Course Code: W7107GW

Course Title: What is Conversational AI?

Description:

In recent years there has been rapid development of AI systems aimed at communicating with humans. Advances in machine learning mean that chatbots and virtual agents are becoming ever-more capable of understanding, assisting, and entertaining us. Conversational AI is the field that encompasses these technologies, including their design, implementation, and applications. This course introduces learners to Conversational AI and its associated technologies, examining its historical development, its contemporary forms and applications, and other key considerations in its use, all with a particular emasis on business. The course will focus on intuitions, examples, and concepts surrounding Conversational AI, as opposed to its technical implementation—no coding is required.

Objectives:

• Defining Conversational AI • A Brief History of Conversational AI • Conversational Solutions in Business • Building a Conversational Agent • Conversational Solution Design • Conversational AI Laws and Ethics • What's Next for Conversational AI?

Prerequisites:

No prerequisite knowledge is assumed, however a basic understanding of artificial intelligence and machine learning (i.e. what they are, what they do) will be beneficial.

Duration:

4.8 Hrs

Topics:

Defining Conversational AI • Identify elements of human conversation • Examine the functions that artificial intelligence can play when interacting with humans • Consider how what constitutes "artificial intelligence" may change over time A Brief History of Conversational AI • Contemplate the importance of Conversational AI to the history and ongoing development of artificial intelligence • Characterize the role of chatbots in the history of Conversational AI, and how they differ from other modern variants of the technology • Identifying key supporting technologies that enabled the development of Conversational AI Conversational Solutions in Business • Examine Conversational AI in direct customer-assistance use cases • Examine Conversational AI as an agent-assist tool • Identify additional sources of business value Building a Conversational Agent • Consider challenges and properties of human natural language relevant in building Conversational AI • Define dialogue frameworks and the GUS architecture • Analyze information retrieval approaches as they apply to building Conversational AI Conversational Solution Design • Define Conversational Solutions and IBM's four-step approach to building and deploying them • Consider risks and challenges at specific stages of the process of building and deploying Conversational Solutions • Examine specific best practices for Conversational Solutions Conversational AI Laws and Ethics • Identify key regulations affecting the building and deployment of Conversational AI in various parts of the world • Consider ways that Conversational AI can be used to misinform or harm users, either intentionally or unintentionally • Examine specific cases where Conversational AI can be used to help and harm—what works and what does not What's Next for

Conversational AI? • Examine the role of generative AI and other contemporary machine learning approaches in recent Conversational AI models, and consider how further advancements in these fields will change Conversational AI going forward • Witness one cutting-edge Conversational AI system in action: IBM Project Debater

Audience:

This course is intended primarily for learners with a focus on business and/or technology, and specifically those seeking to better understand what Conversational AI is, where it came from, and how it can benefit their organizations. Although the course does not cover the technical aspects of building Conversational AI, Data Scientists, Machine Learning Engineers, and other technically-inclined learners may still find concepts and best practices introduced in the subject matter to be useful.