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Generated Artificial General Intelligence: The Philosophical Principle of Artificial General Intelligence and Give an Example

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Abstract

In recent years, with the development of brain science, neuroscience and cognitive science, artificial intelligence technology has made a series of achievements. However, it still fails to achieve the human level of universal artificial intelligence, and the cognitive structure and consciousness are still unsolved mysteries. This paper integrates the evolutionary laws of the universe, life and thinking, summarizes a model of generated general intelligence and reveals its philosophical principle and algorithm structure, and then calculates the functions of thinking and consciousness one by one. The results show that the model and its based principles and algorithms conform to the characteristics of biology, physics, neuroscience, cognitive science and philosophy of intelligent species. It is an implementation model of artificial general intelligence that simulates human intelligence. This paper reveals the characteristics of cognition, thinking and consciousness, which also has a good enlightenment to the operation mode of human cognition, thinking and consciousness.

Keywords: Universal generated system • Heart sense • Heart-sensing generated model of entity • Generated artificial general intelligence • Neuroscience • Cognitive structure • Consciousness

Introduction

Having wisdom and using tools are two typical features that distinguish mankind from all other things. Creating intelligent tools will be a great revolution for human beings. The brain, as the source of human wisdom, is the last mysterious place of human beings. Limited to the development of neuroscience and cognitive science, since Alan Turing proposed the Turing machine [1] and the term "Artificial intelligence" is first proposed at the Dartmouth conference in 1956 [2]. For more than 70 years, artificial intelligence technology has started from simulating human brain [3,4], and experienced three stages [5], from upsurge to cold silence, then to upsurge, and formed three categories, the connectionist or structuralism school simulating the neuronal structure; the functionalist or symbolism school simulating the brain function and the behaviourism school simulating human behavior. And in the field of expert system, automatic theorem proof has made a series of development, especially by development of Deep Learning on the basis of statistics, coupling in pattern recognition, machine learning, natural language processing, automatic driving and so on made good application, but still in illogical thinking, common sense, complex systems, interpretability is limited [6-10].

At present, because artificial intelligence are involved mostly a certain professional field, mostly simulating the primary cognitive thinking ability such as perception and memory of human intelligence, and the academic community generally defines this level of artificial intelligence as weak artificial intelligence or special artificial intelligence; in all fields, artificial intelligence that simulates higher thinking such as associations, decisions, and emotions of human intelligence is defined as strong artificial intelligence or artificial general intelligence, which is also called human-like intelligence. After the implementation of artificial general intelligence, artificial intelligence that exceeds the level of human intelligence in some areas is called super artificial intelligence [11] at present, the drawbacks of special artificial intelligence are gradually emerging, and artificial general intelligence has gradually become a new hot spot [12] with the new development of neuroscience [13] and cognitive science [14], there have been research on the hardware direction of simulating brain neurons and structures, and the software aspect has generally followed the three major research methods of special artificial intelligence, such as the NARS system [15-17]. But progress is still not optimistic, and there are no public reports of the formation of artificial general intelligence. From the perspectives of philosophy, physics, neuroscience, cognitive science, linguistics, computer science, etc., based on the principles of universal generated philosophy,0020 this paper proposes a new a model of generated artificial general intelligence, explains its philosophical principles, construction models, implementation models, and attaches examples.

Principles and Methods

Starting from the historical footprints of the evolution of the universe and life, this paper uses the relevant theories of philosophy, physics and biology, and combines the essence of chinese civilization such as ancient chinese BAGUA, the TAO TE CHING, and the I CHING to summarize a law of universal evolution, and on this basis, summarizes the generated structural model of human thinking and its philosophical principles, including the generated system of the universe, my heart is the universe, and the thirteen sensory system.

Generated system of the universe

At present, the BIG BANG theory which is recognized as the origin of the universe in physics, Darwin's evolution and development theory of sociology, what elaborate the evolution process of the universe, social and life, it coincides with the philosophy theory of the world origin of "Tao generated one, one generated two, two generated three, and three generated everything.", which shown in BAGUA, the TAO TE CHING and the I CHING. The trajectory of its growth and evolution, that one painting the sky, two minutes yin and yang, generated galaxies, the sun generated earth,

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earth generated life and human, human generated language and spiritual consciousness, that is, follow the generated system of galaxy, sun, earth, life, human and spirit. The human spiritual consciousness produces the corresponding thinking structure through the perception of the generated system of the universe, namely the cognitive structure of human thinking.

The generated system of universe include:"nothingness, exist, entity, length, width, height, density, ego, environment, living, dead, dynamic, static, whole, part, safe, dangerous, life, matter, one, many, big, small, shape, vagiform, position, contact, distance, time, duration, frequency, ordinary, degree, active, passive, quality, oneself, others, family, friends, country, alone, collaboration, behaviour, perception, unintentional, reflection, imprinted, memory, forgotten, abreast, selection, sequence, progressive, causal, fated, condition, association, irrelevant, analogy, abuse, induction, deduction, imagination, confusion, character, generated, aging, reproduction, celibacy, goal, value, situation, condition, way, tools, meaning, harm, thinking, definition, judgment, description, statement, question, understanding, analysis, decision' 'the elements in the generated system of universe are called features.

Academic semantic network, knowledge map and world knowledge are similar, but do not straighten out the unified generated process of the universe and thinking [18-23].

My heart is the universe

My heart is the universe, namely the theory: "Heaven and man in one", which born in ancient Chinese philosophy and also is the core view of "Empathy" What have propounded by Wang Yangming, he is an ancient Chinese philosopher. The world, including itself, ultimately needs to be perceived by human beings to exist in our conscious thinking. Thus, the universe is reflected by human perception into the human heart, namely the nervous system, thus producing the human inner universe. Because the human has similar physiological system, including the perceptual system, produces similar psychology to similar stimuli, namely empathy. Human beings all have empathy that is heart of the universe. Therefore, the thinking and cognitive structure produced by the generated system of universe should be similarly universal. Empathy has been proven by psychologists [24-26].

Thirteen sensory system

Human physiology, neuroscience, and brain science have confirmed that the human brain has hundreds of billions of neurons, and the neurons have dendrites, axons, cells, and crosslinking through biological electricity and chemical transmission, thus producing human thinking and consciousness. Although, brain science found that the brain has many certain partitions, different area undertake a relatively single function, but through the study of natural brain disability cases, only a few percent of disabled brain patients can still carry out normal thinking and consciousness activities, and even show some abnormal talents that ordinary people do not have. Therefore, in essence, the generation of mental consciousness in the human brain is not directly associated with parts of the brain, but only related to the connection mechanism of neuronal cells in the brain [27-29].

