Module 3 (Case: VideaHealth)

Course Introduction: AI-Powered Strategy Decision-Making & Technology Strategy

Please click on the following links to have direct access to the modules. Modules 1 - 15 are indi

M 1 (https://canvas.vt.edu/courses/168287/pages/module-1)

M 2 (https://canvas.vt.edu/courses/168287/modules/358672

Overview

Welcome to Module 3! This module will last from Monday, January 30 @ 12:01 AM to Sunday, February 5 @ 11:59 PM. In this module, we will complete our Course Introduction modules by linking together our material on technology strategy, strategic decision-making, and artificial intelligence.

One of the major criticisms many folks have about incorporating AI systems within organizations is based on the false belief that these systems are purely rational systems that rely upon pre-programmed rules in order to make strategic decisions. These types of systems are what some AI leaders call GOFAI, or Good Old-Fashioned AI. This is the type of system that IBM built with Deep Blue to beat Garry Kasparov.

Although these types of systems are quite powerful, there are important limitations to deploying them to address strategic decision-making problems. This is due to the inherent complexity of anticipating external challenges such as the needs and changing preferences of customers or competitor moves. In many cases, there are simply too many possible choices to make for even the best developers to anticipate and build into these systems.

The emergence of a new wave of AI systems like those being developed by Deep Mind uses a different set of tools to address the problems of nearly infinite possibilities when making strategic choices. Furthermore, because these systems evolve and learn without direct supervision (or with minimal programming) of human developers, they offer the possibility of potential breakthrough solutions to complex strategic problems. In this way, the augmentation of strategic decision-making with these powerful AI tools points to a new future era of technology strategy.

Objectives

Upon completion of this module, students will be able to:

- Recognize the critical role AI will play in designing organizations of the future
- Apply AI tools to balance scale and scope in strategic decision-making
- Create data-driven strategies to solve complex strategic-making problems

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Readings (1 hour)

Required:

- Read the overview to Module 3
- Read Competing in the Age of AI: Chap. 2-3 (HBSP Coursepack)

Optional: (https://www.slideshare.net/ExternalEvents/ant-financial-our-rural-finance-practice)

- A Brief Taxonomy of AI (https://www.sharper.ai/taxonomy-ai/) (may require clicking through some privacy warning pages)
- AlphaZero: Shedding new light on chess, shogi, and Go (more about Deep Mind's approach to AI) (https://deepmind.com/blog/article/alphazero-shedding-new-light-grand-games-chess-shogi-and-go)

Watch (40 minutes)

- Lecture 3.1: AI & the Future of Organizational Design (https://youtu.be/77ga558qJT4)

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  - Lecture 3.1: Slide Deck (https://canvas.vt.edu/courses/168287/files/26483846/download?wrap=1)
- Lecture 3.2: The "A.I. Factory" (https://youtu.be/r0WxlH16BTE)

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- **Lecture 3.2: Slide Deck (https://canvas.vt.edu/courses/168287/files/26483908/download?wrap=1)**

Class Activities

Please make sure you complete the following activities before the end of the Module.

- Read Overview for Module Three
- Complete Assigned Readings
- **Complete Quiz #3 (https://canvas.vt.edu/courses/168287/quizzes/421337)**
- Watch Lectures 3.1 & 3.2
- **Case #2: VideaHealth (https://canvas.vt.edu/courses/168287/discussion_topics/1525896)**

Assignment (3 hours)

These are the graded components of the Class Activities listed above.

- **Complete Quiz 3 (https://canvas.vt.edu/courses/168287/quizzes/421337)**
- **Case #2: VideaHealth (https://canvas.vt.edu/courses/168287/discussion_topics/1525896)**

Recitation (1 hour)

Please note that you are not required to attend the weekly optional office hours from 7-8 PM on Thursdays. All weekly Zoom meetings will be recorded. We will be discussing the process for case discussions this week so please join us if you can. The optional session will be recorded for everyone who cannot attend. You will be able to access the video after it finishes processing (usually 24-48 hours after it is recorded) through the Media Gallery (Course) on the left-hand side of the screen here on Canvas.

- **https://virginiatech.zoom.us/j/81038408606 (https://virginiatech.zoom.us/j/81038408606)**

Optional Materials

Please find the following optional materials for the module.

- **Can Robots Be Creative? (Ted Talk: Gil Weinberg)**
  (https://www.ted.com/talks/gil_weinberg_can_robots_be_creative)