



## TIMING IS EVERYTHING

Telecoms are using data  
to make customers happier—and even save lives

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You receive a coupon from a coffee shop that you pass every day on your drive to work—the one that’s five miles from your house. Wonder how they know who you are? The answer may well be your mobile, Internet, cable and landline service providers.

Telecommunications companies collect more information about customers than almost any other industry: where people relocate to, who they chat with, what they look at online. And telecom executives are eager to draw more intelligence from their great reservoirs of data—theirs is one of the top industries making this an utmost priority, according to a new survey conducted by Oracle in partnership with WSJ. Custom Studios and IPSOS North America Market Research.

Much of telecom’s big data focus today is on location-based services. For example, telecom operators can capture a customer’s location as he or she enters a certain area (called “geo-fencing”) and create targeted promotions. “Sending a service offering to a specific person the moment he or she enters a location is an extremely powerful capability,” says Craig Stires, associate vice president for big data, analytics and software for IDC Asia/Pacific in Singapore.

He points to Singapore’s Singtel and their Group Digital Life (GDL), which have built a program that maps movement data from subscribers and roamers and ties it together with information gleaned from their social media activity. “The telecoms have acquired a number of mobile and social media organizations, pulling in more varied data and a broader understanding of each person,” he says. “This program is still largely focused on providing advertising services to retailers, but holds promise for becoming a customer-centric services platform.”

## **THE PUSH FOR PERSONALIZATION**

In an era of personalization and one-to-one marketing, many telecoms are looking to big data and analytics to become more customer-centric. They can use big data to identify customers who are likely to be interested in new services, using techniques such as:

- analyzing usage of a customer on a prepaid plan and creating an offer to encourage him or her to move to a postpaid contract.
- determining which customers already watch a lot of videos on their phones and targeting them with offers to try new mobile video streaming services.
- suggesting an upgrade to a faster data platform to eligible customers (those with 3G plans who have 4G-enabled phones, for instance).

All this serves the dual purpose of boosting conversion rates and providing greater value to customers. One challenge telecoms face, though, is that they have so much data, it sometimes overwhelms them. According to the survey, about 43 percent of telecom executives feel that data doesn’t reach business managers promptly—the highest percentage of any industry.

Data can sit on web servers, in network traffic logs or in a variety of other places. “Pulling it together and connecting the dots is a massive challenge,” Stires says. “Doing it within any sort of relevant time frame is only being achieved by the best of the best in the industry.”

## **IMPROVING CUSTOMER RETENTION**

Industry data leaders are seeing significant benefits in a number of areas. With the ability to process exponential amounts of data rapidly through cloud-based technology, Hadoop, NoSQL database and in-memory computing, telecoms can create better efficiencies, improve customer retention and boost incremental revenues.

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Take a U.S. telecommunications company that is using big data technology to analyze texts, web surfing and other customer activity. This can alert the company that certain types of mobile devices are underperforming in rural areas. As a result, the telecom can zero in on the cause of the problem quickly and address it before large numbers of customers become irritated and change carriers. In addition to hanging on to customers longer, the telecom saves money another way: In the past, it addressed problems by buying more pricy equipment, because it wasn't sure what the real problem was. Now it can avoid those unnecessary purchases.

In developing countries, telecom infrastructure cannot accommodate the growing demand for phone and web services. In these cases, big data can help as well. “It is being used to design pricing optimization that encourages customers to shift their heaviest mobile data usage to non-peak hours, or to locations that have greater capacity,” Stires explains.

### **BETTERING PEOPLE'S LIVES**

Telecommunication companies are so intertwined in people's lives that their use of big data can extend far beyond improving service and boosting revenues. Across Africa, for example, people are taking part in a massive personality experiment, courtesy of their telecommunications company. The survey, which is the largest big data project in the history of the continent, will quiz people on their mobile phones to identify their personality type, dividing them into categories such as “the individualist” or “the peacemaker.” Survey respondents will receive tailored life advice. But in the long run, the information will be used to create personality maps of Africa, which will help companies reach target audiences, avoid irrelevant marketing and achieve social aims.

Atif Kureishy, a principal with Booz Allen Hamilton MENA, notes that mobility has tremendous penetration in the Middle East—on average, subscribers have 2.7 phones each. The number of mobile/cellular subscriptions rose threefold from 2005 to 2011.

Because telecom providers in the Middle East are semi-private, there is not the same urgency to reduce customer churn and monetize services as in other parts of the world. Instead, Kureishy says, the focus of telecom big data there is largely to fulfill government objectives in improving citizen engagement, happiness and the quality of life. Projects include giving people apps to provide feedback to government ministries that oversee housing, labor, transportation and other public activities.

One example: The UAE's Ministry of Health signed an agreement with telecom operators to deliver mobile health products and services to subscribers. The initiative will provide diabetes patients with education and ways to manage their condition. “Diabetes has become a burden to the healthcare system and an obstacle to citizen happiness,” Kureishy says.

As telecoms in the Middle East start demonstrating success in these first initiatives, he expects they will rapidly expand their use of analytics to new areas—just like telecoms in the rest of the world, who will reimagine their business models and monetize their networks because of more savvy use of their great piles of data.

## **WSJ. Custom Studios**

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