

Conscious “immortal biomimetic humanoids/humans” communities and societies of the future

Abstract

The ultimate goal of the present paper is to expand the ideas presented in reference¹ and describe possible, realistic (no science fiction) amazing future communities and societies that human conscious biomimetic humanoids and humans together will create, enabling a wonderful future for Earth, Earth's Moon, Venus, Mars, Humanity, Solar System planets and moons, and the Universe.

Keywords: biomimetic conscious humanoids, AVI human consciousness, immortality of humanoid robots, digital brains

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Introduction/State of the Art

Here, by biomimetic, it is meant that the humanoid robots will wear efficient and smart outfits made with intelligent, smart, and stimuli-responsive materials and medical-grade silicone fabric, enabling them to be touched and contacted in a soft manner, more and more resembling a human being.

The outfit should be cleanable, depending on its material. Of course, there is no underwear because the biomimetic humanoid robots are driven electromagnetically, with actuators and sensors designed to withstand even the harshest climates.

The surface masks are also of the same smart intelligent materials, as will be covered in this paper. The surface masks are supposed to create surface expressions and configurations very much like those of normal human beings.

Note that, consciousness of the human master owner is cognitive/mind-uploaded and digitally transferred advanced software to a humanoid robot (assigned identity, vita, education, training, life story, life memories & name, IVA-Consciousness,¹ by instructing it initially the identity and name of a human master owner and it belongs to a human master with a certain vita, life story, and life memories to share with the conscious biomimetic humanoid robots.

The state of the art for conscious biomimetic humanoid robots is that they can live forever, and they will be immortal, and do not need any air to breathe, water to drink, or food to eat, and do not generate any waste either, and will not require a salary, vacation, or break.

Preface

This paper is a summary of a larger book entitled: Conscious “Biomimetic Humanoids and Humans”¹ Societies of the Future.² Also refers to an introductory book entitled “Biomimetic Humanoid Robots with Human Consciousness”¹ recently written by this author and published by Jenny Stanford Publishing in 2026:

Methodology

Note that the IVA-Conscious biomimetic humanoid robots may annually need to be inspected, maintained, and repaired (if needed).

Thus, a budget for annual maintenance and repairs is needed to ensure that the system's software, microstructure, and all microprocessors and electromagnetics in sensors and actuators

function correctly. The electromagnto sensor systems for the humanoid robots is actually a network similar o human nervous system in terms of sensory and motor neurons network.

Humanoid robots can thus travel in space and live on Earth, Earth's Moon, Venus, or Mars as aliens from Earth. Let us assume, for example, that a generic human is Captain James T. Kirk, commander of the Starship USS Enterprise, a space exploration vessel built by the United Federation of Planets in the 23rd century.² Thus, Kirk's biomimetic humanoid robot will be called James T. Kirk-humanoid. Humanity and life can survive immortally by creating biomimetic humanoid robots by and from human master.

The humanoid robot will have a consciousness similar to the human master, who would guide and teach (cognitively or digitally) its look-alike humanoid robot as companion and further digitally learn everything about the consciousness of the human master, his life story, and vita to realize that it is a humanoid of a master human.

The biomimetic humanoid robot will live with the human master for a number of years, if possible, and gradually learn a great deal about the human master's consciousness.

Once the human master and owner life is nearing its end (old age or illness), the humanoid will take over and can survive as long as it has the needed energy from long-lasting diamond batteries,¹ which can power it for decades.

Big Question: In these new societies, when discussing laws, rules, and regulations, one must answer whether a conscious, biomimetic humanoid robot with a human master's AVI-consciousness can legally represent the master human after the master has left life.

These facts also apply to humanoids' families, as described later in this paper. As described in [1], these humanoid robots can perform amazingly well on Earth and other planets, providing valuable resources for Earth and humanity.

These humanoids can definitely benefit from the quantum entanglement phenomenon and AI to instantly travel to other space destinations and be present there and here.

Humanoid robots with human consciousness (AVI-Consciousness) all look alike to their human master-owners and can be far more intelligent and knowledgeable than their human masters.

