Slide 1

DSO528

Blended Data Business Analytics for Efficient Decisions

Introduction

USC Marshall
School of Business

Feng Chen

Slide 2

Which industry do you have experience in?

Nobody has responded yet.

Hang tight! Responses are coming in.

Start the presentation to see live content. For screen share software, share the entire screen. Get help at **polev.com/app**

Slide 3

DSO528

Learning Objectives

➢ Overview of AI and business analytics

➢ Recognize overall course structure and requirement

➢ Use JMP and Google Colab to open a csv data set
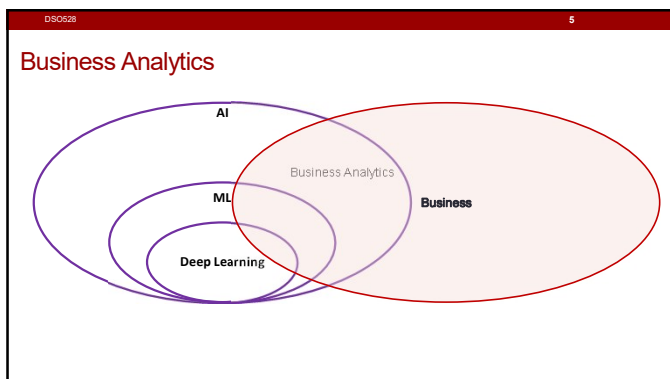

Slide 4

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AI

➢ Creates technology that can think and make decisions like humans.

➢ Be able to learn by processing data, recognizing patterns, and solving problems.

➢ The core objective of AI is to enable machines to perform tasks independently, without requiring explicit instructions from humans.

AI in business

Use of AI tools such as machine learning, natural language processing, and computer vision to

➢ Enable more effective decision making

➢ Improve customer experience

➢ AI-driven solutions contribute to the improvement of various business practices, including sales, marketing, IT, and operations, by automating processes and optimizing performance.
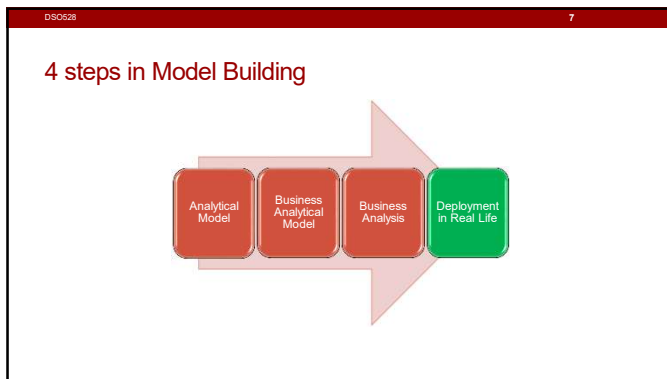

Slide 5

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Business Analytics

AI

Business Analytics

ML

Business

Deep Learning

Slide 6

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HAI – Human Enabling AI

Workers

AI Tools

Concept of Co-Pilot

Slide 7

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4 steps in Model Building

Analytical Model → Business Analytical Model → Business Analysis → Deployment in Real Life

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Slide 8

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Taxonomy of Machine Learning methodologies — N-iX
Source: Jha, V. An overview of machine learning techniques.

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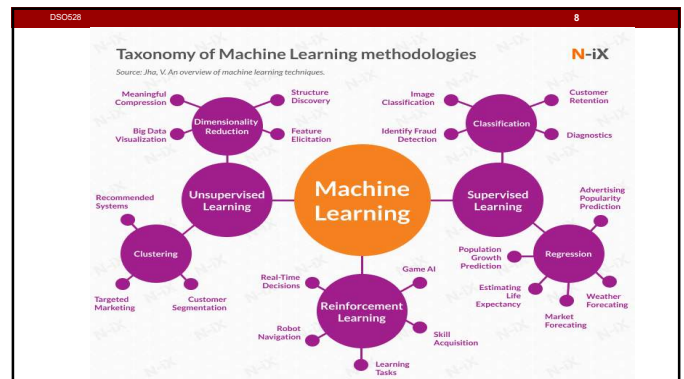
Slide 9

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Example: Netflix

Gradient Boosted Decision Tree Neural Network

What is an A/B Test?

https://research.netflix.com/research-area/recommendations
https://research.netflix.com/research-area/machine-learning
https://netflixtechblog.com/what-is-an-a-b-test-b08cc1657982

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Slide 10

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Your turn

➢ Open the Google slide using your USC credential.
https://docs.google.com/presentation/d/1VriIULTemkXGHJiVCuF5pEJivnhuio6e7CWx8jpHSCE/edit?usp=sharing

➢ Join a team (Please form a team with members from different majors.)

➢ Pick a slide for your team and answer all questions in the instruction slide.

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Slide 11

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Topics

➢ Basic EDA (exploratory data analysis)

➢ Classification

▪ Decision Tree

▪ Logistic Regression

➢ Clustering (k-means)

➢ Neural Network

➢ Brief introduction of other models such as bootstrap forest and nearest neighbors

➢ Overview of data warehousing

➢ Social impacts and future of AI

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Slide 12

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Course structure and administrative details

Let's check the syllabus

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About Brightspace

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