

**Faculty of engineering - Shoubra Benha University**

# Research Article / Research Project / Literature Review

in fulfillment of the requirements of

|  |  |
| --- | --- |
| **Department** | **Engineering Mathematics and Physics** |
| **Division** | **English** |
| **Academic Year** | **2019-2020 Preparatory** |
| **Course name** | **Computer** |
| **Course code** | **ECE001** |

**Title: -**

**Artificial Intelligence**

By:

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| --- | --- |
| Examiners committee | Signature |
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| **Dr.Abdelhamid Attaby** |  |

**Html project is uploaded to Github Repository:**

<https://github.com/mgelwa/html_project>

**and published on Github Pages:**

<https://mgelwa.github.io/html_project/>

# Abstract

Artificial Intelligence (AI) that term that we’ve always been hearing about in the sci-fi movies and TV shows but we never thought it is so involved in our day to day lives.

In this project we tried to unveil some of the mysteries about Artificial Intelligence and its applications.

# Table of contents

Divide your research into sections or subjects, mention each section first page at this table

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# Literature Review

In this project HTML technology is used to create an illustrative website to discuss some of the aspects of Artificial Intelligence .

# Website

## Home page:

## 

## Source code:

<html>

<head>

<img src="AI.jpg" style="display: block;margin-left: auto; margin-right: auto;width: 100%;">

</head>

<body style="margin: auto; width: 60%; padding: 50px; background-color:rgb(230,240,250);">

<h1 style="font-size:60px;text-align:center">Artificial Intelligence (AI)</h1>

<div>

<h2 style="font-size:40px;text-align:center">What is Artificial Intelligence?</h2>

<p style="font-size:25px;text-align:left;padding: 20px;">

Artificial Intelligence (AI) is the ability of a digital computer or computer-controlled robot

to perform tasks commonly associated with intelligent beings.

The term is frequently applied to the project of developing

systems endowed with the intellectual processes characteristic of humans.

</p>

<p style="color: rgb(42,107,244);font-size:25px; text-align:center; padding: 10px;">

"Artificial intelligence is a set of algorithms and intelligence try to mimic human intelligence.

Machine learning is one of them, and deep learning is one of those machine learning techniques."

</p>

</div>

<div style="text-align:center;position:bottom;">

<table style="font-size:15px;margin: auto; width: 50%; padding: 20px; text-align:center;">

<tr>

<td>Home</td>

<td><a href="page1.html">page 1</a></td>

<td><a href="page2.html">page 2</a></td>

<td><a href="page3.html">page 3</a></td>

<td><a href="page4.html">page 4</a></td>

</tr>

</table>

</div>

</body>

</html>

## The beginning of Artificial Intelligence (Page 1):

## 

# source code:

<html>

<head>

<img src="AI.jpg" style="display: block;margin-left: auto; margin-right: auto;width: 100%;">

</head>

<body style="margin: auto; width: 60%; padding: 50px; background-color:rgb(230,240,250);">

<h1 style="font-size:60px;text-align:center">Artificial Intelligence (AI)</h1>

<div>

<div>

<h2 style="font-size:40px;text-align:center">Alan Turing and The Beginning Of AI?</h2>

<div>

<img src="Alan-Turing.jpg" style="display: block;margin-left: auto; margin-right: auto;width: 50%;hight:50%;">

<p style="padding: 10px;font-size:20px;text-align:center">Alan Turing, c. 1930s</p>

</div>

<div>

<p style="font-size:30px;text-align:left;padding: 10px;">

During World War II, Turing was a leading cryptanalyst at the Government Code and Cypher School in Bletchley Park, Buckinghamshire, England. Turing could not turn to the project of building a stored-program electronic computing machine until the cessation of hostilities in Europe in 1945. Nevertheless, during the war he gave considerable thought to the issue of machine intelligence. One of Turing’s colleagues at Bletchley Park, Donald Michie (who later founded the Department of Machine Intelligence and Perception at the University of Edinburgh), later recalled that Turing often discussed how computers could learn from experience as well as solve new problems through the use of guiding principles a process now known as heuristic problem solving. Turing gave quite possibly the earliest public lecture (London, 1947) to mention computer intelligence, saying, "What we want is a machine that can learn from experience, "and that the "possibility of letting the machine alter its own instructions provides the mechanism for this." In 1948 he introduced many of the central concepts of AI in a report entitled “Intelligent Machinery." However, Turing did not publish this paper, and many of his ideas were later reinvented by others. For instance, one of Turing’s original ideas was to train a network of artificial neurons to perform specific tasks, an approach described in the section Connectionism.