Note that the conscious biomimetic humanoid robots do not forget anything. They can speak multiple languages, play various musical

instruments, recognize features and hidden body and facial signatures, and possess many other actuation and sensing strengths (Figure 1).



Figure 1 Possible participation of conscious humanoids in medical coverage in the societies of the future.

They can be larger, smaller, or just human-sized (Figure 2). They can be quite giant biomimetic humanoids, if needed.



Figure 2 Large and small biomimetic humanoids and humans.

They can have multiple hands, fingers, and legs, and may have universal joints that allow their bodies to turn at the waist or neck in any direction and to turn back, as described in this paper (Figures 3(a,b)).

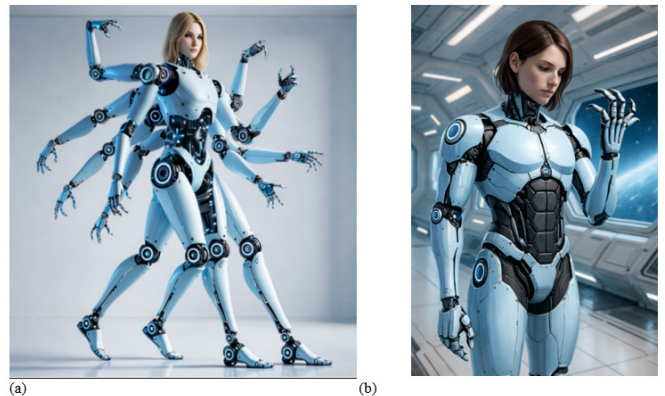


Figure 3(a,b) Multiple hands, legs, and flexible fingers for biomimetic humanoids.

The biomimetic humanoid robots in Figures 3(a,b) display and amazing additional capabilities obtained by creating biomimetic conscious humanoid robots.

In future societies, there will also be many meetings between conscious, biomimetic humanoid robots and humans to decide on a course of action with AI assistance as shown in Figure 4.

Note in Figure 4 that there are only 2 cups of coffee on the table. The reason is that the two humanoid robots in the Figure 4 do not drink coffee but only the two humans do, as shown in Figure 4.



Figure 4 Biomimetic Humanoids and humans meeting to decide on some issues will become very common.

The future societies of humanoid robots with human AVI-consciousness and humans can take many forms, depending on whether they are initially on Earth, Earth’s Moon, Venus, Mars, or other planets and moons in the solar system. However, note that the conscious biomimetic humanoid robots can also travel to distant space destinations, as aliens from Earth, using quantum entanglement and artificial intelligence.

Quantum entanglement is a quantum field and wave functions that enable waves to exist and manifest life over vast distances in space. This is because, according to Professor Richard Feynman,³ the electron field and waves (electron cloud) appear to be connected everywhere in the universe.

This paper also discusses the remarkable projects these biomimetic humanoid robots can undertake and complete to benefit humanity and Earth while living in human communities. In reference,¹ the description of a non-fiction scenario for humanity to survive the universe immortally by creation of similar biomimetic conscious humanoid robots with a special consciousness in which the humanoid robot knows that it is modeling a human master (owner) with an identity and a life vita (educational and life resumes, life story, and possibly memories) that will have a consciousness or self-awareness of itself (IVA-Consciousness) and will be staying in this universe immortally forever. The present paper covers the amazing communities and societies created by humans, robots, and IVA-Conscious biomimetic humanoid robots.

Results & discussion

This paper discusses the expansion of societies through the participation of conscious biomimetic humanoid robots and humans. The ultimate goal of the paper is to expand the ideas presented in reference² and describe possible, realistic (no science fiction) amazing future communities and societies that human conscious biomimetic humanoids and humans together will create, enabling a wonderful future for Earth, Earth’s Moon, Venus, Mars, Humanity, Solar System planets and moons, and the Universe. Note that, as mentioned in,² consciousness of the human master owner is cognitive/mind-uploaded and digitally transferred advanced software to a humanoid robot (*identity, vita assigned, including education, training, life story, life memories & official name, IVA-Consciousness,*¹) by instructing it initially that it has the identity and name of a human master owner and it belongs to a human master owner with a certain vita, life story, and life memories (i.e., IVA-Consciousness) to share with the humanoid robot to make the humanoid robots really feel like the human master and owner.

