

# Snake oil and Artificial Intelligence

## How to recognize AI snake oil

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# Outline

## I. Introduction and Motivation

- ➊ Motivation to arrive to this talk
- ➋ Snake oil
- ➌ Artificial Intelligence

## II. The different flavors of AI snake oil

- ➊ Misclassification of a company
- ➋ Pseudo-AI
- ➌ Relatives of AI

## III. How to recognize AI snake oil

# I. Introduction

- The purpose of this work is to present some current **Data Science News** for DDS Section 402 - Fall 2019 in the program MSDS of SMU.
- Last week, the Princeton computer scientist **Arvind Narayanan** has posted slides and notes from a recent MIT talk on "**How to recognize AI snake oil**". This subject has been raised by David Josephs.

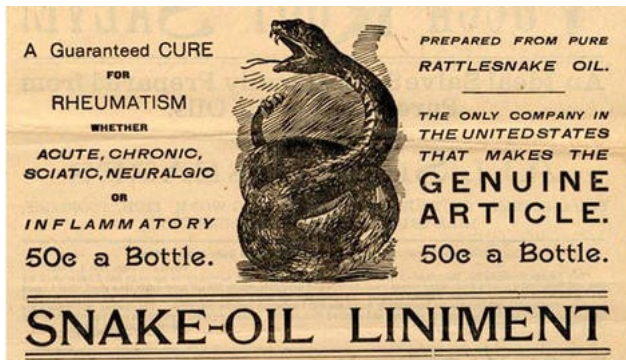
Link: <https://www.cs.princeton.edu/~arvindn/talks/MIT-STS-AI-snakeoil.pdf>

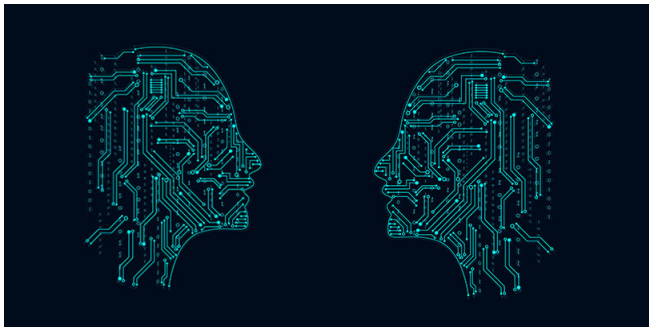
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- **Snake oil:** In the 19<sup>th</sup> century, salesmen would travel around selling "snake oil" as a panacea. But most of these elixirs and ointments held no medicinal benefits and did not contain oil extracted from snakes. So rampant was this con, that snake oil became a universal term for fake products and false promises.

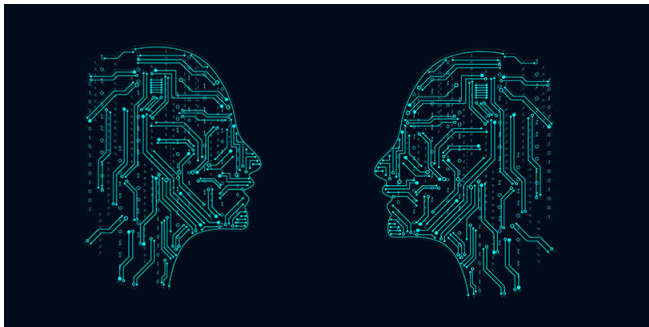




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## Artificial Intelligence

In computer science, **Artificial Intelligence (AI)**, sometimes called machine intelligence, is intelligence demonstrated by machines, in contrast to the natural intelligence displayed by humans.

Leading AI textbooks define the field as the study of "Intelligent agents": any device that perceives its environment and takes actions that maximize its chance of successfully achieving its goals. Colloquially, the term "artificial intelligence" is often used to describe machines (or computers) that mimic "cognitive" functions that humans associate with the human mind, such as "learning" and "problem solving".

▶ [https://en.wikipedia.org/wiki/Artificial\\_intelligence](https://en.wikipedia.org/wiki/Artificial_intelligence)



## II. The different flavors of AI snake oil

- **Misclassification of a company:** As discussed in the study, sometimes people assume that a company uses AI within their offering and processes, even when it doesn't. As a result, the products or services these companies sell can come with a side serving of AI snake oil.

## II. The different flavors of AI snake oil

- **Pseudo-AI:** There have been some recent incidents involving the exposure of major AI snake oil. Namely, the revelation of humans acting as AI. This is often unbeknown to the investors and customers of the business. Nicknamed the 'Wizard of Oz technique', this is a more active deception. Companies are purposefully deceiving customers.

## II. The different flavors of AI snake oil

- **Relatives of AI:** The final type of AI snake oil is when a company presents a non-AI product or function as artificial intelligence. When non-AI applications are sold as AI, or AI is a selling point for them, they become another flavour of AI snake oil.

### III. How to recognize AI snake oil

We will go to the lecture of Arvind Narayanan.

▶ <https://www.cs.princeton.edu/~arvindn/talks/MIT-STS-AI-snakeoil.pdf>

# Main References

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**Thank you for your attention**