



Mu Sigma

Predicting Online Customer Intent using ML

Thursday Learning Hour – Maaheen Jaiswal

Do The Math

Chicago, IL

Bangalore, India

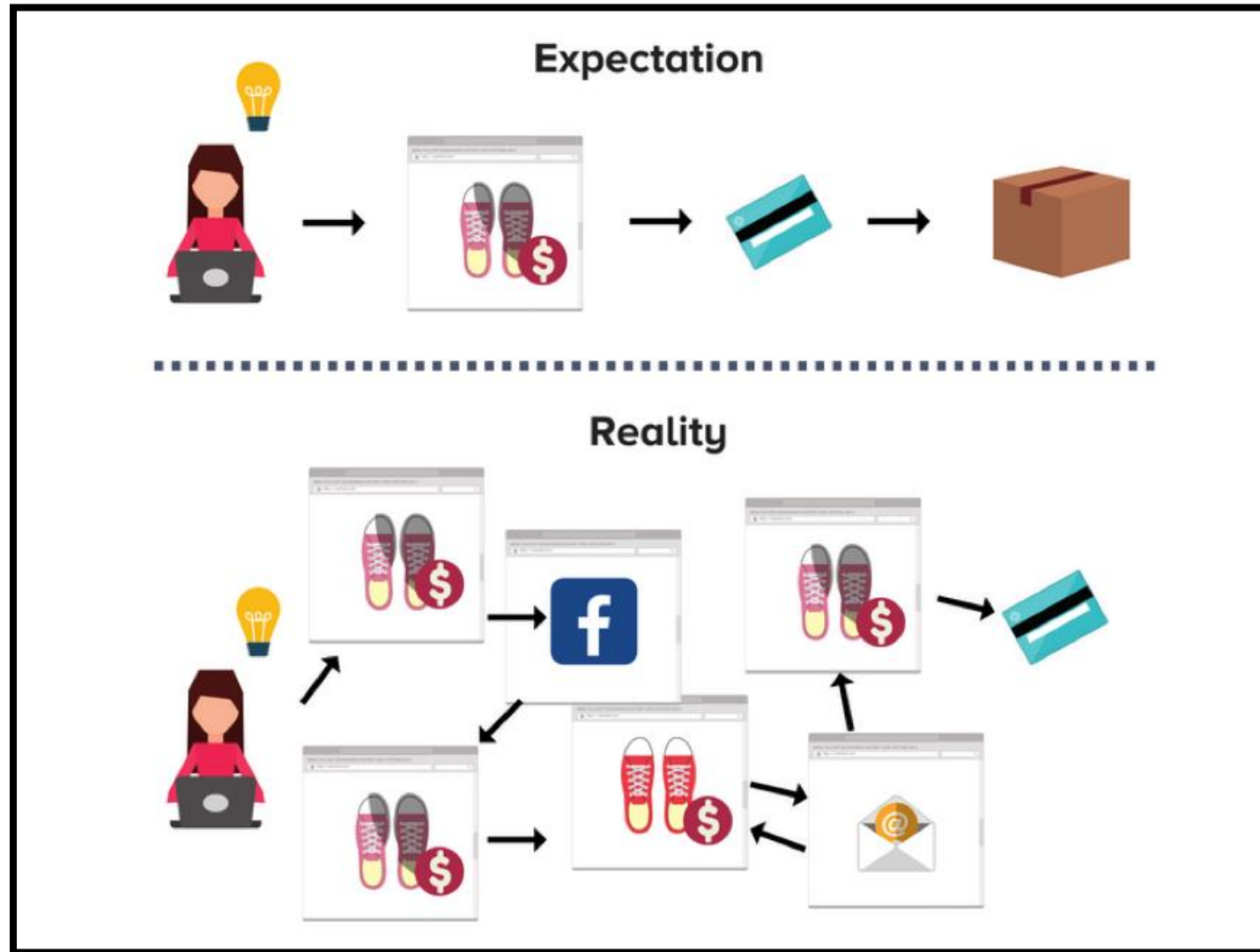
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Topics you will learn in today's session:

- 4 Important Jargons – Web Journey, Conversions, Creatives & Digital Campaigns
- Predicting User Intent using Machine Learning
- Types of personalization ML models
- A/B Testing Overview
- Performance Metrics

Web Journeys



What are Creatives?





