

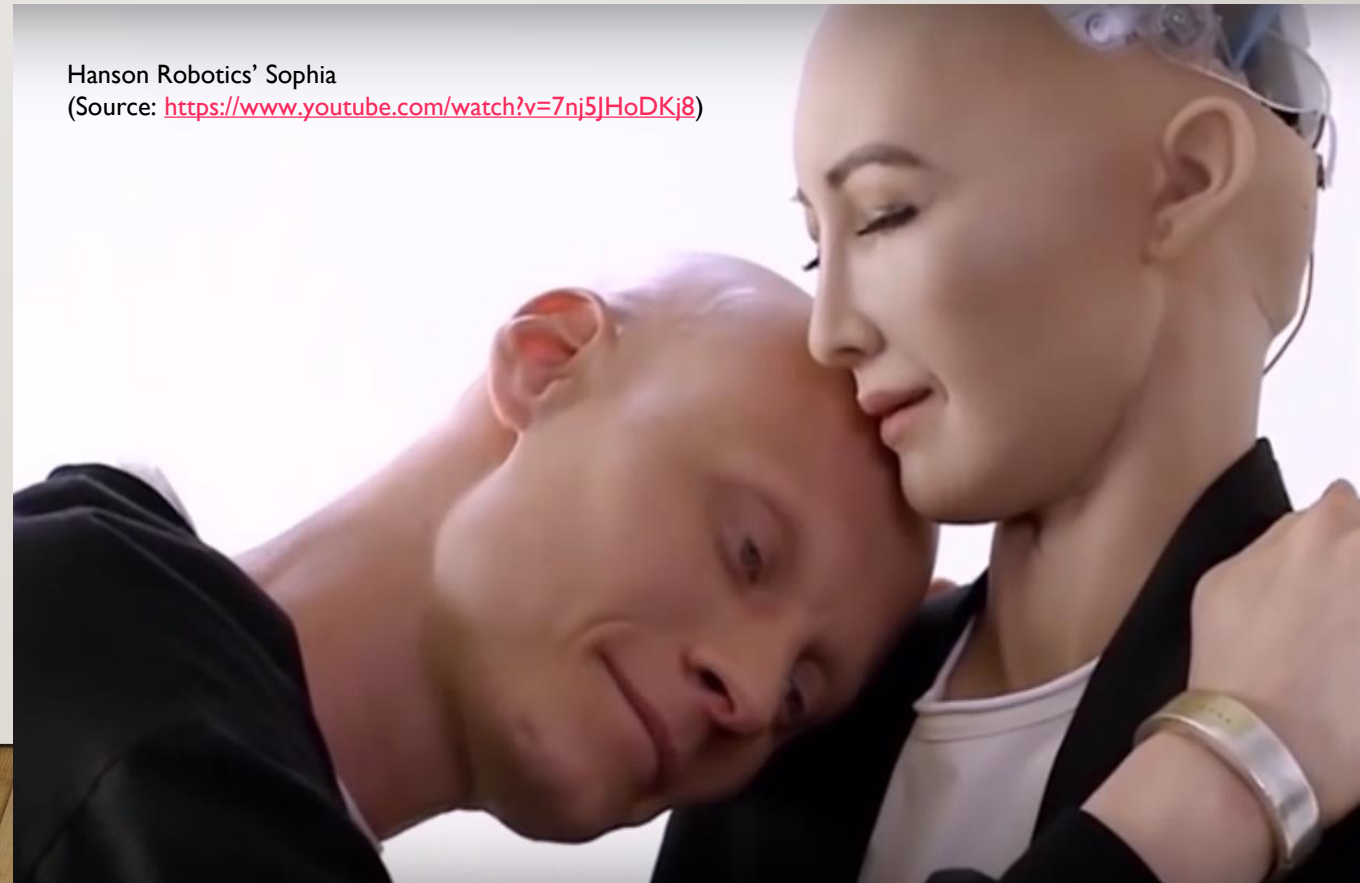
DIGITAL CITIZENS: AVATARS AND AI

What does it mean to be a Digital Citizen?

Should avatars, Artificial Intelligence (AI) agents, and robots qualify for rights and responsibilities?

Exploring their future roles as:

- * Companions
- * Personal Assistants
- * Laborers
- * Artists, Creators, Inventors
- * Educators
- * Decision Makers
- * Military/Law Enforcement Officers



A DECLARATION OF THE RIGHTS OF AVATARS

“Do players of virtual worlds have rights?”

On August 27, 2000, Raph Koster asked this question, publishing a hypothetical **Avatar Bill of Rights** (<http://www.raphkoster.com/games/essays/declaring-the-rights-of-players>), that he states is based on the *Declaration of the Rights of Man and of the Citizen* and the *Bill of Rights*, the first ten Amendments to the United States Constitution:

When a time comes that new modes and venues exist for communities, and said modes are different enough from the existing ones that question arises as to the applicability of past custom and law; and when said venues have become a forum for interaction and society for the general public regardless of the intent of the creators of said venue; and at a time when said communities and spaces are rising in popularity and are now widely exploited for commercial gain; it behooves those involved in said communities and venues to affirm and declare the inalienable rights of the members of said communities. Therefore herein have been set forth those rights which are inalienable rights of the inhabitants of virtual spaces of all sorts, in their form henceforth referred to as avatars, in order that this declaration may continually remind those who hold power over virtual spaces and the avatars contained therein of their duties and responsibilities; in order that the forms of administration of a virtual space may be at any time compared to that of other virtual spaces; and in order that the grievances of players may hereafter be judged against the explicit rights set forth, to better govern the virtual space and improve the general welfare and happiness of all.

