some point, the information might even be used to help set incentives for branch managers. But that would require a more comprehensive rollout. “If you don’t deploy it to 100 percent of your branches at any point in time, then it’s hard to use the salary incentive,” says Johnson. “You want to treat your employees basically the same way.”

But perhaps the biggest benefit is being able to react quickly to changing traffic patterns. “We can look at where our service offering is at any point in time, in real time,” says Johnson. “We don’t have to wait for complaints to start happening. Brickstream processes data about pedestrian traffic in its own data center, although RBC employees manage the camera system infrastructure within the branch. □

—Ivan Schneider