This Colgate ad went viral!
But why?

Online Conversions

Digital Campaigns

Why personalization is important?

Q) Which of the below companies is the least likely to use personalisation for improving the user experience on their websites?

- Amazon
- Netflix
- Mercedes Benz
- Swiggy

Personalised vs Non-Personalised Page Example

Cric

Laptop

TV

Generic Picture

Generic Text



Get a free mobile cover with every
mobile purchase

But what do we want to personalize?

User Intention

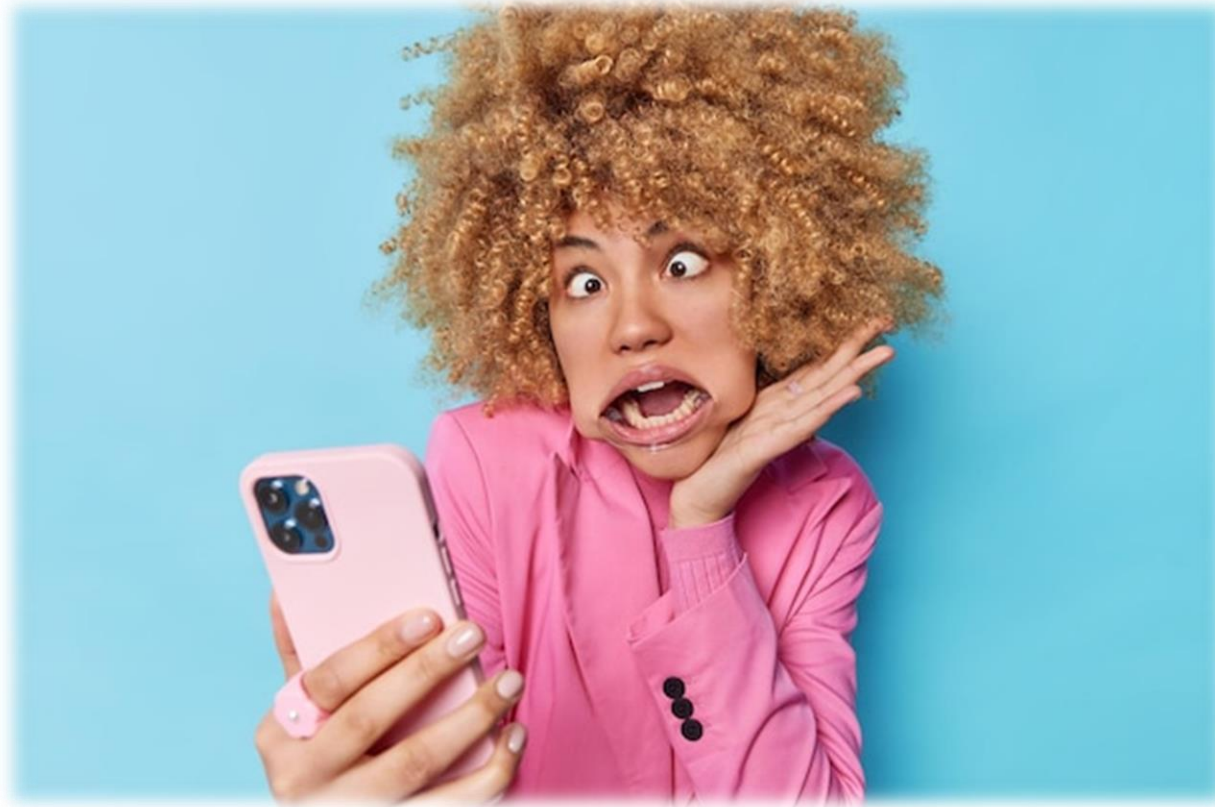
Is it a good idea to predict the creative for each user?

What features do you think are important for personalizing?

