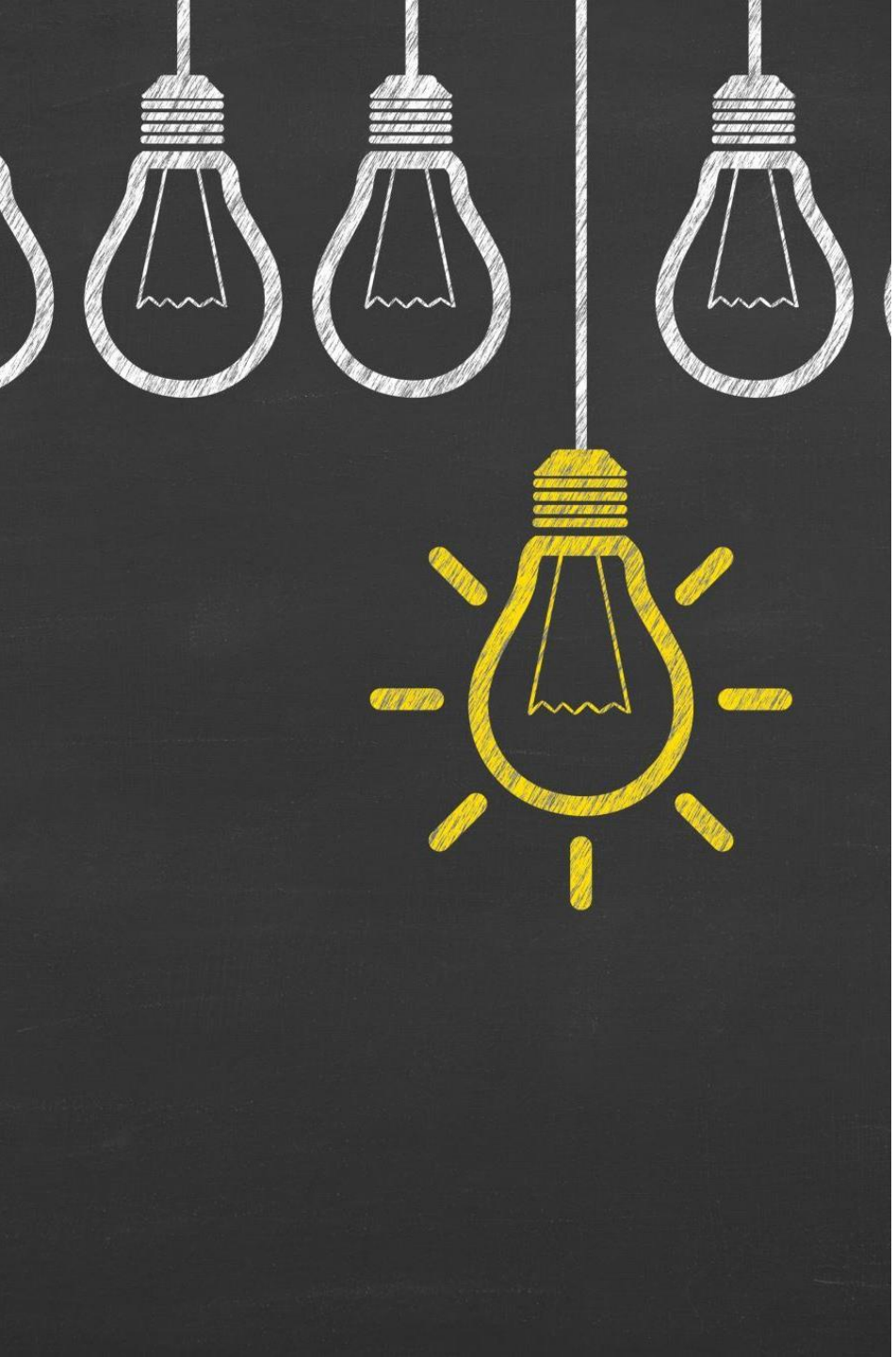
Unleashing the Power of Analytics for App Product Success

Seminary 6

Content

- **Brief Overview of the Importance of Analytics in the Digital Age**
- **Setting Up Analytics for Your App**
  - Introduction to Google Analytics and Other Analytics Platforms
- **Leveraging Analytics for App Growth**
  - **User Behavior Analytics**
    - Funnel Analysis
    - User Journey Mapping
    - Cohort Analysis
  - **Predictive Analytics**
  - **A/B Testing and Experimentation**
- **Next Milestone**



