



THE UNIVERSITY OF TEXAS AT AUSTIN
McCOMBS SCHOOL OF BUSINESS

Logistic regression lab

Lecture 19

STA 371G

No Learning Catalytics questions yet....



What else can we use logistic regression for?

- **Finance:** Predicting which customers are most likely to default on a loan
- **Advertising:** Predicting when a customer will respond positively to an advertising campaign
- **Marketing:** Predicting when a customer will purchase a product or sign up for a service

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Case study: An application of logistic regression

- Imagine you are running a web site and you are considering whether to present an offer for a magazine subscription to users.
- Presenting the offer when the customer is not interested will annoy them; not presenting the offer means you forgo a possible sale.
- How do you decide which customers to present the offer to?

Building the data set

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- An email clickthrough tracked whether each customer subscribed to the magazine or not.
- The company matched the data collected when the customer made a previous purchase with third-party data (which can be purchased from data sources such as the credit scoring agencies).

The activity

Your goal is to build a logistic regression model to help the company make a prediction about whether to show the offer to a customer on the web site, based on characteristic of that customer:

- Demographics (income, gender, marital status, etc.)
- Previous history with the company (previously purchased a parenting magazine; previously purchased a children's magazine)