Static Features Vs Dynamic Features

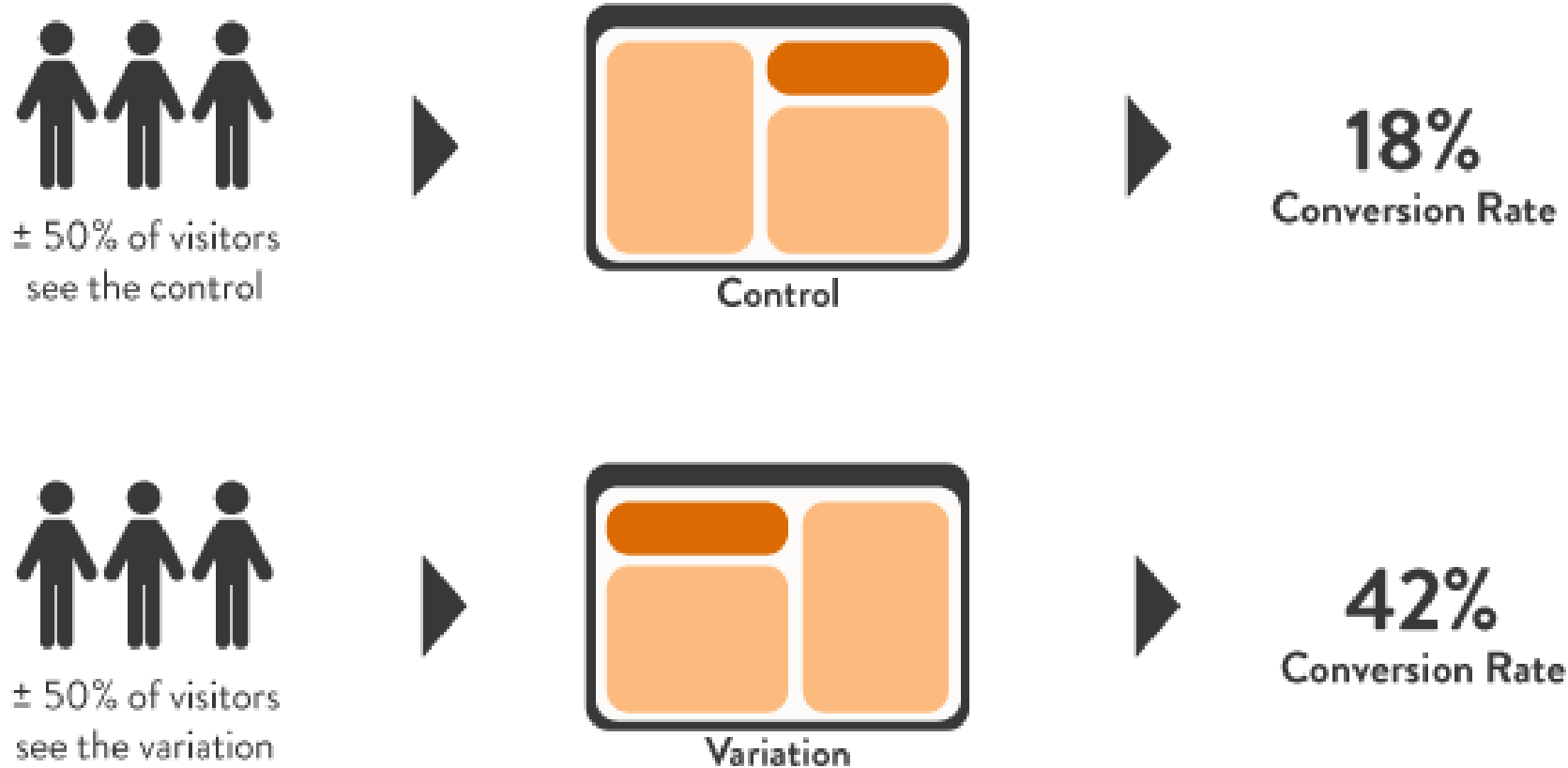
What type of feature is more useful?