DATA DRIVEN INNOVATION

- emerging **resource** for organizations, enabling **value creation** and the development of new industries, products, and processes
- use of data to create value and r**each new horizons** is called **data-driven innovation**
- **Three practices:**

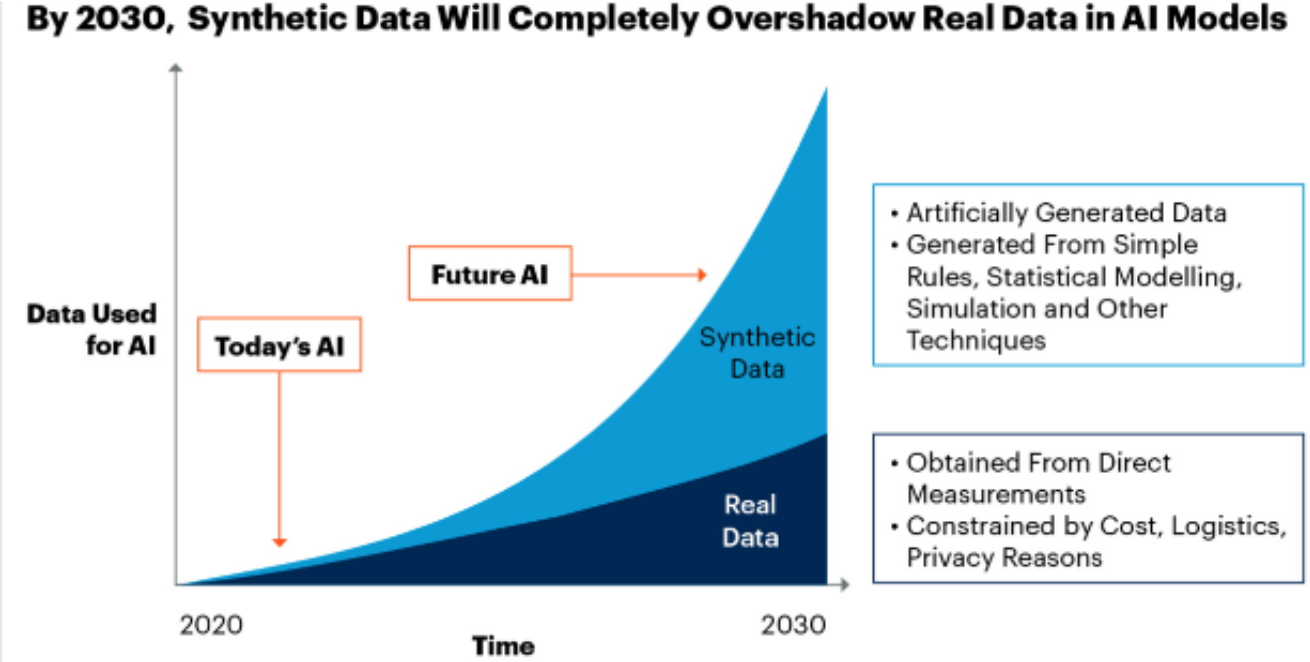
Explaining analysis & insights

Extract business insights:

- Why did sales decrease?
- Where the users mostly stops?
- Best options for user acquisition?

Create synthetic data:

- Test different models with a lot of data
- Automatic data imputation



Source https://ww3.math.ucla.edu/announcements_ugrad/ucla-synthetic-data-workshop/

Analytics Platforms

- **Microsoft Power BI**: Best for data visualization
- **Tableau**: Best for business intelligence (BI)
- **Qlik Sense**: Best for machine learning (ML)
- **Looker**: Best for data exploration
- **Klipfolio**: Best for instant metrics
- **Zoho Analytics**: Best for robust insights
- **Domo**: Best for streamlining workflows
- **Sisense**: Best for integrated analytics solutions
- **Google Analytics**: Best for web traffic insight
- **SAP Analytics Cloud**: Best for enterprise performance management