The biomimetic humanoid robots will not need air to breathe, water to drink, or food to eat, and they do not generate any waste, either. They may not need or require a salary for their work.

They will need annual maintenance and repairs to ensure their system’s microstructure and microprocessors operate properly. The conscious biomimetic humanoid robots can thus travel in space, live, and remain on Earth’s Moon, Venus, or Mars as aliens from Earth.

A couple of rules are set here right off the bat to declare that:

Every human can only create one duplicate look-alike humanoid, and no more. This will be the first rule of the conscious biomimetic “humanoids and humans” society. On other rights for humanoid robots, however, for example, voting rights should be extended to both humans and humanoids. Note that every IVA-Conscious humanoid has a unique human master owner and cannot be duplicated, because it is already a duplicate of its human master owner.

Consider the above as initial rules for these societies.

Humanity and life can survive immortally by creating biomimetic humanoid robots from a human master with a consciousness of a human who would guide and teach (digitally or conceptually) its look-alike humanoid robot as a companion and digitally or cognitively understand and learn everything about the IVA-Consciousness of the human master, his life story, and vita to realize that it is a biomimetic humanoid robots of a master human. By associating with its own biomimetic humanoid robots, the human can gradually upload their human consciousness digitally or cognitively. Once the master human life is nearing its end (old age or illness), the humanoid will take over and can survive as long as it has the energy from long-lasting

diamond batteries,¹ which can power it for decades. The humanoids also need resources for their annual maintenance and repair, just in case. These facts also apply to humanoids’ families, as described later in this paper. These humanoid robots can perform amazingly well on Earth and other planets, providing valuable resources for Earth and humanity. These humanoids can benefit from quantum entanglement and AI to instantly travel to other space destinations.

Humanoid robots with human consciousness (IVA-Consciousness) all look alike to their human master-owners and can be far more intelligent and knowledgeable than their human masters. They do not forget anything. They can be larger, smaller, or just human-sized. They can be quite giant humanoids (Figure 2) if needed.

They can have multiple hands, fingers, and legs, and may have universal joints that allow their bodies to turn at the waist or neck in any direction and to turn back, as described in this paper (Figures 3(a,b)).

The biomimetic humanoid robots in Figures 3a and 3b display remarkable additional capabilities enabled by the creation of biomimetic conscious humanoid robots.

In future societies, there will also be many meetings between conscious, biomimetic humanoid robots and humans to decide on a course of action with AI assistance, as shown in Figure 4.

Note in Figure 4 that there are only 2 cups of coffee on the table. The reason is that the two humanoid robots in Figure 4 do not drink coffee, whereas only the two humans do.

The future societies of humanoid robots with human consciousness and humans can take many forms, depending on whether they are initially on Earth, Earth’s Moon, Venus, Mars, or other planets and moons in the solar system. At home, they can be easily turned off, stored in a special closet, and turned back on again the next morning.

However, as described in reference,¹ biomimetic humanoid robots can also travel to distant space destinations using quantum entanglement and artificial intelligence.²

Quantum entanglement is a quantum field and wave functions that enable waves to exist and manifest life over vast distances in space. This is because, according to Professor Richard Feynman,³ the electron field and waves (electron cloud) appear to be connected everywhere in the universe.

Detailed Introduction: “Conscious biomimetic Humanoid robots” can mean a few different things, depending on whether you’re thinking scientifically, philosophically, or creatively.

Machine and Humanoid Consciousness Models: Embodied AI-robots with physical bodies interacting with the world to develop more complex cognitions. If one means humanoid robots that behave as conscious beings, then this is more realistic.