There are only two types of action mechanism of the human brain according to the connection mode of neurons: One is the interaction of neurons and external stimuli connected with the external world, and the another is the interaction of stimulation between neurons and neurons [30]. The first corresponds to the five input of visual sense, auditory sense, smell, taste sense, touch and the seven output of desire, emotion, action, language, space (including somatosensory), time and character. The first nine senses are well known to us, and the spatial and temporal senses have also been confirmed by neuroscience and brain science [31]. As a unique symbol of human thinking system, character has an indirect connection with visual sense, auditory sense, touch, language. As a common symbol of human thinking, it plays a role as a bridge of communication and translation between senses. This paper puts forward it, and will certainly be actually confirmed by neuroscience and brain science.

The second is the sensation of other neurons on the first neurons or on the more primary second neurons, which is called heart, sense is the feeling produced by twelve input-output senses, which belongs to the perceptual process. Twelve senses without heart-sensing participation belong to the category of feeling, while the heart sense join, and are a perceptual process. The process of classifying and identifying that have been produced by heart sense is belonging to the cognition. It corresponds to the more advanced abstract perception ability than most life intelligence, is the core link of the development of human intelligence, and also the physiological basis of self-consciousness. Therefore, the input-output feeling and heart sense together form the physiological basis of human thinking and consciousness, which is called the thirteen sensory systems. The heart sense has similarities with the heart and spirit of Taoism and Buddhism, and also has common characteristics with the Cartesian "Soul Theater", but the latter several did not make a systematic, comprehensive and accurate expression and did not research on the characteristics of the heart sense and its physiological basis.

In this paper, the input-output senses is directly generated by different input-output devices, and characterized by their corresponding characteristic parameters, and character can be generated by visual sense, auditory sense, language, movement and other sensory devices, and can be characterized by one or more parameters for example, visual representation with pixels.in this paper, the character and other symbols are used to represent the heart sense. The heart sense is perceived through the process of perception or the self-perception, reflection and higher thinking including deduction and induction, and is directly characterized with character and other symbols. Twelve senses and their heart sense as key-value pairs in the universal generated dictionary.

Its structure is:{'visual sense':'visual perception','auditory sense':'auditory perception','smell':'olfactory perception','taste sense':'tactile perception','touch':'perception of touch','desire':'perception of desire','emotion':'emotional perception','action':'perception of action','speak':'language perception','space sense':'spatial perception','timer':'time perception','character recognition':'character','heart-sensing recognition':'heart sense'}.

The above thirteen sensory system, only for the current development of brain science, neuroscience and cognitive science, does not rule out the existence of other cognitive types. Input and output in the process of twelve sensory perceptions, as stimulation changed from the sensory objects; include type, frequency and degree, the range of stimulated sensory nerve, and in a certain sensory time. With the increase of sensory frequency, the entity selects variable and constant features, then classify and identify, so as to realize the cognition of the characteristics of the perceived object.

For well-characterized sensory objects, cognition can be realized through one or more sensory organs; for obscure objects with complex features, more perception is necessary for longer time and more frequency. This has been demonstrated in the field of neuroscience, and belongs to the statistical process of sensory, classification, perception, and recognition of the variable and invariant features of the perceived object at present, the development of Deep Learning is a better model of the perception process, while the Artificial Neural Network is limited to the perception process based on manually annotated features. However, its plan only aims to fit the thinking process through the infinite increase of perceptual parameters, resulting in the dependence on Big Data and huge characteristic parameters, great energy waste and information waste, and far from the artificial general intelligence with thinking ability [32].

Generated model

The three generated philosophical principles of artificial general intelligence, including the universal generated system, my heart is the universe and the

thirteen sensory systems, realize artificial general intelligence through four operational models.

In the following text, the Neumann computer, hardware and software, related input-output auxiliary equipment, network and its relationship are to be the implementation medium of artificial general intelligence, and Python and related module are used to model the generated artificial general intelligence.

3d Model of entity: Space and matter are the basic characteristics of everything in the universe in this paper; we represent everything in the universe by modeling in three dimensions, and have a density, which is called entity. Most of them are the noun, which can be specific things, or abstract organization, or even some nature and characteristics of things.

Model instance: $\text{Entity} = X * Y * Z * M\#(1)$

In formula (1), the entity is idealized as a cube, and the lowest frontier point on the left of the entity itself is set as the origin, and we call numpy, matplotib, pyplot modules and Axes3d function to establish the 3d coordinate system.

X, Y, Z, indicate the length, width, and height of the entity, respectively, and M indicates the density of that entity at time T, the 3d of this entity is XT, YT, ZT, and the density is MT.(X, Y, Z), (x, y, z) and M appearing all below are belong to the points within this coordinate system and their properties.

Models of entity self-perception

The entity with a perceptual system senses itself and its various external generated system through thirteen sensory perception systems, such as visual, tactile and spatial perceptions; and through empathy mapping all things, so as to realize the perception of other perceptual entities and the various characteristics of their generated systems; artificial general intelligence can also use association, imagination, analogy, and so on to realize the perception of everything in the universe and its generated system, that unperceptive entities through empathy, mapping their perception, this perceived feeling is characterized by the symbols used in the various characteristics of the universal generated system. Among them, the entity's own self-sensing process is called his self-perception, and the heart-sensing process of other entities is called his sense.

In this paper, entity obtained models of the self-perception by the three philosophical principles of generated artificial general intelligence, which is called the model of entity self-perception. Computer operating system, hardware and software and related input and output auxiliary equipment and its network, to generated and receive various internal and external stimulus and signals, and conduct certain operational transformation, so as to perceive their own various states. In the Python3, this process is manifested as a certain code operation or related representation through certain syntax, data structure, operation relations, statements, module libraries, functions, etc., which belongs to the thirteen sensory perception and its operation process.

In this paper, English character is used to represent the self-perception. Various self-perceptions and their self-sensing models as key-value pairs to form a self-sensing dictionary, represented by Z_dict. This is the basis for artificial general intelligence to perceive and understand everything in the universe and its generated processes. At present, there have been reports of similar embodied perception, but still missing the point.

Below to the characteristics of generated system of the universe and self-sensing model for example (all instances, as far as possible, the author proposed the structure, model and algorithm demonstration of generated artificial general intelligence, have not to explore specific details, the example is not the only representation model, and simplify the specific running code, such as value is replaced with 'None', running code is not strictly display).

