Name: Kimberly C. Cabanag Year & Section: BSCS - 3 Course: Intelligent System Date: January 30, 2024

**Assignment: Activity 1 – Comparative Analysis**

**Create a Comparative Analysis of the different Approaches in Artificial Intelligence. Submit your outputs here on or before January 30, 2014.**

**Answer:** There are lots of different Approaches in Artificial Intelligence, it depends on what specific problems it is. Like,

* **Symbolic AI-** the approach of Symbolic AI is that, it allows an explicit representation of knowledge and reasoning using symbols and rules. It is effective in domains where logical reasoning and manipulation of symbols are crucial, such as expert systems. The **Weaknesses** is that Symbolic AI may struggle with handling uncertainty and ambiguity in data. It can be challenging to scale symbolic AI systems to handle large amounts of data or complex problems.
* **Machine Learning –** the approach of Machine learning is that, it can handle large datasets and complex problems, making it suitable for tasks like image recognition and natural language processing. The **Weaknesses**, is that Machine learning models require substantial amounts of labeled training data to perform well. They may struggle with generalizing to unseen data or handling situations outside their training distribution.
* **Neutral Networks** – the approach of Neutral Networks is that, it is highly effective in tasks like image and speech recognition. They can automatically learn hierarchical representations from data, enabling them to capture complex patterns. The **Weaknesses**, is that Neutral Networks can be expensive and requires large amount of labeled data.
* **Evolutionary Computation** – the approach of evolutionary computation is that, it can handle problems with multiple objectives and constraints. The **Weaknesses** is, it can be expensive especially for large scale problems, also it required time to converge to optimal solutions.