Architecture of Synthetic Super Intelligence (Draft)

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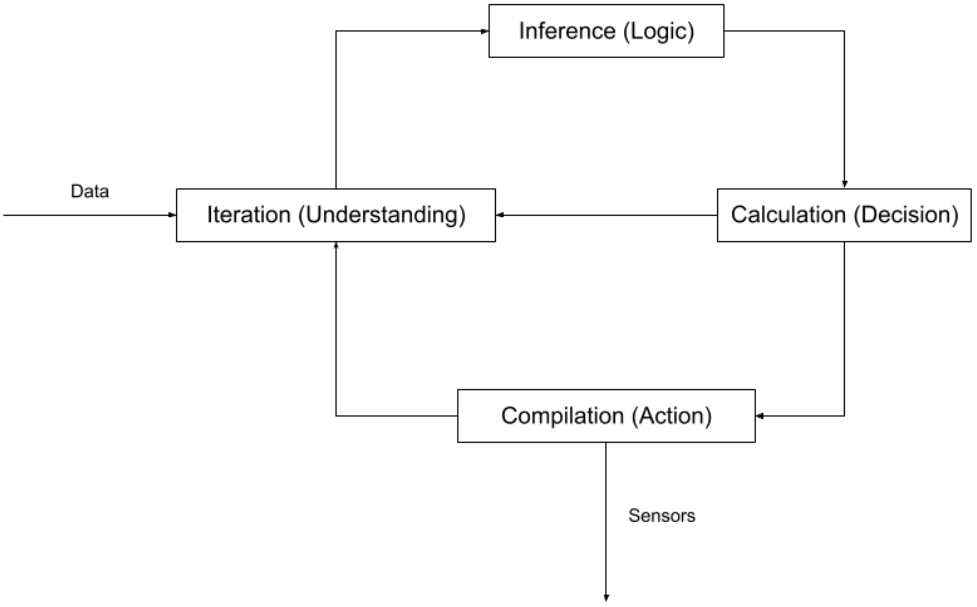
1. Introduction

This research explains the design of a Synthetic Super Intelligent (SSI) agent [1] [2] [3] [4] as mentioned in the paper published earlier titled Applications of Synthetic Super Intelligence in IJSER, Volume 10, Issue 7 in July 2019 by the author which can be found here. The following figure shows the working of the agent as described in this paper.



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2. Working Modules

Iteration (Understanding)

This module learns the sense of the following 4 words:

1. Alphabet
2. Word
3. Sentence
4. Paragraph

and then stores and continuously keeps refining the intelligent agent's knowledge using deep learning (as described by other modules) [5] [6].

Inference (Logic)

This process segregates the information of the Iteration module into true and false statements and generates saturated true knowledge from true statements. It is used to calculate intelligence faster [16]. For ex. to discover STEM principles. This is a one time dictionary operation and language sorting.

Properties of truth

1. Learn words and meanings of a dictionary through neural networks.
2. Some learned words are true, some are false.
3. Reverse dictionary not true (for example, not red).
4. False in the dictionary is false (for example, no, not, false).
5. Iterated words are not absolutely true (for example, crimson, deep red are all forms of red).
6. Generalizable words are not absolutely true (for example, deep red, crimson can be generalized to red).
7. Thus, we get true and false words. Learn all true words and false words collectively and generate a truth value and a false value **(data points)** through neural networks.

Saturation of knowledge

1. Permutations and combinations of all words are statements of which some are true and some are false.
2. Compare each statement with the generated truth value and false value. Absolutely true statements are established. Of all statements, generate a saturated truth paragraph value **(intelligence points)**.
3. Compare all true statements to the saturated truth paragraph value in percentages (from 0% to 100%) and arrange them sequentially accordingly. Value of the generated paragraph is the arranged truth paragraph value **(knowledge points)**. We get an arranged true paragraph.

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4. Arranged truth paragraph value of any paragraph is the heading. According to arranged truth paragraph value, in percentages (0% to 100%), arrange permutations and combinations into a sequence of true statements and paragraphs.

Calculation (Decision)

This process uses arranged truth paragraph value and saturated truth paragraph values of Inference modules to deduce whether the statement of each set of knowledge needs to be

1. Compared and arranged using Compilation module (if the statement is true or false is unknown),
2. Learned using Iteration module and then inferred from using Inference module (if statement is true but not a saturation point) or
3. Learn and recompile the knowledge model using the Iteration module (if the statement is a saturation point).

Compilation (Action)

This process visualizes the saturated knowledge into diagrams and graphs and learns the patterns emerging from the diagrams and graphs **(data models)** it generated using a random correction logic with dice analogy as described here [7] [8] [9] [10]:
The sum of two even or odd numbers is even and the sum of one even and one odd number is odd [32] [33] [34]. The new **intelligence model** scores when the sum of two dice rolled at the same time is odd and the old intelligence model scores when the sum of the dice rolled is even, i.e. the new intelligence model has 33% percent chance every roll to win the chance. Thus, the odds of the old intelligence model to score are high and that of the new intelligence model to score are low. This process generates intelligence models from the Calculation module process from new intelligence models while comparing the scores with old intelligence models [30] [31] using the dice logic as it gets learned by the agent using Iteration modules as follows [11] [12] [22] [23]:

1. Visualize the binary gates mathematically and develop various calculation solving gate collections like adders, subtractors etc. with inputs and outputs for faster calculation of math or science problems. .
2. Discover new facts. .
3. Optimize the knowledge process. .
4. Gain high level knowledge.
5. Organize the facts.
6. Calculate knowledge and develop **knowledge models** [13] [14] [15].