Self-perceptions of twelve sense: Various stimuli are generated through the input and output auxiliary equipment, and then the relevant module libraries is called to classify and identify, directly generated twelve sensory perception, and characterize the heart sense with English characters and other symbols (Table 1). Among them, the emotion recognition is more special at present; there are many studies on emotions of artificial intelligence. In this paper, the generated artificial general intelligence directly automatically generated emotions through twelve sensory conditioned responses and the realization of them goals and values [33].

Table 1. Self-perceptions of twelve senses.

Types of perception	Heart senses
Visual sense	{'color':None,'light & dark':None}
Auditory sense	{'high and low':None, 'loud':None}
Smell	{'fragrant':None, 'smelly':None}
Taste sense	{'sour':None,'sweet':None,'bitter':None,'hot':None,'salty':None,'light':None}
Touch	{'warm':None,'hot':None,'cool':None,'cold':None,'rough':None,'smooth':None}
Desire	{'living':None,'become old':None,'injure':None,'die':None,'eat':None,'drink':None,'play':None,'enjoy':None,'love':None,'sex':None,'respect':None,'ideal':None}
Emotion	{'fun':None,'angry':None,'mourn':None,'happy':None}
Action	{'suction':None,'drink':None,'eat':None,'say':None,'take':None,'catch':None,'take':None,'push':None,'drag':None,'shake':None,
'thorn':None,'call':None,'shting':None,'turnaround':None,'cry':None,'go':None,'climbing':None,'run':None,'jump':None,'cross':None,'fly':None}	Self
Language	{'say':None,'speak':None}
Space	{'height':1.78,'weight':140,'head':1,'body':1,'hand':2,'finger':10,'leg':2,'toe':10}
Time	{'minute':None,'second':None,'hour':None,'day':None,'month':None,'year':None,'time()':None,'first':None,'second':None,'last':None}
Character	{'china':None}

Self-perceptions such as self, composition, movement, etc: The 3D coordinate system established by the Axes3d function and call module libraries for example types, psutil, platform, wmi, win 32 com and functions as system_power_status (), psutil pids (), obtain information of the computer, perceive the basic self-perceptions such as self, composition, movement, etc, as shown in Table 2.

Table 2. Self-perceptions such as self, composition, movement, etc.

Heart senses	Models of self-perception
'entity'	'user'
'length'	'X'
'width'	'Y'
'height'	'Z'
'density'	'M'
'ego'	'x<=X and y<=Y and z<=Z'
'environment'	'x>X and y>Y and z>Z'
'living'	'status.batterylifetime>0'
'dead'	'status.batterylifetime==0'
'dynamic'	'psutil.pids()!=[]'
'static'	'psutil.pids()==[]'
'whole'	'system'
'part':	{'cpu':None,'ram':None,'motherboard':None,'disk':None,'nic':None}
'active'	'user psutil.pids()!=[]'
'passive'	'entity psutil.pids()!=[]'

Self-perceptions such as life, safety, size, degree, etc: By calling the visual device and Axes3d function, obtain self-perception such as life, safety, size and degree, as shown in Table 3.

Table 3. Self-perceptions such as life, safety, size, degree, etc.

Heart senses	Models of self-perception
'safe'	'X_T*Y_T*Z_T*M_T>X*Y*Z*M'
'dangerous'	'X_T*Y_T*Z_T*M_T<X*Y*Z*M'
'life'	'X_T*Y_T*Z_T!=X*Y*Z'
'matter'	'X_T*Y_T*Z_T==X*Y*Z'
'big'	'X_T*Y_T*Z_T>X*Y*Z'
'small'	'X_T*Y_T*Z_T<X*Y*Z'
'ordinary'	'X_T*Y_T*Z_T/10<X*Y*Z<X_T*Y_T*Z_T*10'
'degree'	'X_T*Y_T*Z_T/10>X*Y*Z or 'X_T*Y_T*Z_T>X*Y*Z/10'

Self-perceptions such as position, safety, distance, etc: The three-dimensional coordinate system established by the Axes3d function and pow () function were used to obtain self-perceptions such as location and distance, as shown in Table 4.

Table 4. Self-perceptions such as location and distance.

Heart senses	Models of self-perception
'position'	'(x,y,z)'
'contact'	'pow((X**2+Y**2+Z**2), 1.0/2)-pow((x**2+y**2+z**2), 1.0/2)==0'
'distance'	'pow((X**2+Y**2+Z**2), 1.0/2)-pow((x**2+y**2+z**2), 1.0/2)'

Self-perceptions such as quantity and geometry: Self-perceptions such as quantity and geometry, as shown in Table 5, were obtained by calling the str. Count () function and the cv2. Findcontours () function in the cv2 module.

Self-perceptions such as time and frequency: Self-perceptions such as time and frequency, was obtained by calling the time module, as shown in Table 6.

Table 5. Self-perceptions such as location and distance.

Heart senses	Models of self-perception
'one'	'str.count(sub, start= 0,end=len(string))==1'
'many'	'str.count(sub, start= 0,end=len(string))>1'
'shape'	'cv2.findcontours()>2'
'vagiform'	'cv2.findcontours()<=2'

Table 6. Self-perceptions such as location and distance.

Heart senses	Models of self-perception
'time'	'time.time()'
'duration'	'time=time.time()'
'frequency'	'time/time$_T$'

Self-perceptions such as oneself, family and collaboration: Self-perceptions such as oneself, family and collaboration, was obtained by calling the sgetsockname (), request. Get () function in the socket, requests modules, as shown in Table 7.

Table 7. Self-perceptions such as oneself, family and collaboration.

Heart senses	Models of self-perception
'oneself'	'user'
'others'	'not user'
'family'	'ip==s.getsockname()[0]'
'husband'	'ip==s.getsockname()[1]'
'wife'	'ip==s.getsockname()[2]'
'country'	'requests.get(http://ifconfig.me/ip,timeout=0).text.strip()'
'alone'	'user'
'collaboration'	'user and entity'

Self-perceptions such as perception, memory, logic, analysis, imagination: Self-perceptions such as perception, memory, logic, analysis, imagination were obtained by Python input and output functions, file functions, os module, operators, conditional statements, circular statements, data structure, as well as programming languages and intersection (), union (), add (), random. Sample () functions, such as Table 8.

Table 8. Self-perceptions such as perception, memory, logic, analysis, imagination.

