# Introduction to AI Lesson Based on Videos by Dr. Patrick Martin

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| **Learning Objectives** | **Discussion(s)** | **Assignment(s)** | **Learning Resources + Media** |
| After this lesson, you will be able to …   * Recognize how AI is used in your daily lives * Think creatively about potential applications of AI * Understand the ethical implications of collecting data on a userbase * Think critically about ethical vs. unethical applications of AI | What is artificial intelligence, and how does it differ from traditional software? What are some examples of AI that are part of your daily life?  How does Spotify use AI? What types of AI technology did you recognize from the Introduction to AI and Machine Learning videos? What other apps use AI?  From our exploration of Spotify and other applications, it is evident that these apps are collecting information about you. How do you feel about that? Is this an invasion of privacy, or simply taking advantage of data to make a better product for the user?  Look back at the example application of AI from the assignment due next week. Discuss the ethical implications of an algorithm writing a paper for you. | **Assignment 1**  What’s a process you wish you could automate? For example, don’t you wish that instead of writing papers, you could feed an algorithm your notes from class and have it produce a coherent paper for you? Do a quick Google search of your idea and see if any of this technology already exists. In about 500 words, briefly explain the process you’d like to automate, if any such technology already exists, and potential problems (technical or ethical) with implementing this technology.  **Assignment 2**   * Watch the video Introduction to Machine Learning * Read the Spotify AI article and jot down some connections you see between the article and the Machine Learning video. Be prepared to discuss in class.   **Assignment 3**  We’ve discussed a variety of ethical concerns involved in the implementation of AI. Use the fishbone diagram template to model how each of these concerns affects the ethics of AI, and provide examples of each concern. The first example has been started for you to demonstrate how to structure the diagram. | Videos:   * Introduction to AI: <https://www.youtube.com/watch?v=EQfX2dlrlNo&feature=youtu.be> * Introduction to Machine Learning: <https://www.youtube.com/watch?v=rJKmygzqM_E&feature=youtu.be>   Articles:   * Elements of AI: <https://course.elementsofai.com/2> * Problem Solving in AI: <https://www.tutorialandexample.com/problem-solving-in-artificial-intelligence/> * Introduction to Natural Language Processing: <https://becominghuman.ai/a-simple-introduction-to-natural-language-processing-ea66a1747b32> * AI and Neural Networks: <https://www.the-scientist.com/magazine-issue/artificial-intelligence-versus-neural-networks-65802#:~:text=Machine%20Learning-,Neural%20Networks,is%20fed%20into%20the%20system>. * Neural Networks: <http://neuralnetworksanddeeplearning.com/chap1.html> * How Spotify Uses AI: <https://outsideinsight.com/insights/how-ai-helps-spotify-win-in-the-music-streaming-world/> * Smart TV's Listening to Their Users: <https://www.cnbc.com/2017/03/09/if-you-have-a-smart-tv-take-a-closer-look-at-your-privacy-settings.html#:~:text=In%202015%2C%20Samsung%20drew%20criticism,require%20users%20to%20press%20a> |