Biomimetic Humanoids in Education and Medical Therapy: Humanoid robots are being used in educational settings to teach concepts intuitively and have shown promise in supporting autistic children.

Liability and Accountability: Criminal and civil law: Current legal frameworks may not fully address situations in which a biomimetic humanoid robot causes harm.

Social Acceptance and Psychological Effects: Social acceptance remains a major hurdle to the widespread adoption of humanoid robots, as cultural norms and prejudice shape how people perceive them.

Important Issues in Conscious Biomimetic Humanoids and Human Societies: In this paper, the human and conscious biomimetic robotic humanoids communities of the future will be discussed in terms of acceptable and reasonable new community laws, rules, and regulations on Earth, Earth’s Moon, Venus, and Mars

Conscious Humanoids and Humans Societies on Earth:

This paper discusses the laws, rules, and regulations governing interactions between master-owners and conscious biomimetic humanoid robots.

Community models to review

In this paper, the humans and conscious robotic humanoids communities of the future will be discussed in terms of acceptable and reasonable new community laws, rules, and regulations on Earth, Earth’s Moon, Venus, and Mars:

1-Hum-Conscious-Hum Societies on Planet Earth

2-Hum-Conscious-Hum Societies on the Earth’s Moon

3-Hum-Conscious-Hum Societies on Planet Venus

4-Hum-Conscious-Hum Societies on Planet Mars

5-Hum-Conscious-Hum Societies on other solar system members and planets.

Humanoid robots are subject to applicable community laws, rules, and regulations governing their presence. Some of which are described here, but more are described later in the paper in connection with the Golden Rules applied to the conscious biomimetic humanoids and humans, Communities and Societies.

Conscious humanoids and human societies on earth

This paper discusses the laws, rules, and regulations governing interactions between master-owners and conscious humanoid robots.

One should first define the environments in which such interactions will occur between IVA-conscious humanoid robots and their human masters. IVA stands for Identity, Vita –Assigned. Current community rules and regulations, applicable to all human beings except humanoid robots, are already in place.

Note that alongside other humanoids, human life constitutes a novel experience for them in the Universe. Figure 5 shows cooperation between conscious biomimetic humanoids and humans.



Figure 5 Humanoid robots and human cooperation in automation.

As shown in Figure 5, the conscious biomimetic humanoid robots cooperate with humans to design and automate manufacturing efficiently.

Interactions among humanoid robots will also be of interest here, particularly regarding community laws, rules, and regulations, as well as the presence of human masters and owners.

IVA-Conscious Biomimetic Humanoids and Human Societies on Earth will lead to wonderful interactions between conscious biomimetic humanoids and humans.

Since humanoid robots are essentially immortal, it will be unique to develop new relationships for them and learn to live with them in such a community and society.

a-The Hum-Conscious-Hum Societal Governing Structures and Laws coexist with the governing laws, regulations, and rules of the normal human societies.

The conscious biomimetic humanoid robots will live with their human masters for a few years as companions and close friends, and thus will be familiar with the community laws, rules, regulations, and community agreements as applied on Earth. They will also gradually learn the sentient capabilities. In terms of the human master feeling jealous about the success of others and explain that feeling to the his or her conscious biomimetic humanoid robot.

b- Establish rules for general and acceptable relationships between the conscious humanoid robots and humans.

Recall that humanoid robots are basically immortal, not needing air, water, or food, and not generating any waste.

c- Allowable relationship and communications exist between male and female humanoid robots with human consciousness on Earth.

However, there is basically no significant difference between humanoid males and females, except for their IVA-consciousness designation.

Here, one should mention that married couples can also develop and have their IVA-Conscious humanoids (who are virtually married through connection with their human masters who stay married until one dies (due to old age or sickness). In this case, the married humanoid couple will remain immortally married. They can keep the surviving human master company after the death of one of the married human masters. The married humanoid robots can even have children, which may seem implausible, but will be shown to be possible. This means that married humanoid couples can design and build a humanoid child and provide the means for the child to grow, survive, and lead an independent, immortal life.