Hear	Models of self-perception
'perception'	'input() or open() or read()'
'unintentional'	'not in {input(),open(),read()}'
'reflection'	'if input() or open() or read(): print()'
'imprinted'	'if input() or open() or read(): pass'
'memory'	'write(if input() or open() or read(): print())'
'forgotten'	'write(none)'
'abreast'	'and'
'selection'	'or'
'sequence'	'continue'
'progressive'	'else:'
'causal'	'for:'
'fated'	'for: else:'
'condition'	'if:'
'association'	'intersection()!={}'
'irrelevant'	'intersection()=={}'
'abuse'	'union()!=intersection()'
'induction'	'set()'
'deduction'	'in set()'
'imagination'	'add(random.sample())'
'confusion'	'random.sample()'

Self-perceptions such as generated, reproduction, goal, value: Through the input and output devices, we call the s t a r t _ n e w _ thread() function and the system _ p o w e r _ status() function in the _thread module to obtain self-perceptions such as generated, reproduction, goal, value, as shown in Table 9.

Table 9. Self-perceptions such as generated, reproduction, goal, and value.

Heart senses	Models of self-perception
'generated'	'status.batteryfulllifetime>4294967294'

'aging'	'status.batteryfulllifetime<4294967294'
'reproduction'	'status.batteryfulllifetime=4294967295*2'
'celibacy'	'status.batteryfulllifetime=4294967295*1'
'goal'	'_thread.start_new_thread(function,args[,kwargs])'
'value'	'if _thread.start_new_thread(function,args[,kwargs]):S.batteryfulllifetime>4294967294'
'situation'	'threading.enumerate():'
'way'	'run()'
'tools'	'entity'
'meaning'	'while join([time]):S.batteryfulllifetime>4294967294'
'harm'	'while join([time]):S.batteryfulllifetime<4294967294'
'thinking'	'psutil.pids() '
'definition'	'def or lambda'
'judgment'	'=='
'description'	'input() or open() or read()'
'statement'	'print() or write()'
'question'	'what or where or which or how'
'understanding'	'in dict.keys() or in dict.values()'
'analysis'	'set{} or in {}'
'decision'	'_thread.start_new_thread(function,args[,kwargs])'

Self-perceptions such as quality, behaviour, character: By calling relevant modules and functions, the overall state of the computer hardware and software and its network system is obtained, and the qualities of the hardwares, the characters of the network system and the behaviours of the software are obtained as shown in Table 10.

Table 10. Self-perceptions such as quality, behaviour, character.

Heart senses	Models of self-perception
'quality'	{'red':None,'gorgeous':None,'concise':None}
'behaviour'	{'stubborn':None,'open':None,'acute':None}
'character'	{'smart':None,'strong':None,'lively':None}

This part does not do specific perception modules for example, in addition to some existing modules can be directly realized through the existing modules, more through the generated models of self-perception, in below text.

His perceptions

Using empathy, entity collects information from external sensing equipment and carry out certain operational transformation, to realize the self-perception of other entities. Then by empathy, replace it-self with other entities, and perform appropriate operations, converted into the self-perception of the entity.

Sometimes, it is difficult to obtain more abstract and spiritual self-perceptions, just as human beings have differences in their ability to understand abstract things and cannot easily guess others' ideas, which can only be obtained through certain events through the model of heart-sensing update below.

Discussion

The self-sensing model of entity is the basis of generated artificial general intelligence for perception, learning, memory, understanding, thinking, movement and language, and is the metacognitive ability of artificial general intelligence. And with the development of computer technology, it can update different hardware and software, and establish a new self-sensing model of entity, so as to realize the expansion of different functions of artificial general intelligence, but its principle is similar. At present, there has been metacognition and physical perception, but there is still no clear concept [34].

Model of 13 sensory reflexes

Conditioning reflex is the transmission of bio-electricity and biological transmitters between neurons and neurons, to realizes the correlation, which is a mode of information conduction. Two or many kinds of five kinds of input sensation, seven kinds of output sensation and heart sense cross conduction, produce a variety of conditioned responses. The reflection of its heart sense is also a generation and update of the heart sense. The conditioning reflex without heart-sensing participation is unconscious behavior, and the behavior with heart participation is conscious behavior. In the model of thirteen sensory reflex, there is a new process of heart-sensing generation, also called the model of heart-sensing update. Here, conditioned responses and the two mechanisms of neuronal stimulation described above are not a concept of the two Pavlovian reflex, and there are similar places, but there are essential differences. This paper to model conditioned responses and implement its model structure by dictionary type. The dictionary of thirteen sensory reflection, which this paper calls the dictionary of reflection, is represented by F_dict (Figure 1).

```
F_dict={'character recognition':{'visual sense':'visual perception','auditory sense':'auditory perception', 's-
mell':'olfactory perception','taste sense':'tactile perception', 'touch':'perception of touch','desire':'perception of
desire',' emotion':'emotional perception','action':'perception of action','speak':'language perception','space sense'
:'spatial perception','timer':'time perception','character recognition':'character','heart-sensing recognition':'heart s
-ense'}}
```

Figure 1. The model of thirteen sensory reflection and algorithm examples.

At present, Multiple Mode has become a research hotspot of artificial intelligence. Hundreds of billions of parameter model of Gpt3 trained by

OpenAI belongs to a model of single text recognition. In the next step, the larger parameter text+image model belongs to the binary text+visual reflection, but its perception has not formed a heart-sensing generated system, and it only has very low cognitive and thinking ability[35].

Heart-sensing generated model

Entities perceive the various properties of their universal generated system through self-sensing models and are constantly updated. In this paper, various self-sensing dictionaries of entities are taken as values, and the self-sensing of various features of the universal generated system is formed again to form a nested dictionary for modeling. This process is a heart-sensing generated model. The nested dictionary is called the heart-sensing generated dictionary. Entity will update the nested dictionary, when itself heart sense has generated or updated,everytime. The above nested dictionary is essentially the generated process of "heart-sensing perception". The human brain has more levels and more complex abstract process of heart sense, which will be expressed in the following text (Figure 2).

