Jeremy Hirschler – Lab 1

Using the information from one of the case studies in this module and your imagination. reconstruct the Context, Need, Vision, and Outcome that you think generated the result discussed in the case study. Think about what conversations the data scientists, stakeholders, and engineers had. Write up a short report on your reconstructed CoNVO.

Target Case Study:

Context – Customers who shop at Target buy products that will improve or enrich their lives. Target should stock products and aim to sell specific products to customers based on their demographics, in this case, pregnant women.

Need – How can we identify customers who are more likely to buy pregnancy-related items based on their existing shopping habits? Can we get these women, who are likely to be pregnant based on particular items they buy, to spend more by sending them coupons for items they might be looking to buy anyway?

Vision – We will assess customers shopping habits by checking if they buy more pregnancy-related items than usual based on their pre-existing shopping history. We can determine a good possibly that a women may be pregnant if she buys more of these items in a short period of time. We can create a prediction model to determine the chance a woman may be pregnant and send her coupons for pregnancy-related items. Success may be: we accurately predicted a woman's pregnancy, and that woman was mailed coupons.

Outcome – Communicate whether the women who received these coupons ended up buying those items, with the coupons they received. If successful, we can extend this program – sending customers coupons who may fit a certain demographic – in order to increase customer spending in Target.

Based on the Target Case Study, we know that the organization collected data on its customers, giving each one a "Guest Id." They then created a "pregnancy prediction score" based on which particular products a customer bought. For example, a customer who buys a book on how to baby-proof a house, diapers, and kid toys would probably be more likely to have a higher score than a customer who buys protein powder, a fishing rod, and an electric shaver. In this way, Target was able to identify customers in order to send them targeted coupons.

People tend to form habits when shopping, and so customers who bought the former set of items, when they may have never bought them before, would be good candidates to send these maternity coupons. The organization may also be able to determine (not with hard data) if they were successful in their predictions if they saw those same customers in the store with a newborn, after having received the maternity coupons.

They likely measured their success in whether these coupons got used by those customers, and upon viewing the organization's success in predicting a woman's pregnancy, they could then apply the same predictions for other demographics.