Why study stat. learning?

↳ Business : use data collected from daily ops. to ↑ efficiency, predict val., or explore relationships

Δ Developing accurate model to pred. sales from 3 media budgets → pg. 15

– When trying to model 1 var. w/ p other vars., we assume a relationship btwn. target (Y) & features ($X = (X_1, ..., X_p)$)

↳ $Y = f(X) + \epsilon$ ↳ Random error → ind. from X & $\mu = 0$

⟶ Arbitrary function → what info X provides abt. Y