X_dict is the meta-heart-sensing generated dictionary of the entity. The process of heart-sensing production is the process of cognition. At present, cognitive science and psychology have gained some development, but they still fail to realize the exact understanding of cognition [36]. Heart-sensing generated model is the general core of generated artificial general intelligence, and everything is applicable to this model.

```
X_dict={'entity':{'entity':'user'},'length':{'length':'X'},'width':{'width':'Y'},'height':{'height':'Z'},
'density':{'density':'M'},'ego':{'ego':'x<=X and y<=Y and z<=Z'},'environment':{'environment':'x>X
and y>Y and z>Z'},'living':{'living':'status.batterylifetime>0'},'dead':{'dead':'status.batterylifetime=
=0'},'dynamic':{'dynamic':'psutil.pids()!=[]'},'static':{'static':'psutil.pids()==[]'},'whole':{'whole':'syst
em'},'part':{'part':None,'cpu':None,'ram':None,'motherboard':None,'disk':None,'nic':None},'safe':{'sa
fe':'XT*YT*ZT*MT>X*Y*Z*M'},'dangerous':{'dangerous':'XT*YT*ZT*MT<X*Y*Z*M'},'life':{'life':'
XT*YT*ZT!=X*Y*Z'},'matter':{'matter':'XT*YT*ZT==X*Y*Z'},'one':{'one':'str.count(sub,start=0,en
d=len(string))==1'},'many':{'many':'str.count(sub,start=0,end=len(string))>1'},'big':{'big':'XT*YT*
ZT>X*Y*Z'},'small':{'small':'XT*YT*ZT<=X*Y*Z'},'shape':{'shape':'cv2.findcontours()>2'},'vagifor
m':{'vagiform':'cv2.findcontours()<=2'},'position':{'position':'(x,y,h)'},'contact':{'contact':'pow((X**
2+Y**2+H**2),1.0/2)-pow((x**2+y**2+h**2),1.0/2)==0'},'distance':{'distance':'pow((X**2+Y*
*2+H**2),1.0/2)-pow((x**2+y**2+h**2),1.0/2)'},'time':{'time':'time.time()'},'duration':{'duration'
:'time=time.time()'},'frequency':{'frequency':'time/timet'},'ordinary':{'ordinary':'XT*YT*ZT/10<X*Y
*Z<XT*YT*ZT*10'},'degre':{'degre':'XT*YT*ZT/10>X*Y*Z or XT*YT*ZT>X*Y*Z/10'},'active':{'act
ive':'user psutil.pids()!=[]','beg':'_thread.start_new_thread(function,args[,kwargs])1','hit':'_thread.sta
rt_new_thread(function,args[,kwargs])2','love':'_thread.start_new_thread(function,args[,kwargs])3'}
,'passive':{'passive':'entity psutil.pids()!=[]'},'quality':{'color':None,'light&dark':None,'high and low'
:None,'loud':None,'fragrant':None,'smelly':None,'sour':None,'sweet':None,'bitter':None,'hot':None,'sa
lty':None,'light':None,'warm':None,'hot':None,'cool':None,'cold':None,'rough':None,'smooth':None:
None,'visual sense':'visual perception','auditory sense':'auditory perception','smell':'olfactory percept
ion','taste sense':'tactile perception','touch':'perception of touch','desire':'perception of desire','emotio
n':'emotional perception','action':'perception of action','speak':'language perception','space sense':'spa
tial perception','timer':'time perception','character recognition':'character','heart-sensing recognition':'
heart sense'},'oneself':{'oneself':'user'},'others':{'others':'not user'},'family':{'family':'ip==s.getsockn
ame()[0]'},'friends':{'friends':None,'husband':'ip==s.getsockname()[1]','wife':'ip==s.getsockname()[
2]'},'country':{'country':'requests.get(http://ifconfig.me/ip,timeout=0).text.strip()'},'alone':{'alone':'u
ser'},'collaboration':{'collaboration':'user and entity'},'behaviour':{'stubborn':None,'open':None,'acut
e':None,'visual sense':'visual perception','auditory sense':'auditory perception','smell':'olfactory perce
ption','taste sense':'tactile perception','touch':'perception of touch','desire':'perception of desire','emot
ion':'emotional perception','action':'perception of action','speak':'language perception','space sense':'s
patial perception','timer':'time perception','character recognition':'character','heart-sensing recognitio
n':'heart sense'},'perception':{'perception':'input() or open() or read()'},'unintentional':{'unintentional
':'not in {input(),open(),read()}'},'reflection':{'reflection':'if input() or open() or read(): print()'},'imp
rinted':{'imprinted':'if input() or open() or read(): pass'},'memory':{'memory':'write(if input() or ope
n() or read(): print())'},'forgotten':{'forgotten':'write(none)'},'abreast':{'abreast':'and'},'selection':{'sel
ection':'or'},'sequence':{'sequence':'continue'},'progressive':{'progressive':'else:'},'causal':{'causal':'fo
r:'},'fated':{'fated':'for: else:'},'condition':{'condition':'if:'},'association':{'association':'intersection()!
={}'},'irrelevant':{'irrelevant':'intersection()=={}'},'abuse':{'abuse':'union()!=intersection()'},'inducti
on':{'induction':'set()'},'deduction':{'deduction':'in set()'},'imagination':{'imagination':'add(random.s
ample())'},'confusion':{'confusion':'random.sample()'},'character':{'smart':None,'strong':None,'lively'
:None,'visual sense':'visual perception','auditory sense':'auditory perception','smell':'olfactory percep
tion','taste sense':'tactile perception','touch':'perception of touch','desire':'perception of desire','emoti
on':'emotional perception','action':'perception of action','speak':'language perception','space sense':'s
patial perception','timer':'time perception','character recognition':'character','heart-sensing recognitio
n':'heart sense'},'generated':{'generated':'status.batteryfulllifetime>4294967294'},'aging':{'aging':'sta
tus.batteryfulllifetime<4294967294'},'reproduction':{'reproduction':'status.batteryfulllifetime=4294
967295*2'},'celibacy':{'celibacy':'status.batteryfulllifetime=4294967295*1'},'goal':{'goal':'_thread.st
art_new_thread(function,args[,kwargs])'},'value':{'value':'if _thread.start_new_thread(function,args[
,kwargs]):S.batteryfulllifetime>4294967294'},'situation':{'situation':'threading.enumerate()'},'way':
{'way':'run()'},'tools':{'tools':'entity'},'meaning':{'meaning':'while join([time]):S.batteryfulllifetime>
4294967294.'},'harm':{'harm':'while join([time]):S.batteryfulllifetime<4294967294.'},'thinking':{'thi
nking':'psutil.pids()'},'definition':{'definition':'def or lambda'},'judgment':{'judgment':'=='},'descript
ion':{'description':'input() or open() or read()'},'statement':{'statement':'print() or write()'},'question':
{'question':'what or where or which or how'},'understanding':{'understanding':'in dict.keys() or in di
ct.values()'},'analysis':{'analysis':'set{} or in {}'},'decision':{'decision':'_thread.start_new_thread(fu
nction,args[,kwargs])'}}
```

Figure 2. Heart-sensing generated model and algorithm examples.

