

# **General vs Narrow AI**

Some computer algorithms are capable of mimicking human intelligence, to reason and solve problems on their own, and to apply previously acquired knowledge on completely new types of problems. These algorithms fall into the domain of:

##### **Answer the question**

**50 XP**

##### **Possible Answers**

* Artificial **Narrow** Intelligence (Narrow AI)

press

* Artificial **General** Intelligence (General AI) **(A)**

press

* Correct! However, General AI is still science fiction, while Narrow AI dominates the current landscape of Data Science.

# **Why Python?**

Python is the best choice for developing machine learning solutions. Why is that the case?

##### **Answer the question**

**50 XP**

##### **Possible Answers**

* Python has a simple and beautiful syntax.

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* Python is very versatile.

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* Python is very flexible.

press

* Python offers rich AI-related libraries.

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* The Python community is big and growing fast.

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* All of the above. **(A)**

Correct! And precisely for all of these reasons Python's position as the top language for Data Science and Machine Learning will hardly be disputed in the near future.

# **The elephant in the room**

To further illustrate the concept of Narrow AI, let's see what happens when an algorithm trained for one problem, is given a completely unrelated input and asked for a prediction.

Specifically, what happens when you feed a picture of an elephant into a model that is trained to recognize handwritten digits?

To make things simple, a digit recognition model has been pre-trained. Your task is to feed the elephant image into it and see the result.

##### **Instructions**

**100 XP**

* Feed the elephant\_image into the digit\_predictor.

In [3]: elephant\_image

Out[3]:

array([[0, 0, 1, 1, 1, 0, 1, 1, 0, 1, 1, 1, 1, 0, 1, 1, 0, 1, 0, 1, 0, 0,

0, 0, 1, 0, 1, 0, 0, 0, 1, 0, 1, 1, 1, 1, 1, 1, 1, 1, 1, 0, 0, 0,

0, 0, 1, 1, 1, 1, 1, 1, 1, 0, 0, 0, 0, 1, 1, 1, 0, 1, 1, 1]])

# Load the test example

elephant\_image = load\_elephant()

# Apply the model on the test example

test\_digit\_predictor(elephant\_image, 'elephant')

<script.py> output:

Actual digit: elephant

Recognized digit: 7

Interesting, right? Although being the pinnacle of technology, AI systems can also be easily misused and abused -- even tricked, if that is the intention!