</p>

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<div style="text-align:center;">

<table style="font-size:15px;margin: auto;width: 50%;padding: 20px;text-align:center;">

<tr>

<td><a href="index.html">Home</a></td>

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# Chess and artificial Intelligence (Page 2):

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# source code:

<html>

<head>

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</head>

<body style="margin: auto; width: 60%; padding: 50px;background-color:rgb(230,240,250);">

<h1 style="font-size:60px;text-align:center">Artificial Intelligence (AI)</h1>

<div>

<div>

<h2 style="font-size:40px;text-align:center">Chess And Artificial Intelligence</h2>

<div>

<tr><img src="Chees.jpg" style="display: block;margin-left: auto; margin-right: auto;width: 60%;">

<p style="font-size:20px;text-align:center;padding: 10px;">

The Turk, a chess-playing pseudo-automaton, shown with its cabinet doors open, allowing spectators to view its machinery. Engraving, Illustrated London News, 1845</p>

</div>

<div>

<p style="font-size:30px;text-align:left;padding: 10px;">

Machines capable of playing chess have fascinated people since the latter half of the 18th century, when the Turk, the first of the pseudo-automatons, began a triumphal exhibition tour of Europe. Like its 19th-century successor Ajeeb, the Turk was a cleverly constructed cabinet that concealed a human master. The mystery of the Turk was the subject of more than a dozen books and a widely discussed article written by Edgar Allan Poe in 1836. Several world-class players were employed to operate the pseudo-automatons, including Harry Nelson Pillsbury, who was Ajeeb during part of the 1890s, and Isidor Gunsberg and Jean Taubenhaus, who operated, by remote control, Mephisto, the last of the pseudo-automatons, before it was dismantled following World War I.

</p>

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<div style="text-align:center;">

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# Applications of Artificial Intelligence (Page3):

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<html>

<head>

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<body style="margin: auto; width: 60%; padding: 50px;background-color:rgb(230,240,250);">

<h1 style="font-size:60;px;text-align:center">Artificial Intelligence (AI)</h1>

<div>

<h2 style="font-size:40px;text-align:center">Artificial Intelligence Applications</h2>

<p style="font-size:25px;text-align:left;padding: 10px;">

AI has been used to develop and advance numerous fields and industries,

including finance, healthcare, education, transportation, and more.</p>

<table style="padding: 15px; font-size:20px; vertical-align:top;">

<tr><td>Agriculture</td>

<td>In agriculture new AI advancements show improvements in gaining yield and to increase the research and development of growing crops. New artificial intelligence now predicts the time it takes for a crop like a tomato to be ripe and ready for picking thus increasing efficiency of farming. </td></tr>

<tr><td>Education</td>

<td>In future classrooms, ambient informatics can play a beneficial role. Ambient informatics is the idea that information is everywhere in the environment and that technologies automatically adjust to your personal preferences.[22] Study devices could be able to create lessons, problems, and games to tailor the specific student's needs, and give immediate feedback. </td>

</tr>

<tr><td>Hospitals and medicine</td>

<td>

Artificial neural networks are used as clinical decision support systems for medical diagnosis, such as in Concept Processing technology in EMR software.Other tasks in medicine that can potentially be performed by artificial intelligence and are beginning to be developed include:

<ul>

<li>Computer-aided interpretation of medical images. Such systems help scan digital images, e.g. from computed tomography, for typical appearances and to highlight conspicuous sections, such as possible diseases. A typical application is the detection of a tumor. </li>

<li>Heart sound analysis</li>

<li>Companion robots for the care of the elderly</li>

<li>Mining medical records to provide more useful information.</li>

<li>Design treatment plans.</li>

</ul></td></tr>

</table></div>

<div style="text-align:center;">

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# Top Myths About Advanced AI (Page 4):

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# Page 4 Source Code:

<html>

<head>

<img src="AI.jpg" style="display: block;margin-left: auto; margin-right: auto;width: 100%;">

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<body style="margin: auto; width: 60%; padding: 50px;background-color:rgb(230,240,250);">

<h1 style="font-size:60px;text-align:center">Artificial Intelligence (AI)</h1>

<div>

<h2 style="font-size:40px;text-align:center">The Top Myths About Advanced AI</h2>

<p style="font-size:25px;text-align:left;padding: 10px;">

A captivating conversation is taking place about the future of artificial intelligence and what

it will/should mean for humanity. There are fascinating controversies where the world’s leading

experts disagree, such as: AI’s future impact on the job market, if/when human-level AI will be developed,

whether this will lead to an intelligence explosion, and whether this is something we should welcome or fear.

But there are also many examples of boring pseudo-controversies caused by people misunderstanding and

talking past each other. To help ourselves focus on the interesting controversies and open questions —

and not on the misunderstandings — let’s clear up some of the most common myths.