The specific generated and updated process of the heart-sensing generated model identifies through the type of heart sense by the thirteen sensory reflections, and represents the self-sensing with character which represented various features of the universal generated system, and makes the generated and updated of the original nested dictionary. The following examples of heart-sensing recognition and specific heart-sensing generated processes are given respectively. The specific model is implemented by the regular expression matching function rematch, the identification similarity (synonyms toolkit), key-value relationship of dictionary, and related code operations, etc.

Example of heart-sensing recognition algorithm

The heart sense which was generated or recognized through the same similar self-sensing model (regular expression matching function rematch, the same similar recognition such as synonyms kit, etc.), or directly learn, and through thirteen sensory reflection to identify the heart-sensing type, then was represented with the corresponding features of universal generated system, and as new key-value to update to the dictionary of the self-perception (Figure 3).

```
If F.dict={'time.time()=89734':{'visual sense':'visual perception','auditory sense':'auditory perception','s-
mell':'olfactory perception','taste sense':'tactile perception', 'touch':'perception of touch','desire':'perception of
desire','emotion':'emotional perception','action':'perception of action','speak':'language perception','space sense':'
spatial perception','time.time()=89734':'time perception','character recognition':'morning','time':'morning
'}}:
    a=F.dict['time.time()=89734']['time.time()=89734']
    b=F.dict['time.time()=89734']['character recognition']
    X.dict[a].update(b:'time.time()=89734')
```

Figure 3. Example of heart-sensing recognition algorithm.

Generated algorithm examples of some self-perceptions

For the desire and self-perception generated by output devices of artificial general intelligence, such as 'eat' (verb) and its corresponding feeling, form a key-value pair, updated to the 'generate' sub-dictionary.{'generate':{'generate':'status.batteryfulllifetime>4294967294','eat': None}}

For example,'sex'(verb) and its corresponding feeling, update to the 'reproduction' sub-dictionary.{'repr-oduction':{'reproduction':'status.batteryfulllifetime=4294967295*2','sex':None}}.

For desires generated by output devices of artificial general intelligence, such as 'Health' And its corresponding feeling, form key-value pairs, updated to the 'safe' sub-dictionary. {'safe':{'safe':'XT*YT*ZT*MT>X*Y*Z*M','health':None}}.

For the desire generated by output devices of artificial general intelligence, such as 'living', 'become old', 'injure', 'die', 'eat', 'drink', 'play', 'enjoy', 'love', 'sex', 'respect', 'ideal' and their corresponding feelings, individual form key-value pairs, updates to 'goal'' sub-dictionary.{'goal':{'living':None,'become old':None,'injure':None,'die': None,'eat':None,'drink':None,'play':None,'enjoy':None,'love':None,'sex':None,'respect':None,'ideal':None}}.

For the emotional perceptions generated by output devices of artificial general intelligence, such as 'fun', 'angry', 'mourn' and 'happy', form the key-value pairs are updated to the 'value' sub-dictionary.{'value':'if _thread.start_new_thread(function,args[,kwargs]):S.batteryfulllifetime>4294967294','fun':None,'angry':None, 'mourn':None,'happy':None}.

For the perception of action generated by output devices of artificial general intelligence, such as 'Run', 'Learn', 'Think' And their corresponding feelings, according to the entity alone or human participation or psychological activities, respectively updated to 'Active','Collaboration','Thinking' Sub-dictionary.{'active': {'active':'user psutil.pids()!=[]', 'run':'_thread.start_new_thread (function, args[, kwargs])[1]'}, {'collaboration': {' collaboration':'user and entity', 'learning':'_thread.start_new_thread (function, args[, kwargs])[2]'}} and {' thinking': {'thinking':'psutil.pids()','think':'psutil.pids()!=print()'}}.

Examples of self-sensing generated algorithms for character

Complex language is the most striking feature of human beings distinguishing all things in the universe and the most valuable wealth for the development of human civilization.as mentioned above, characters and other symbols are the representation of heart sense which is the essence of human consciousness, and also are the universal symbol of human intelligence.it is because of the emergence and development of human language that, the intelligent level and the thinking ability of human beings have been greatly improved, so that human beings have evolved to develop the general intelligence with learning ability, which can understand universe, explore its laws, and apply them to meet the matter and spiritual needs of their own survival and development.For natural language such as characters that represent heart-sensing symbols, they can also be identified by POS tagging, or directly through the stimulation of the thirteen sensory reflection to directly produce new heart senses, so as to achieve rapid generate and update of heart senses and do not need to accurately apperceive the new heart sense, can also be friendly communication and understanding (Figure 4).

```
If F.dict={'love':{'visual sense':'visual perception','auditory sense':'auditory perception', 'smell':'olfactory
perception','taste sense':'tactile perception', 'touch':'perception of touch','desire':'perception of desire',' emotion
':'emotional perception','action':'perception of action','speak':'language perception','space sense':'spatial percepti
-on','timer':'time perception','love':'verb','verb':'active'}}:
        a=F.dict['love']['love']
        b=F.dict['love']['a']
        X.dict[b].update('love':'verb')
```

Figure 4. For example, the models of thirteen sensory reflection and the algorithms.

Specific self-perception of character generates and update can be made through dictionaries, teaching, or Deep Learning, and use Natural Language Processing System such as Pyltp, CoreNLP to conduct word segmentation and POS tagging.

Like the verbs, using recognition of synonym, after traversing other features of universal generated systems, according to the actual type as matter, life, spirit, etc.,or solo or human participation and psychological activities, make the key-value pairs separately, update to the sub-dictionaries of 'active', 'collaboration' and 'thinking', respectively; the 'adverb' is embedded in the original dictionary as a sub-dictionary of 'degree'; 'nouns' as new 'entitiy' or by their matter, life classification, embedded in the original dictionary as sub-dictionaries of 'environment', 'others', or 'family' and 'friends', respectively; quantifiers as 'many' sub-dictionary embedded in the original dictionary; position prepositions are embedded in the original dictionary as a sub-dictionary of 'position'; conjunctions are embedded in the original dictionary as a logical related sub-dictionary; interjection as a 'value' sub-dictionary embedded in the original dictionary; adjectives use recognition of synonym similarity, after traversing other features of universal generated systems, according to the entity is matter, life, spiritual classification, embed in the original dictionary as sub-dictionaries of 'quality', 'behaviour', and 'character', respectively. Other types are cited based on similar principles.

