Adaptive websites use machine-learning techniques to search for common patterns of behaviour, which might indicate when adaptations should be performed. One kind of behaviour data typically used is the trail of page browsing and product purchasing.

As part of the CS6999 Adaptive Web course, we applied three machine-learning techniques (Naive Bayes classifier, decision tree and association rules) to browsing and purchase data from the KDD-CUP 2000 challenge to explore how interesting patterns might be discovered. We’ll describe these techniques, how they were applied, and what we discovered in the process.