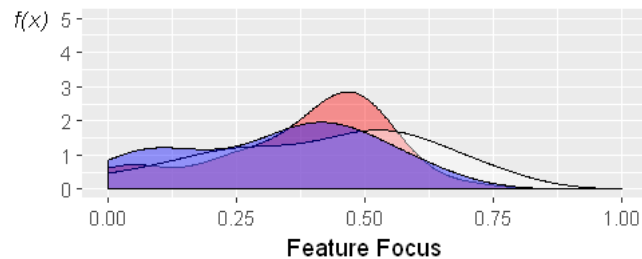
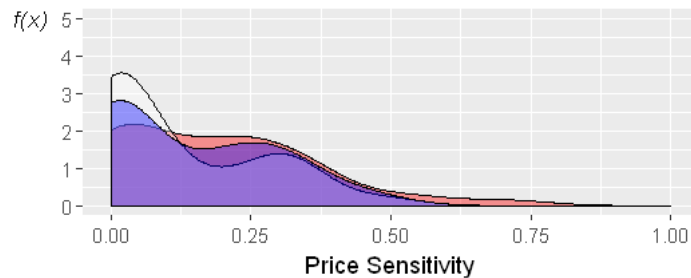
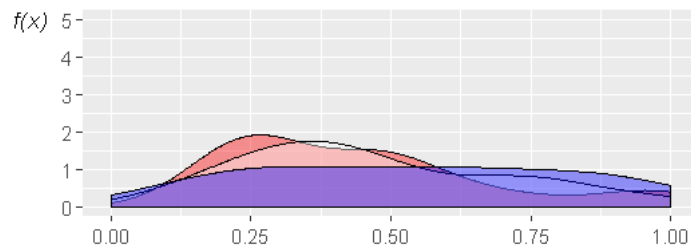




Bayesian Modeling

School of Information Studies
Syracuse University

Bayesian State of Mind



Apple Dell HP



Binomial Distribution

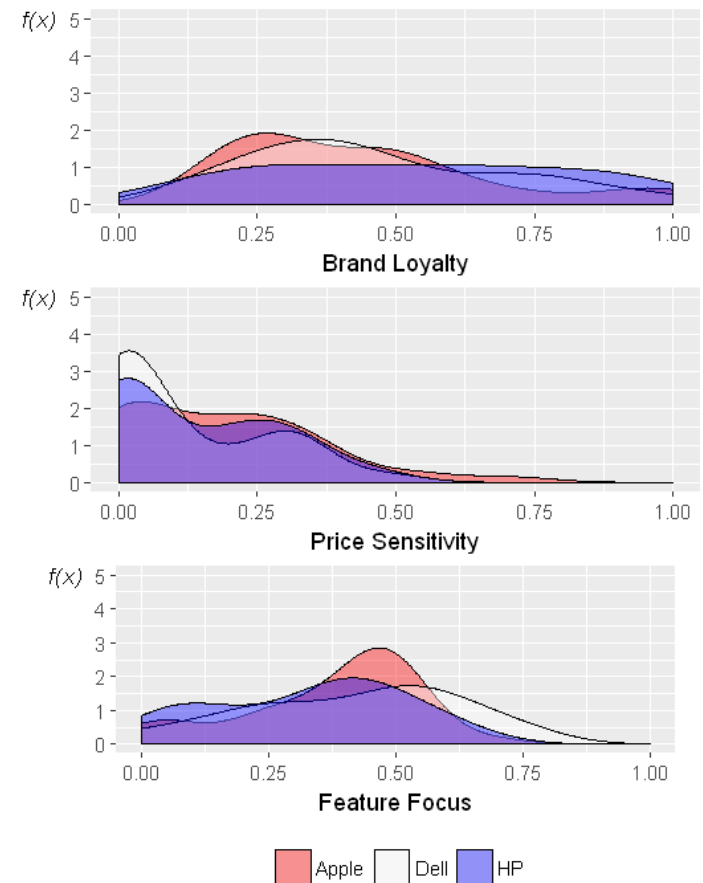
$$P(X = k) = \binom{N}{k} p^k (1 - p)^{N-k}$$

- Discrete distribution
- Special case for $N = 1$

Source: Adapted from Stanton (2017)

Parent and Child Relationships

- Parent variable
- Child variables
- Stochastic variables
- Deterministic variables



Modeling Approach

- Best random variable for data?
- What do we need to generate the variable?
- Do we know the parameter?
- What distribution represents the parameter?
- Can we estimate this parameter?