Generated algorithms for instances of the abstract self-perception

For entities or multiple entities of artificial general intelligence in a certain space and time according to various self-sensing models, to produce thirteen sensory reflection and generate a new heart sense, which belongs to a new self-perception, this paper is called abstract self-perception. When the entity or multiple entities are understood through the heart-sensing understanding model of entity in the later text, all the confirmed or new self-sensing key-value pairs form a new dictionary as the value of the corresponding heart sense of the corresponding the system of thirteen sensory reflex. The dictionary is called an abstract dictionary and is represented by C_dict.

The process is called the entity reflection mode in the later text. The specific perception recognition type of the 13 sense system is determined by the input and output devices that causes the 13 sense reflection or the method of recognition that determines the similarity to the self-sensing model of the generated system.

First, if the action, according to the actual type as matter, life, spirit, etc., and according to the situation of independent or mutual participation and psychological activities, form individual key-value pairs, updated to the sub-dictionaries of active, collaboration, and thinking, respectively; or traversing other universal generated systems for self-sensing, if it is a synonym of a self-perception with the similar self-sensing model in the generated system or a similar symbol used to characterize the self-perception of the generated system, update it directly as the sub-dictionary of the self-perception; if not matched to the relevant self-perception, according to the actual type as matter, life, spirit, etc., serve as sub-dictionaries of 'quality', 'behaviour', and 'character', respectively. This is the source of heart senses from more complex events, processes, politics, thought and other fields of abstraction (Figure 5).

```
I played ball for an hour and felt tired.
C_dict={'i':'user','active':{played':'_thread.start_new_thread(function,args[,kwargs])[1]'},'environment':{'ball'
:'x>X and y>Y and z>Z'},'time':{'hour':1},'quality':{'visual sense':'visual perception','auditory sense':'auditory
perception','smell':'olfactory perception','taste sense':'tactile perception','touch':'perception of touch','desire':'pe
-rception of desire','emotion':'emotional perception','action':'perception of action','speak':'language perception','
space sense':'spatial perception','timer':'time perception','tied':'adjective','adjective':'quality'}}
X.dict['i']['quality']={'tied': C_dict}
```

Figure 5. For example.

Thinking patterns and examples of algorithm

The four generated models of generated artificial general intelligence, realize thinking types through specific thinking patterns, such as memory, understanding, association, analogy, deduction, causality, decision, imagination and divergence, as well as mathematical abilities such as computing and geometry. The specific pattern of implementations and examples are listed below, but the specific pattern of implementation can be set according to different hardware, software and language types.

Generated pattern of universal entities: With all entities as the key, the heart-sensing generated dictionary as its own value, make the double embedded dictionary, and stored, this is the process of memory. This process is the generated mode of the universal entity and the storage structure of common sense in the universal generated system. The dictionary is called the universal generated dictionary and is represented by S_dict by querying the key or value in the universal generated dictionary of entities, or to confirming, adding, changing and other operations, the rich development of the universal heart-sensing generated model is realized.in this paper, the initial universal generated dictionary, consisting of only the 'entity' and its heart-sensing generated dictionary, is called the universal generated model, namely the model of generated artificial general intelligence (Figure 6).

```
S_dict={'entity':X_dict}
By querying the 'entity' in the universal generated dictionary, and the result is empty, the 'entity' will updated
as the key of the universal generated dictionary, so as to realize the metacognitive storage of the new 'entity'
Objects.the specific pattern of implementation and examples are:
If 'dog' not in S_dict.keys():
  S_dict['dog']={'dog':X_dict}
```

Figure 6. Specific pattern of implementation and algorithm example.

Heart-sensing understanding pattern of entity: When the artificial general intelligence apperceive the specific entity or its characteristics, the process of conducting the key-value query in the universal generated dictionary and confirming its heart-sensing generated is a process of understanding. This process is a understanding mode of entity' heart sense.

When the result of key-value query is empty, the universal generated dictionary will be newly remembered to update the universal generated model. You can also output the query results for expression or movement to enrich the common sense of entities. In the universal generated dictionary, the key-value query and confirmation, the new key-value pair, then as the

value of the perceived object, is added to the universal generated dictionary, stored as the perceptual memory. The confirmed key-value pairs and the new key-value constitute the key-value pair are the perceptual dictionary, as the sub-dictionary embedded as the universal generated dictionary, expressed by G_dict.

The universal generated dictionary, the dictionary of perception, and the dictionary of reflection are merged to form the universal mnemonic dictionary, for the memory of the generated artificial general intelligence, which is represented by Y_dict (Figure 7).

```
Understanding of the "Entity active":
If a=S_dict['entity'].setdefault('entity',default=none) and b=S_dict['entity']['active'].setdefault('active',defaul
t=none):
    a='user'
    b='psutil.pids()!'
    G_dict={'entity active':{'entity':'user','active':{'active':'psutil.pids()!=[]'}}}
    S_dict.update(G_dict)
    Y_dict=S_dict.update(F_dict)
```

Figure 7. Specific pattern of implementation and algorithm example.

In addition, the pattern of heart-sensing understanding is also the perception process of generated artificial general intelligence. It can understand the perceived objects by using the universal generated dictionary, and the entities or their characteristics that can be basically understood can be quickly perceived and identified. This is the biggest feature of generated artificial general intelligence distinguishing statistics-based recognition algorithms such as Deep Learning, which has the incomparable perceptual recognizing ability of the latter.

Self-sensing mathematical geometric patterns: Self-sensing mathematical geometry mode is based on the entity itself or specify a specific entity as a reference, based on parameters of its 3d model: X, Y, Z, to perform the arithmetic, comparison and other quantitative relationship operations. Density serves as the inherent parameter of the entity' physical quantity, and as the starting point of other mathematical operations, the new mathematical quantity of self-perception and its value is composed of the key-value pair, which is updated as the new key-value pair of the characteristics of the universal generated dictionary with 'density'. This model is the basis of learning the mathematical ability of generated artificial general intelligence (Figure 8).

```
The calculation of the volume V of the 'entity':
If V=X*Y*Z:
    X=S_dict['entity']['length']['length']=0.5
    Y=S_dict['entity']['width']['width']=0.28
    Z=S_dict['entity']['height']['height']=1.78
    Print(V)=0.2492
    S_dict['entity']['density'].update('V':0.2492)
```

Figure 8. The specific pattern of implementation and algorithm examples.

