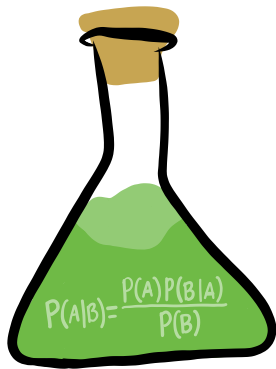


Wessel Bruinsma

21 October 2018

A BAYESIAN TRUTH SERUM



Wessel Bruinsma

21 October 2018

Ask question with response in \mathcal{X} .

Do you like this painting? $\mathcal{X} = \{\text{yes, no}\}$.

Ask question with response in \mathcal{X} .

Do you like this painting? $\mathcal{X} = \{\text{yes}, \text{no}\}$.

$$\text{🧪} : \mathcal{X} \rightarrow \mathbb{R},$$

Ask question with response in \mathcal{X} .

Do you like this painting? $\mathcal{X} = \{\text{yes}, \text{no}\}$.

$$\text{🧪} : \mathcal{X} \rightarrow \mathbb{R},$$

$$\text{🧪}(\text{truthful response}) > \text{🧪}(\text{untruthful response}).$$

GM + prior/posterior + principle

Formula

assumptions + proof

Recap slide. [link to slides](#) [link to writeup](#) Prelec, D. (2004). A Bayesian Truth Serum for Subjective Data. *Science*, 306(5695), 462–466.