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Entrepreneurs

Making Call Centers Really Hum

Christopher Steiner, 02.14.11, 6:00 PM ET

Few chores stir up more dread than calling a help line. Kelly Conway thinks he can ease the discomfort, for companies and consumers, and he is betting his 11-year-old business on it.

The founder and CEO of ELoyalty, in Lake Forest, Ill., has spent $50 million and six years perfecting complex software that not only can define a specific complaint but also decode a caller's personality. The technology sniffs out 2 million speech patterns that categorize people into one of six personality types; other telltale phrases clue the algorithms into what the specific complaint might be. ELoyalty has analyzed 600 million conversations; its 1,000 servers store 600 terabytes of customer data (the Library of Congress' print stash would require 10 terabytes). Based on all of that intelligence, callers are routed to the service rep best equipped to handle that combination of problem and personality. Result, say clients: up to 20% lower call center operating expenses, thanks to shorter, more productive calls.

"We can derive a great deal from just a few sentences," says Conway, 54. "We are categorizing the human language."

Marquee clients include three of the five largest U.S. property-casualty insurers and four of the six largest health maintenance organizations. (The companies wouldn't comment on the record.) Relative to what big companies shell out for their customer service operations-- each call center seat costs about $50,000 to maintain-- ELoyalty's $175 monthly fee per seat is fairly painless. (The biggest companies, like AT&T, with 100,000 seats, spend billions to placate miffed customers.)

Conway's bet is far riskier: 60% of ELoyalty's $90 million in revenue comes from the more traditional but less scalable business of setting up and advising call centers. Since 2005 Conway, who owns about 7% of ELoyalty's shares (traded on Nasdaq), has plowed most of the company's proceeds into the new technology. The reward could be huge. ELoyalty's software covers only 30,000 of 4 million customer service seats in the U.S. "This is a business that hasn't seen major innovation in decades," says Kelly. "We're changing that."

After business school at USC, Conway put in six years at Telecom Technologies, maker of call switches for customer service centers, and eventually became CEO. There he met Hedges Capers, a psychologist advising the firm's executives on how to keep employees focused. Capers' approach was based on a system developed for NASA in the 1970s to determine which astronauts would jell in a capsule together.

In 2000, as ELoyalty clients defected to larger consultants with more offshore expertise, Conway called Capers. Speech-recognition software had come a long way in the 1990s; Conway wondered if Capers' approach could be boiled down into a computer program. As a test Conway asked Vodafone to record 1,500 service calls, all with the same 12 agents. Capers listened to every call, categorizing the callers' and agents' personality types by words and phrases they used most often. When callers reached a Vodafone agent with a similar personality, their calls averaged just over five minutes and reached a satisfactory resolution 92% of the time. But when customers got an agent utterly different from themselves, calls averaged nearly ten minutes and reached resolution only 47% of the time. Pairing callers with like-wired agents could save companies big money and reduce customer turnover.

The tricky part: automating the pairing process. The skill needed to meld speech recognition software with algorithms that peg a caller's personality, it turned out, are similar to those used by some sophisticated Wall Street firms to pick stocks. Competing with The Street's prestige and pay was hard--then came the crash of

2008. In the last three years Conway has hired 60 algorithm builders. No mere programmers, these sharp minds hunt for subtle relationships between phrases and their intended meanings. Conway gives IQ tests to applicants who get past ELoyalty's phone screens--a quarter of new hires are within the top 1% of IQs nationally.

ELoyalty's algorithms listen for key words, such as "cancel" and "disappointed," indicating a caller might want to close his account. If a customer has called in the past, call center computers flag his personality for agents and assess the chance he may be calling to cancel his account; the computers also give hints for how to deal with him. The software even synchs with company accounts showing how valuable the caller might be. Credit card customers who carry large balances and pay on time get higher priority than infrequent users.

Conway also aims to thwart fraudsters probing for personal information. Phishers now account for one out of 3,000 calls to credit card companies, according to client data. (In Eastern Europe, Ireland and Africa, there are entire call centers devoted to stealing information and identities.) In these instances the call is traced and the caller's voice recorded and stored as a known fraudster. The next time he calls any ELoyalty client, he'll be instantly fingered as a crook.

Conway smells another big market: scanning e-mails to assess client relationships and employee weaknesses. E-mail correspondence between two large companies can comprise 50 employees on each side, forming a spiderweb matrix of communication. Conway says his software, in testing now, will take a quick temperature of that network and spot strains before they blow up. Privacy advocates needn't worry, he says: The program only ferrets out subjects relevant to business, and e-mailers remain anonymous. "E-mails are very good proxies for the strength of a client relationship," says Conway. "I know we're onto something here."

The Six Kinds of Customer

EMOTIONS-DRIVEN (30% of the population)
They forge relationships with agents before diving directly into the problem.

THOUGHTS-DRIVEN (25%)
They want facts and analysis and don't waste time on pleasantries.

REACTIONS-DRIVEN (20%)
They either love something or hate it. "This product is so cool," they might say.

OPINIONS-DRIVEN (10%)
Their language is full of imperatives, and their minds are resolute.

REFLECTIONS-DRIVEN (10%)
These introverts live in their own worlds, prefer silence to banter and often skip personal pronouns in speech.

ACTIONS-DRIVEN (5%)
This group craves movement and progress. Think Donald Trump.

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