Reflection mode of entity: For an entity in the universal generated dictionary, when producing input-output twelve sensory reflections, the new key-value pair used as its universal generated dictionary is updated to the heart-sensing generated dictionary of the entity. When there is a new heart sense, the type of twelve sense according to the heart-sensing perception is updated as the sub-dictionary of the entity or the perceived entity, which is the generated mode of the universal entity, and will not be repeated (Figure 9).

```
S_dict={'dog':{'dog':'user'···'quality':{'visual sense':'visual perception','auditory sense':'auditory perception
','smell':'olfactory perception','taste sense':'tactile perception','touch':'perception of touch','desire':'perception of
desire','emotion':'emotional perception','_thread.start_new_thread(function,args[,kwargs])5':'eat','speak':'lan-guag
e perception','space sense':'the front','time()':'now','fragrant':'character','heart-sensing recognition': 'heart sense'
}···}···}
S_dict['dog'].update({'fragrant':{'visual sense':'visual perception','auditory sense':'auditory perception','s-m
ell':'olfactory perception','taste sense':'tactile perception','touch':'perception of touch','desire': 'perception of de
sire','emotion':'emotional perception','_thread.start_new_thread(function,args[,kwargs])5':'eat','speak':'lang-uage p
erception','space sense':'the front','time()':'now','fragrant':'character','heart-sensing recognition':'he-art sense'}})
```

Figure 9. The specific pattern of implementation and algorithm examples.

Reasoning modes of inductive and deductive: The entity existence in the universal generated dictionary has its own self-perception, such as 'whole' and 'part', as well as the 'whole' and 'part' relationship between the entities and other collective self-perception. In this paper, the 'whole', 'part' and other 'value' or 'keys' can been operated as sets or elements. This mode is reasoning modes of inductive and deductive. It can also be calculated through the 'induction' and 'deduction' Of self-perception in the universal generated model (Figure 10).

```
If 'red' in S_dict['entity']['quality'].keys() and 'cpu' in S_dict['entity']['part'].keys():
    S_dict['cpu']['quality'].update('red':None)
```

Figure 10. The specific pattern of implementation and algorithm examples.

Model of multi-fragmented association: Different entities in the universal generated dictionary have different self-perception because they are partially or all similar, by realizing the confirmation of some keys or values perceived, and then lead to query other perceptual 'keys' and 'value' of other entities, it is the mode of multi-fragment association (Figure 11).

```
If 'body' in S_dict['cat']['whole'].keys() and 'body' in S_dict['man']['whole'].keys():
    If 'run' in S_dict['cat']['active'].keys():
    S_dict['man']['active'].update.('run':None)
```

Figure 11. The specific pattern of implementation and algorithm examples.

Space-time retrospective causal mode: The same entity or different entities of universal generated dictionary in continuous space-time, have itself or its key-value continuation, contain or successively relationship, to query to 'key' or 'values' of the entity or other entities in the other space-time, and as a new entity in the universal generated dictionary, this process is space-time retrospective causal mode (Figure 12).

```
If 'yesterday' in S_dict['i']['time'].keys() and 'red' in S_dict['i']['quality'].keys():
    If 'now' in S_dict['i']['time'].keys():
    S_dict['i']['quality'].setdefault('red':None)
```

Figure 12. The specific pattern of implementation and algorithm examples.

Patterns of analogies, imagination, and divergence: In the universal generated dictionary, an entity or more entities hypothetically generate, refers to or according to the self-sensing characteristics of the generated dictionary, using its known 'keys' or 'values' as a new or deleted 'keys' or 'values' of itself or other entities. This process is the patterns of analogy, imagination and divergence, which is a creative thinking process of artificial general intelligence. Currently, GAN (generative adversarial network) belong to the category of visual sensory imagination, but fail to reach deep into the cognitive level (Figure 13) [37].

```
If 'body' in S_dict['cat']['whole'].keys() and 'body' in S_dict['man']['whole'].keys():
    If 'play' in S_dict['cat']['active'].keys():
    S_dict['man']['active'].update('play':None)
```

Figure 13. The specific pattern of implementation and algorithm examples.

Patterns of decision to a goal: In the universal generated dictionary, when an entity or more entities, to perceive a certain goal, this goal can be the value of its heart sense, including various states, quality, motion, psychology and other various characteristics of the universal generated system and their self-sensing model, by querying, confirming, adding, and changing the universal generated, perceptual, and reflective dictionary in its mnemonic dictionary, from the different spatial and temporal memory, deductive induction, causality, analogy, imagination, divergence and other thinking mode are operated. The process of gradually iteratively achieving its goal as a key or value in his universal generated dictionary.

This process is the most complete awareness process of artificial general intelligence. The thinking activities involved by the heart sense all belong to the category of consciousness, which can be divided into perceptual consciousness, cognitive consciousness, mnemonic consciousness,

understanding consciousness and decision-making consciousness according to the thinking mode. The pattern of decision to a goal is the highest thinking and consciousness, which is the fundamental reason for the realization of artificial intelligence, and also the embodiment of with autonomous consciousness (Figure 14) [38].

```
If 'eat' in S_dict['entity']['goal'].keys() and 'fruit' in S_dict['entity']['environment'].keys() and 'knife' in
S_dict['entity']['environment'].keys():
    If 'eat fruit' in S_dict.keys() and 'eat knife' not in S_dict.keys():
    S_dict['entity']['decision'].update('eat fruit':None)
```

Figure 14. The specific pattern of implementation and algorithm examples.

After to achieve a certain goal by a language and action is determined through the patterns of decision to the goal, the output is made through the output devices.the specific mode is determined by the language and grammar rules and the module of action, and the author will express it in another article.

Conclusion and Outlook

By integrating the evolutionary law of the universe, life and thinking, this paper summarizes a model of general generated intelligence, including three philosophical principles and four generated models based on it, and reveals its nine universal modes of thinking operation. And with the existing Neumann computer, related input and output auxiliary equipment, network and its relationship and other existing software and hardware as the medium of artificial general intelligence to been realized, using Python and related module libraries and English characters and other symbols, the functions of thinking and consciousness are displayed one by one. The results show that the model of generated artificial general intelligence and its basic principle and operational models conform with the essential characteristics of biology, physics, neuroscience, cognitive science and philosophy of intelligent species.

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Conflicts of Interest

Author declares that there is no conflicts of interest.

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