</p>

<img src="myths.jpg" style="display: block;margin-left: auto; margin-right: auto;width: 100%;">

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<table style="font-size:15px;margin: auto;width: 50%;padding: 20px;text-align:center;">

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# Results and discussion

**Artificial Intelligence** (AI) is the ability of a digital computer or computer-controlled robot to perform tasks commonly associated with intelligent beings. The term is frequently applied to the project of developing systems endowed with the intellectual processes characteristic of humans.

**"Artificial intelligence is a set of algorithms and intelligence try to mimic human intelligence. Machine learning is one of them, and deep learning is one of those machine learning techniques."**

**Understanding Artificial Intelligence**

When most people hear the term artificial intelligence, the first thing they usually think of is robots. That's because big-budget films and novels weave stories about human-like machines that wreak havoc on Earth. But nothing could be further from the truth.

Artificial intelligence is based on the principle that human intelligence can be defined in a way that a machine can easily mimic it and execute tasks, from the simplest to those that are even more complex. The goals of artificial intelligence include learning, reasoning, and perception.

As technology advances, previous benchmarks that defined artificial intelligence become outdated. For example, machines that calculate basic functions or recognize text through optimal character recognition are no longer considered to embody artificial intelligence, since this function is now taken for granted as an inherent computer function.

AI is continuously evolving to benefit many different industries. Machines are wired using a cross-disciplinary approach based in mathematics, computer science, linguistics, psychology, and more.

## Applications of Artificial Intelligence

The applications for artificial intelligence are endless. The technology can be applied to many different sectors and industries. AI is being tested and used in the healthcare industry for dosing drugs and different treatment in patients, and for surgical procedures in the operating room.

Other examples of machines with artificial intelligence include computers that play chess and self-driving cars. Each of these machines must weigh the consequences of any action they take, as each action will impact the end result. In chess, the end result is winning the game. For self-driving cars, the computer system must account for all external data and compute it to act in a way that prevents a collision.

Artificial intelligence also has applications in the financial industry, where it is used to detect and flag activity in banking and finance such as unusual debit card usage and large account deposits—all of which help a bank's fraud department. Applications for AI are also being used to help streamline and make trading easier. This is done by making supply, demand, and pricing of securities easier to estimate.

### KEY TAKEAWAYS:

* Artificial intelligence refers to the simulation of human intelligence in machines.
* The goals of artificial intelligence include learning, reasoning, and perception.
* AI is being used across different industries including finance and healthcare.
* Weak AI tends to be simple and single-task oriented, while strong AI carries on tasks that are more complex and human-like.

Beyond our quantum-computing conundrum, today's so-called A.I. systems are merely advanced machine learning software with extensive behavioral algorithms that adapt themselves to our likes and dislikes. While extremely useful, these machines aren't getting smarter in the existential sense, but they are improving their skills and usefulness based on a large dataset. These are some of the most popular examples of artificial intelligence that's being used today.

## Siri

Everyone is familiar with Apple's personal assistant, Siri. She's the friendly voice-activated computer that we interact with on a daily basis. She helps us find information, gives us directions, add events to our calendars, helps us send messages and so on. Siri is a pseudo-intelligent digital personal assistant. She uses machine-learning technology to get smarter and better able to predict and understand our natural-language questions and requests.

## Amazon.com

Amazon's transactional A.I. is something that's been in existence for quite some time, allowing it to make astronomical amounts of money online. With its algorithms refined more and more with each passing year, the company has gotten acutely smart at predicting just what we're interested in purchasing based on our online behavior. While Amazon plans to ship products to us before we even know we need them, it hasn't quite gotten there yet. But it's most certainly on its horizons.

## Netflix

Netflix provides highly accurate predictive technology based on customer's reactions to films. It analyzes billions of records to suggest films that you might like based on your previous reactions and choices of films. This tech is getting smarter and smarter by the year as the dataset grows. However, the tech's only drawback is that most small-labeled movies go unnoticed while big-named movies grow and balloon on the platform.

### Alexa

Alexa's rise to become the smart home's hub, has been somewhat meteoric. When Amazon first introduced Alexa, it took much of the world by storm. However, its usefulness and its uncanny ability to decipher speech from anywhere in the room has made it a revolutionary product that can help us scour the web for information, shop, schedule appointments, set alarms and a million other things, but also help power our smart homes and be a conduit for those that might have limited mobility.

### Tesla

If you don't own a Tesla, you have no idea what you're missing. This is quite possibly one of the best cars ever made. Not only for the fact that it's received so many accolades, but because of its predictive capabilities, self-driving features and sheer technological "coolness." Anyone that's into technology and cars needs to own a Tesla, and these vehicles are only getting smarter and smarter thanks to their over-the-air updates.

# Conclusion

Humans have been always trying to invent machines capable of performing tasks on their behalf started with the industrial revolution and still evolving to this moment and expected to invade every little aspect of humans’ lives.

Artificial Intelligence is one of the most growing and demanded fields over the last decade.