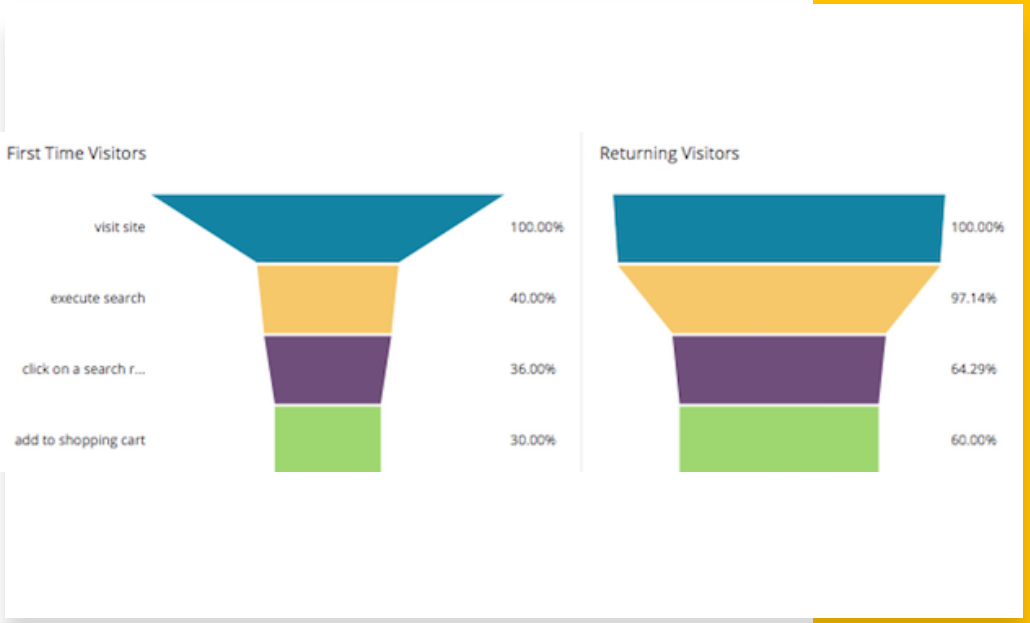
Source https://www.forbes.com/advisor/business/software/best-data-analytics-tools/

User Behavior Analytics

- User behavior analytics (UBA) is the tracking, collecting and assessing of user data and activities using monitoring systems
- user is just one category of entities with observable behaviors

Funnel Analysis

- understand the **flow of users** through the website
- shows you where your **users are dropping off**
  - from visiting to adding an item to the shopping cart



User Journey Mapping

- understanding the impact of every interaction a customer has with your business
- can include analysis of:
  - customer needs
  - emotional highs and lows
  - key metrics per step in the journey
  - customer satisfaction scores, customer effort scores, and other survey results

User Journey Mapping - Example

Printing business

- The journey:
  - A customer has an issue, call customer center, agent arrive, repair is made
- Issue:
  - When agent arrive, the customer is not present, they need a reschedule
- Analysis:
  - Using the Net Promoter Score (NPS) the company observe the score drops when reschedule
  - Using NLP, there are negative sentiment expressed
- Resulting action
  - Offering customers a self-service booking system that they can access via their mobile on an app or through the website gives the customers more control

Event Tracking for In-App Actions

- In-app events are **tracked actions** that users perform in an app
- used as a tool **to optimize** the user experience:
  - increase stickiness within their app,
  - measure performance
  - find trends in user behavior
  - which users are most valuable and stick around for the longest
  - create impactful audience segments
- Examples:
  - registration, add-to-cart, purchases, opens
  - level achievements, tutorial completion, user invites, and social shares

Cohort Analysis

- Comparing how different groups of customers act over time
- A cohort is a specific group of people with a shared characteristic or criteria:
  - First product bought
  - Channel they came
  - Demographics: age, location, …
- Used to analyze:
  - buying patterns, conversion trends, product popularity
  - Compare add campaigns with different attributes

Cohort Analysis - Example

	0	1	2	3	4	5	6	7	8	9	10	11	12
Jan-20	256	106	79	60	30	22	17	25	5	2	2	1	3
Feb-20	165	47	35	26	13	10	18	7	4	3	2	0	
Mar-20	146	53	40	30	15	23	9	5	1	0	0		
Apr-20	121	18	14	10	19	7	5	1	3	2			
May-20	78	30	22	24	13	10	7	1	0				
Jun-20	72	17	28	12	6	5	3	1					
Jul-20	86	24	18	14	10	5	4						
Aug-20	98	18	14	10	5	4							
Sep-20	112	19	15	11	5								
Oct-20	146	34	26	19									
Nov-20	198	53	39										
Dec-20	204	72											
Jan-21	223												

