The Business use of AI
Gaining insight from business patterns

Abstract

Your competitors are using AI to analyze sales, what do you do? Organizations today are applying artificial intelligence capabilities to a wide variety of uses especially in operations such as for process enablement. Each organization is focusing on performance improvements using AI. This explosion of interest in AI poses a challenge to managers for effectively make sense of and use AI effectively.

The most nimble and adaptable companies and executives will thrive. Organizations that can rapidly sense and respond to opportunities will seize the advantage in the AI-enabled landscape. (Erik Brynjolfsson and Andrew Mcafee, HBR,)
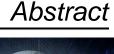
Understanding, organizing, integrating and delivering AI is a key issue today. Business must be clear about the use and value of AI to avoid chasing an unachievable and expensive dream.

AI carries with it many implications. Jobs change dramatically, current skill become obsolete and displaced, there may exist resistance to change and unrealistic fear of robots taking over as well as other aspects of automation. This was true when automation hit the factory floor in the 1960's and 1970's. Union issues may pale by comparison with white-collar response. Today pictures of auto assembly and other manufacturing plants show few workers. What detail work remains is slowly but surely giving way to automation.

However, the positive side promises better paying work, newer and more interesting tasks and less physically demanding and boring operations.

Managers and professionals should prepare for the coming changes. What happens when AI becomes part of the work process? What can we expect from AI capabilities today? What may happen in the future? Answers for these and other questions are part of the value of this course.

This course is key for business managers, strategic planners, marketing analysts, data analysts and architects, planning managers, process analysts, business analysts, business architects, enterprise and IT architects.

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Day One

Theme: AI Today

Section 1: Artificial Intelligence today
- What do we mean by AI
- Characteristics of AI:
- The AI value proposition?
- The simple goal focus of AI today
- Convergence of multiple AI goal seeking capability
- Defining your AI journey

   Video – Understanding Neural Nets

Section 2: Speech recognition
- What drives speech recognition?
- Uses of speech recognition – e.g. voice assistants, virtual assistants
- How useful is the Chatbot?
- Detecting emotions in speech
- Issues in speech recognition

   Exercise – What speech do you want to recognize?

Section 3: Image and facial recognition
- The technique of image recognition
- Uses of image recognition – compliance, crime detection, law enforcement
- Recognizing faces, logos, images, gender, objects
- Imaging and retail – store layout, shelf space analysis
- Issues with image recognition

   Interactive discussion – What do you want to detect

Section 4: Text analytics and AI
- The technique of text analytics
- Uses of semantic recognition analytics – Keyword and related phrase extraction
- Detecting emotions in text – sentiment analysis, summaries, content extraction
- NLP – Natural Language Processing
- Issues with facial recognition

   Video discussion – Can you depend on text analytical results?

   Exam – Day 1

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Day 2

Theme: AI Tomorrow

Section 5: Mapping patterns in data - Deep learning
- What is deep learning about?
- Deep learning and visual recognition, e.g. medical detection
- Deep learning in science research
- Fraud detection
- Trusting deep learning results

    Interactive Exercise – Sentiment analysis and AI

Section 6: Operationalizing AI
- Linking AI capability into processes
- Intelligent process automation, analytics and insight
- Robotic process automation
- Processes and chatbots
- Limits to AI linkages

    Exercise –

Section 7: The AI Roadmap
- Setting up the problem – what is your AI goal?
- How does your industry use AI now?
- What infrastructure will you need?
- Stages of AI growth and maturity

    Video Discussion – The AI Roadmap

Section 8: The promise of AI
- Management application of AI to the workplace
- Integrating AI in products and services
- Emerging uses of AI
- AI becomes pervasive
- Impact of the AI on the future of jobs

    Exercise – Final Q and A

    Exam –Day 2

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Learning Objectives

Expected Learning Outcomes (what they will learn):

- Explain the different uses of AI today

- Understand the techniques used for the different types of AI capability

- Define a roadmap to reach effective use of AI

- Explaining the technology available for AI

- Interpret how AI can help the business

- Select appropriate AI techniques for the business

- Understand the limits of AI

- Interpret social media data to understand market potential

- Suggest operational opportunities for AI