

Teaching Case
**Who Renews? Who Leaves? Identifying Customer Churn
in a Telecom Company Using Big Data Techniques**

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ABSTRACT

Within the context of the telecom industry, this teaching case is an active learning analytics exercise to help students build hands-on expertise on how to utilize Big Data to solve a business problem. Particularly, the case utilizes an analytics method to help develop a customer retention strategy to mitigate against an increasing customer churn problem in a telecom company. Traditionally, the forecast of customer churn uses various demographic and cell phone usage data. Big Data techniques permit a much finer granularity in the prediction of churn by analyzing specific activities a customer undertakes before churning. The authors help students to understand how data from customer interactions with the company through multiple channels can be combined to create a “session.” Subsequently, the authors demonstrate the use of effective visualization to identify the most relevant paths to customer churn. The Teradata Aster Big Data platform is used in developing this case study.

Keywords: Big data, Data analytics, Telecommunication, Active learning, Business intelligence, User satisfaction