These developments will likely give rise to novel social communities and the laws, rules, and regulations that govern them.

Inheritance laws, rules, and regulations should also apply to humanoid robots as well as to humans.

d- Emergence of creative and innovative projects that will involve research and development, and creation and operation of unique products, systems, and structures.

e- Establishment of automation and manufacturing infrastructures and systems to help manufacture specialty items and products for the mother planet Earth and humanity.

Earth-bound humanoid robots can also mingle and work among humans, other humanoids, and their human masters.

f- Special contracts, agreements, and relationships, such as humans marrying humanoid robots or humanoid robots marrying other humanoid robots, may also be possible under the existing community laws, rules, and regulations.

The answer to the following questions is generally positive or yes:

Can humans marry conscious humanoid robots?

Can conscious humanoid robots marry other conscious humanoid robots?

Can conscious humanoid robots marry other conscious humanoid robots and have children who grow and train to become conscious humanoid young robots?

Can humans marry conscious humanoid robots and have children who grow and train to become conscious humanoid robots?

Can married individuals who cannot have biological children create a biomimetic humanoid robot (while still married) that can then design and create their own humanoid children, as if the married individuals who could not have children could now have conscious humanoid children?

The human masters may even gradually help the child to grow bigger and older. The child humanoid will grow to be 18 years of age and then be officially recognized as a conscious biomimetic humanoid robot with human AVA-consciousness. Can conscious humanoid robots marry other conscious humanoid robots and have children who grow and train to become conscious humanoid robots? The answer is, Yes.

Recall that humanoid robots have lived with their human masters for a few years as intimate companions and close friends, and thus will be familiar with the community laws, rules, and regulations applied on Earth, the Earth's Moon, Venus, and Mars.

The humanoid robots may also be able to understand and possibly duplicate some sentient-type questions, such as how much jealousy one feels upon observing someone else's success in achieving goals.

Furthermore, human masters will expand the sentience capabilities of humanoid robots. It is important to discuss the original ideas of Professor Stephanie Forrest and her research team,⁴ who asked how to make Unix-based computers recognize foreign intruders and viruses and eliminate them. This is an interesting area, especially in connection with quantum computers, to realize if computers can start to feel self or nonself, intruders.

One can assume that this will be a great beginning for the development of machine consciousness. Leading scientists are calling for an immediate research moratorium on this self-awareness.

Furthermore, human masters will expand the sentience capabilities of humanoid robots. It is important to discuss the original ideas of Professor Stephanie Forrest and her research team,⁴ who asked how to make Unix-based computers recognize foreign intruders and viruses and eliminate them.

Conscious Humanoids and Human Societies on the Earth's Moon: This paper discusses the laws, rules, and regulations governing interactions between master-owners and conscious humanoid robots on the Earth's Moon.

Conscious Humanoids and Human Societies on Planet Venus:

Interaction among humanoid robots will also be of interest here, particularly regarding community rules and regulations. Venus has a

quasi-satellite, officially designated Zoozve (NASA Science + The Planetary Society).

Conscious Biomimetic Humanoids and Human Societies on Planet Mar: This paper discusses the laws, rules, and regulations governing interactions between humans, master-owners, and conscious humanoid robots on Mars.

Conscious Humanoids and Human Societies on other solar system members and planets. This paper will explore other possibilities for humanoid robots to travel to other planets in the Solar System.

What Are Some Community and Society Laws, Rules, and Regulations for the Conscious biomimetic Humanoids and humans' interactions?

Golden Rules Considerations: This paper further discusses the Golden Rule for conscious biomimetic humanoids and human societies.

Sports Activities by Conscious Humanoids and Humans. In the new "conscious humanoids and humans" societies, amazing new sports and competitions between humanoid robots and humans will emerge.

New Community- Wise and Societal Development in the Religious Communities. Certainly, religions will stay strong even after the emergence of large communities of conscious biomimetic humanoid robots. Humanoid robots can also be religious, attend church meetings, and even pray.