Cold Start Problem



New user, **what to do?**

A/B Testing Overview



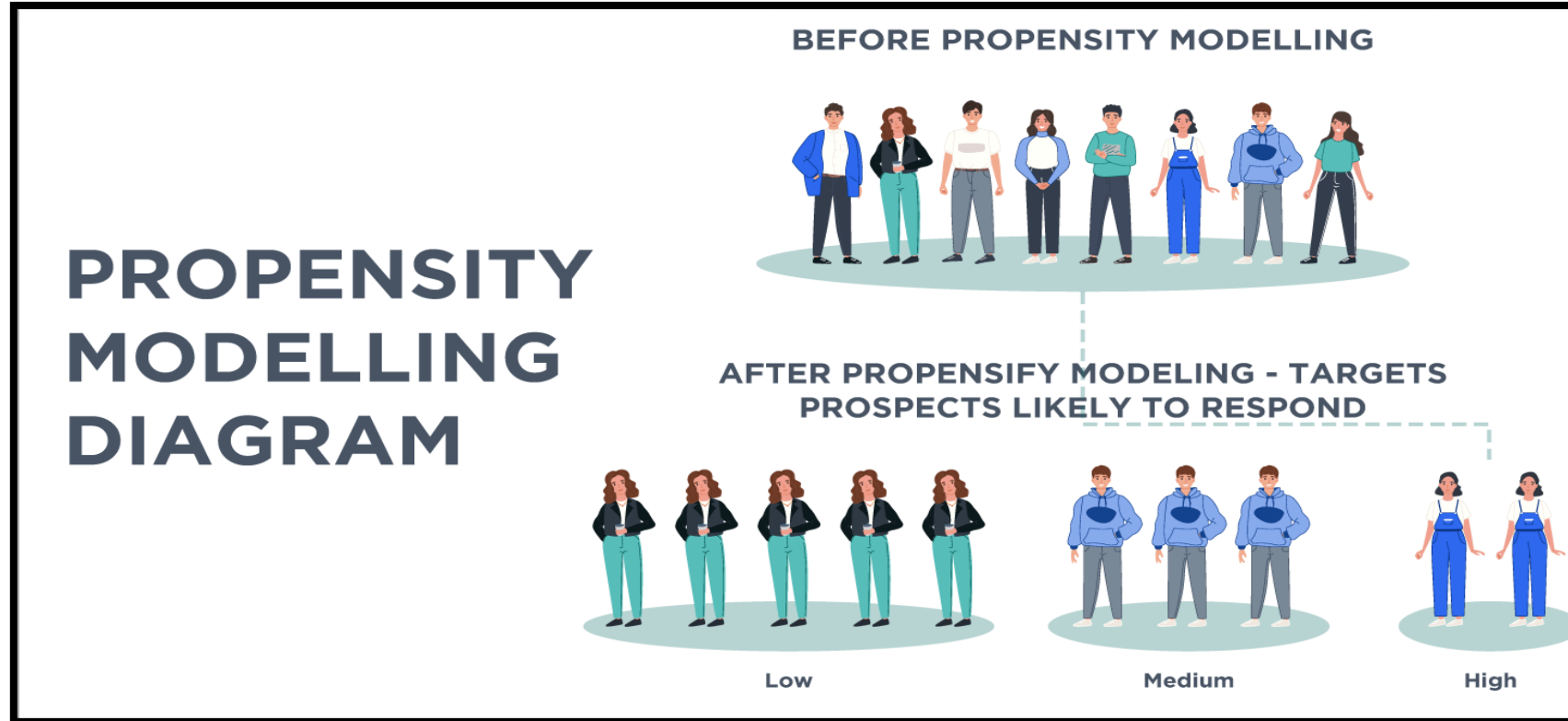
Performance Metrics

Types of ML models for Personalization

Types of Intent Detection ML models

- **Next-Item Recommendation:** Models intent for the next customer action
- **Market Basket Analysis:** Models intent of customer for buying an additional product
- **Propensity Modelling:** Models behavioral intent on the e-commerce site
- **Customer Lifetime Value:** Models the customer's intent for time, how long he will stay with the e-commerce site

Propensity ML Model



Thank You for bearing with me!!

References

- <https://www.mecs-press.org/ijieeb/ijieeb-v12-n6/IJIEEB-V12-N6-1.pdf>
- <https://www.scnsoft.com/blog/website-personalization>
- <https://www.metageni.com/predict-online-customer-intent-with-machine-learning/>
- <https://www.altexsoft.com/blog/propensity-model/>
- <https://www.expressanalytics.com/blog/propensity-modeling-to-predict-customer-behavior-using-machine-learning/>