- **eCommerce store**
- First column is the number of customers that made a first-time purchase **each month**
- The following columns show how many customers also made **another purchase**, and in which month
- Observation:
  - a big drop in numbers for most months between columns **three and four** (sudden change in shading between those columns)

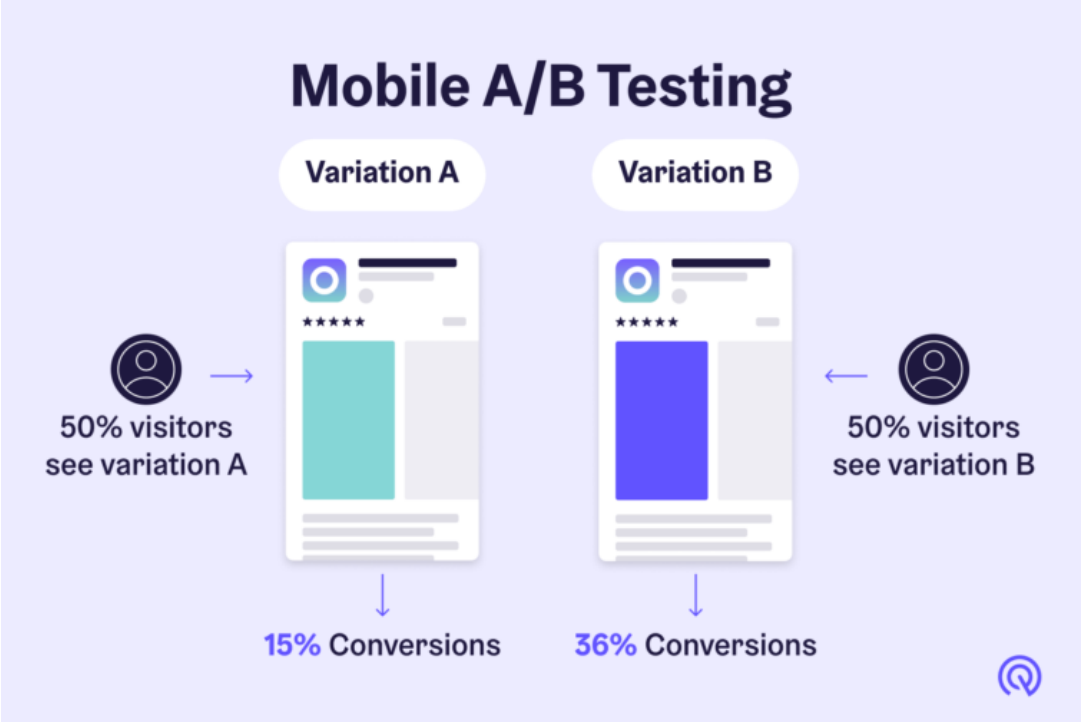
Source: https://www.adverity.com/blog/is-mastering-cohort-analysis-worth-the-challenge

Predictive Analytics

- The process of using data to forecast future outcomes
- Steps:
  - Define the problem
  - Acquire and organize data
  - Pre-process data: remove anomalies, missing data
  - Develop predictive models: ML, regression models, decision trees, NN
  - Validate and deploy: make available to stakeholders
- Ex: GPT Analytics

A/B Testing and Experimentation

- A/B testing (also known as split testing or bucket testing) is a methodology for comparing **two versions** of a webpage or app against each other to determine which one **performs better**.
- You keep your current version of the app store listing and create another variation **to test one specific aspect**



Source: https://appradar.com/academy/app-store-listing-a-b-testing

A/B Testing - Steps

Research.

What is missing in your app? Keep an eye on the competitors.

Hypothesis

"If I change the app icon, we'll get more downloads"

Create your variations

Create the new icon, design new search button

Running the experiment

Never run the experiments before 7 days

Analysis and implement

Collect data: traffic, conversions, engagement, rate, retention rate, etc.

… and make decisions

Milestone 6 -week 12-

- One page PDF to design an **A/B testing** process
  - Research
  - Hypothesis
  - Versions
  - Metrics
  - How do you deploy the 2 versions in parallel?

References:

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