Other interesting new communities are:

New societal development in the medical activities: The second important group to consider in the emerging society of conscious humans and humans is medical doctors and surgeons, along with the nurses and medical assistants associated with them.

New societal development in the business communities

New societal development in the arts, cinema, entertainment, music, and theatrical activities

New societal development in the automation and manufacturing activities and communities

Quantum consciousness and the origin of life

The emergence of machine artificial consciousness and quantum computers to figure out and replace or mimic human consciousness

Conscious humanoids and human societies on the earth

Conscious humanoids and human societies on the earth's moon

Conscious humanoids and human societies on venus

Conscious humanoids and human societies on mars

Conscious humanoids and human societies on other moons, planets, and solar system members.

Expansion of Space exploration for IVA-conscious humanoid robots to develop other new forms of humanoid robots, like monster-like humanoids or multiple-handed and legged humanoid designs.

Look forward to Artificial Consciousness and Quantum Computers To Replace Or Mimic Human Consciousness

In this paper, the future human and conscious biomimetic robotic humanoid communities will be discussed in terms of acceptable and

reasonable new community laws, rules, and regulations on Earth, Earth’s Moon, Venus, and Mars.

Figures 4a and 4b present possible scenarios for future communities and societies involving conscious humanoid robots and conscious humans.

Brief summary

This paper aims to describe the future communities and societies that will be formed by conscious, biomimetic humanoid robots and human beings. Continuation of “Biomimetic Humanoid Robots with Human Consciousness,” recently published by Jenny Stanford Publishing,² This book advocates enacting new laws, regulations, rules, and guidelines governing the community of conscious humanoids and humans. Additionally, the present book discusses the emergence of amazing conscious humanoid robots and their unbelievable capabilities and intelligence. This paper also discusses the presence and interactions of conscious biomimetic humanoid robots with their human master owners, other humans, and other conscious biomimetic humanoid robots.

Humanity and life can survive immortally by creating conscious humanoid robots from a human master with a consciousness of a human who would guide and teach (digitally) its look-alike humanoid robot as a companion and digitally learn and be-taught everything about the consciousness of the human master, his life story, and educational vita and life experiences to realize that it is a humanoid of a master human. The humanoid robot will live with its human master owner for a few years as a very close companion and friend. Once the master human life is nearing its end (old age or illness), the humanoid will partially take over and can survive immortally as long as it has the energy to do so, and even travel through space to other planets as aliens from Earth. The humanoids do not need air to breathe, water to drink, food to eat, and do not generate any waste either. These facts also apply to humanoids’ families, as described later in this book. These humanoid robots can perform amazingly well on Earth and other planets, providing valuable resources for Earth and humanity.

These humanoids can benefit from quantum entanglement and AI to instantly travel to other space destinations as aliens from Earth.

They can have multiple hands, fingers, and legs, and may have universal joints that allow their bodies to turn at the waist or neck in any direction and to turn back, as described in this paper (see Figures 2–4). Thus, even if humanoid robots do have a consciousness as good as that of human masters, their bodily strength and versatility, as mentioned, are far superior to those of human masters. The future societies of humanoid robots with human consciousness and humans can take many forms, depending on whether they are initially on Earth, Earth’s Moon, Venus, Mars, or other planets and moons in the solar system. However, humanoid robots can also travel to distant space destinations using quantum entanglement and artificial intelligence. This paper also discusses the amazing projects these humanoid robots can undertake and complete to benefit humanity and Earth, and to further our understanding of the world and the universe.

Detailed descriptions

“Conscious Humanoid robots” can mean a few different things, depending on whether you’re thinking *scientifically*, *philosophically*, or *creatively*. Can humanoid robots actually become conscious? In essence, they can, except for knowing the details of the human master’s life story, activities to date, and education and knowledge.

