What technologies will influence the future of utility customer experience?

An Ask E Source answer
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Q:What technologies will influence the future of utility customer experience?

A:Although a wide variety of technologies will affect the way utilities do business, artificial intelligence (AI) will likely be the most important. And voice analytics, which will largely be built on AI-enabled platforms, will also affect utility customer service.

Artificial intelligence

AI is computer technology that's used to sense, learn, reason, and act in ways inspired by the human nervous system. AI can interact with an environment (virtual or physical) with appropriate responsiveness and foresight. It serves as the underpinning for a wide variety of technological advances, including:

- Autonomous vehicles and aerial drones
- Robotics that interact with physical spaces and objects
- Voice analytics and speech processing
- Computer vision

We foresee some potential use cases for these technologies that will become applicable for utilities over the next 10 years.

Chatbots as virtual agents. For utilities, chatbots will be most useful with extremely replicable, high-volume questions. They will likely become the front line in responding to requests for outage information, and they will begin online and spread across other channels. Chatbots with basic offerings will likely start to be widely adopted by around 2019 in service industries like banking and telecommunications. Dutch airline KLM already has a chatbot for standard inquiries like "I need a boarding pass," and a human steps in when it can't handle an inquiry. The customer service representative gets help in the background by being connected to company's customer relationship

management system and presented with relevant information about the customer. For more information see Facebook Messenger Launches Its First Airline Bot and KLM Creates Chatbot on Facebook Messenger and WeChat.

Engines of predictive intent. AI can analyze customer patterns of behavior to predict which products, services, or transactions that a distinct customer group is most likely to be interested in next. Several products offer the AI sophistication to enable prediction and personalization, including Sailthru, Oracle Responsys, and IBM Watson Marketing Automation. Currently, these vendors mostly do digital marketing for e-commerce websites. We expect service providers like banks and utilities to be slower to adopt this type of solution but will increasingly do so as costs decrease, performance becomes stronger, and customer expectations rise.

Proactive collections protection. Using huge datasets of past customer payment patterns, AI software can identify customers who are at risk of not paying their bills. Armed with this information, utilities can take proactive measures to deflect customers from entering the collections process.

Customer data quality maintenance. AI software can be taught to seek out and fix inconsistencies in customer data. For example, constantly and automatically filtering data and delineating between inactive and active accounts in data used for reporting and analysis could be beneficial.

Voice analytics

Voice analytics relies on speech-processing engines that attempt to identify characteristics in the human voice to determine key information about the speaker—such as what they are saying, what they are feeling, and who they are. For example, this technology could help improve the performance of contact center agents. Emotion-recognition technology can be used to evaluate how emotions are changing over the course of a call and proactively identify which calls are likely to escalate. This would enable agents to take proactive measures while on the call to contain the customer and prevent the escalation, or at least predict the volume of escalated calls in advance.

Voice analytics could also shorten authentication time. It can be time-consuming for a customer to authenticate with an interactive voice response system (IVR) or with an agent. Speaker validation instead confirms the caller’s identity by matching their voice’s key characteristics with a voiceprint on file. Once customers have enrolled with their voiceprint, authentication time could be cut significantly.

Finally, voice analytics could be used to create additional containment in the IVR. Advanced natural-language processing can give an effective and affective response to more-diverse voice commands based on emotion. For example, a customer that expresses frustration with an IVR could be moved directly to an agent, or the IVR could change the way it prompts its messages.