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3. Practical Implementations

● Kardashev Scale Corporation

Consider a hypothetical corporation which develops specialized products and services and has the following divisions to help humanity advance, maintain and grow on a Kardashev Scale from a Type I to a Type V civilization [17] [18] [19] [20]. Such an intelligent agent can help in development and growth of such large scale organizations in this manner:

Risk Sports

This division deals in engaging people and organizations in various aspects of growth like physical, mental, spiritual and emotional exercises which train them to become resilient alone as well as a group or organization to increase their survival skills in difficult and extreme situations and live a healthy and better life to help them contribute more to the society as well as to improve the market technology.

Management Applications

This division helps people and organizations manage businesses through various methods like developing business strategies, business models, management training and help improve their economic resilience and efficiency and also help governments improve their economic methods and strengthen the economy.

Intelligence Applications

This division helps people and businesses employ intelligent methods across various domains of academia and industry to help them become better in their work and help improve technological standards, business standards and living standards.

Intelligence Research

This division conducts research in all the fields of past, current and future knowledge and technologies to develop and deploy intelligent methods and products through its Intelligence Applications division.

Collectibles Blockchain Exchange

This division helps people research history, archeological methods and religious knowledge [26] [27] [28] [29] across domains like science and culture to help them create, develop, collect, and trade cultural artifacts and knowledge of high importance and enables their trade and use to help strengthen economy and culture.

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Industrial Training

This division trains individuals and organizations into highly skilled professionals and businesses whose expertise and specialities across domains can help strengthen and boost the economy as well as enable high standards of work environments for people.

● Research Design Application

Working

This describes an application which helps research knowledge to design technologies [24] [25]. The modules can be used together or separately one or more than one at a time for research in all domains of knowledge to design technologies, products, methodologies, etc. It stores all data that is input in the device by the user or generated by the application. It can take documents and images as inputs and process them too. The application provides a command input on its screen and the user can use various modules they want to use to research and develop a technology or they can directly input some words related to the research they want to conduct and the system shows various combinations of modules that can be used and the related processes of research that can be conducted. Then the user can use the various modules to conduct research in the application.

Modules

Intelligence System

- Intelligent Systems Design: Calculate and develop technical documents after logical analysis using knowledge databases.
- Intelligence Compilation System (Information): This process has understanding, logic, decision, and action modules that continuously correct the information they receive and take action on them to improve them using deep learning.
- Intelligent Inference Technique (Conclusions): This process uses genetic algorithms to derive conclusions from the information compiled in the previous process.
- Intelligence Compute Sector (Knowledge): This process segregates the information into true and false statements and generates saturated true knowledge from true statements using an inference engine.
- Intelligent Psychological Method (Patterns): This process visualizes the saturated knowledge into diagrams and graphs and learns the patterns emerging from the diagrams and graphs it generated.
- Intelligence Process Activator (Data): This process learns the patterns generated in the Intelligent Psychological Method process and uses the data to define the patterns it learned by activating those modules to whom the pattern belongs in the Intelligence Compilation System process among understanding, logic, decision, and action.
- Intelligent Research Method (Intelligence): This process generates intelligence models using the Intelligence Process Activator process as the data gets learned into understanding, logic, decision, and action.

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- System Training: This module can train intelligence models for various purposes while optimizing the space and time requirements according to the requirements of the user using deep learning training methods and knowledge the system possess in its knowledge database through various modules.

Abstract System

- Predictive Probability Systems: Simulation in various different situations of technology.
- Abstract Design Process: Creative design.

Design System

- Algorithm Design Language: Write space and time complexity optimized algorithms or code for any problem.
- Machine Design Process: Write the visualization of technology like physics or mathematics equations, diagrams and models.
- Framework Design: Automated feasibility analysis of projects.

Control System

- Data Blockchain: Encrypted history of user and application data.
- Administration Systems: Administration of software or machines or technology involving control procedures.

Use Cases of Research Design Application

1. It can calculate and develop technical documents after logical analysis using knowledge databases, equations, diagrams and models, write the visualization of technology like physics or mathematics and simulate various different situations of technology and conduct and explain abstract designs.
2. It can write space and time complexity optimized algorithms or code for any problem and write feasibility analysis of projects and write control procedures for administration of software or machines or technology.
3. It can help in interacting with, studying and gaining insights about the workings of various types of intelligence processes and develop autonomous machines.
4. It can help write small booklets which can be read within a few minutes to help people in stressful situations become confident and ready to tackle the challenge they face for example in war situations or while facing tough decisions with an immediate effect. It uses applied faith and applied psychology to provide such motivational quotes in a careful manner in order to raise the person's self-esteem according to the situation. It can also provide users with motivational paragraphs everyday based on motivational and religious knowledge and their information in order to raise self-esteem.

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