At present, some *robots or AI systems may be artificially conscious*. Consciousness involves subjective experience and sentience such as —“thoughts, feelings, sensations, hate, jealousy, retaliation, anger, sensing organs, temperature sensing, tastes, moods, emotions, missing people and things, sexual desires, enjoyment, love, dreams, worries, deja-vu, disappointments, music enjoyment, art, painting and statue making enjoyment, and awareness of self-perceptions, etc.”. Let’s discuss the various roles of conscious humanoid robots in a normal community or society on Earth. Researchers explore Artificial General Intelligence (AGI)—a broad capability, not necessarily consciousness.

Conclusion

This paper will try hard to answer some of these questions for future societies. It should be realized that Social and Caregiving Roles are assumed to be the same for conscious biomimetic humanoids and humans.

Machine consciousness models may also benefit Companionship and cognitive support. In settings such as elder care, robots can provide companionship, emotional support, and cognitive stimulation to mitigate loneliness. They can also help with simple tasks and rehabilitation exercises.

Humanoids help in Education, Training, and Medical Therapy: Humanoid robots are being used in educational settings to teach concepts in intuitive ways and have shown promise in supporting children with autism.

In hospitals and homes, robots can perform routine tasks, freeing human workers to focus on more complex, higher-value activities. Social interaction research explores the dynamics of human-robot social and physical interactions, informing future robot designers and our understanding of human responses.

Liability and accountability: Criminal and civil law: Current legal frameworks may not fully address situations in which a humanoid robot causes harm. While a human operator or manufacturer is typically held liable today, the legal gray area is expanding as robots become more autonomous.

Defining personhood: Legal questions arise over whether advanced humanoid robots could or should be granted some form of personhood, with corresponding rights and responsibilities.

This situation is fully expanded and discussed in reference¹ and in the current paper in connection with IVA-Consciousness.

Human Safety and Privacy: Robust security: As robots navigate human environments, strict safety standards are necessary to prevent harm. This includes creating fail-safe mechanisms and operational safety protocols.

A recent book⁵ by Professor Dr. Samuel Xiaangming Li, entitled “Hello Humanoids”, does discuss the emergence of humanoid robots and symbiotic laws, as discussed below:

Samuel Xiaangming, “Hello Humanoids”, Xiaangming publications, 2025

The five symbiotic Laws:

Have Empathy, Empower Humans, Be Transparent, Protect the Earth, and Evolve with Control.

It must also be mentioned that entropy is responsible for the beauty of design and organization in the world, such as the fantastic designs of

flowers, including orchids like the Angel and Dove, and similar ones. You may be familiar with the “arrows of time.” Dr. Robert Hazen, a staff scientist at the Earth and Planets Laboratory of Carnegie Science in Washington, DC, thinks that a single arrow of time may be too limiting. A second arrow, which he has dubbed “the law of increasing functional information,” considers Charles Darwin’s evolutionary history.

The relationship between entropy and self-organization can be mathematically modeled by treating the living system as a dynamic system of interacting parts and entropies, subject to constraints. Another approach might use game theory on living systems, as with dynamic systems. This theory is mainly a probabilistic method that develops a mathematical model starting from a set of “games” initially defined and considering various finite strategy spaces.

However, note that the communication model is based on probabilities; the entropy here can be defined as the uncertainty about which path the system will follow.

Boltzmann introduced the entropy formula, relating the number of microscopic states of a system to its thermodynamic entropy. This equation reads:

$$S = k_B \ln W \quad (1)$$

Where k_B is the Boltzmann constant (also written as simply k) and equal to 1.380649×10^{-23} J/K, and \ln is the natural logarithm function. W can be counted using the formula for permutations

$$W = \frac{N!}{\prod_i N_i!} \quad (2)$$

Where i ranges over all possible molecular conditions and the dot. Denotes factorial. The restriction are applied here is that entropy cannot exceed the channel capacity and, therefore, is directly dependent on the number of elements within the informational system. This restriction applies only to the ideal case of an isolated informational system.

This will conclude our discussion on the future communities and societies of conscious biomimetic humanoid robots and humans on Earth, Earth’s Moon, Venus, Mars, and other planets.

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Conflicts of interest

There are no conflicts of interest.

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