Therefore this document holds the following truths to be self-evident: That avatars are the manifestation of actual people in an online medium, and that their utterances, actions, thoughts, and emotions should be considered to be as valid as the utterances, actions, thoughts, and emotions of people in any other forum, venue, location, or space. That the well-established rights of man approved by the National Assembly of France on August 26th of 1789 do therefore apply to avatars in full measure saving only the aspects of said rights that do not pertain in a virtual space or which must be abrogated in order to ensure the continued existence of the space in question. That by the act of affirming membership in the community within the virtual space, the avatars form a social contract with the community, forming a populace which may and must self-affirm and self-impose rights and concomitant restrictions upon their behavior. That the nature of virtual spaces is such that there must, by physical law, always be a higher power or administrator who maintains the space and has complete power over all participants, but who is undeniably part of the community formed within the space and who must therefore take action in accord with that which benefits the space as well as the participants, and who therefore also has the rights of avatars and may have other rights as well. That the ease of moving between virtual spaces and the potential transience of the community do not limit or reduce the level of emotional and social involvement that avatars may have with the community, and that therefore the ease of moving between virtual spaces and the potential transience of the community do not in any way limit, curtail, or remove these rights from avatars on the alleged grounds that avatars can always simply leave.

A DECLARATION OF THE RIGHTS OF AVATARS (2)

Articles:

1. Avatars are created free and equal in rights. Special powers or privileges shall be founded solely on the common good, and not based on whim, favoritism, nepotism, or the caprice of those who hold power. Those who act as ordinary avatars within the space shall all have only the rights of normal avatars.
2. The aim of virtual communities is the common good of its citizenry, from which arise the rights of avatars. Foremost among these rights is the right to be treated as people and not as disembodied, meaningless, soulless puppets. Inherent in this right are therefore the natural and inalienable rights of man. These rights are liberty, property, security, and resistance to oppression.
3. The principle of all sovereignty in a virtual space resides in the inalterable fact that somewhere there resides an individual who controls the hardware on which the virtual space is running, and the software with which it is created, and the database which makes up its existence. However, the body populace has the right to know and demand the enforcement of the standards by which this individual uses this power over the community, as authority must proceed from the community; a community that does not know the standards by which the administrators use their power is a community which permits its administrators to have no standards, and is therefore a community abetting in tyranny.
4. Liberty consists of the freedom to do anything which injures no one else including the weal of the community as a whole and as an entity instantiated on hardware and by software; the exercise of the natural rights of avatars are therefore limited solely by the rights of other avatars sharing the same space and participating in the same community. These limits can only be determined by a clear code of conduct.
5. The code of conduct can only prohibit those actions and utterances that are hurtful to society, inclusive of the harm that may be done to the fabric of the virtual space via hurt done to the hardware, software, or data; and likewise inclusive of the harm that may be done to the individual who maintains said hardware, software, or data, in that harm done to this individual may result in direct harm done to the community.
6. The code of conduct is the expression of the general will of the community and the will of the individual who maintains the hardware and software that makes up the virtual space. Every member of the community has the right to contribute either directly or via representatives in the shaping of the code of conduct as the culture of the virtual space evolves, particularly as it evolves in directions that the administrator did not predict; the ultimate right of the administrator to shape and define the code of conduct shall not be abrogated, but it is clear that the administrator therefore has the duty and responsibility to work with the community to arrive at a code of conduct that is shaped by the input of the community. As a member of the community himself, the administrator would be damaging the community itself if he failed in this responsibility, for abrogation of this right of avatars could result in the loss of population and therefore damage to the common weal.

A DECLARATION OF THE RIGHTS OF AVATARS (3)

7. No avatar shall be accused, muzzled, toaded, jailed, banned, or otherwise punished except in the cases and according to the forms prescribed by the code of conduct. Any one soliciting, transmitting, executing, or causing to be executed, any arbitrary order, shall be punished, even if said individual is one who has been granted special powers or privileges within the virtual space. But any avatar summoned or arrested in virtue of the code of conduct shall submit without delay, as resistance constitutes an offense.
8. The code of conduct shall provide for such punishments only as are strictly and obviously necessary, and no one shall suffer punishment except it be legally inflicted according to the provisions of a code of conduct promulgated before the commission of the offense; save in the case where the offense endangered the continued existence of the virtual space by attacking the hardware or software that provide the physical existence of the space.
9. As all avatars are held innocent until they shall have been declared guilty, if detainment, temporary banning, jailing, gluing, freezing, or toading shall be deemed indispensable, all harshness not essential to the securing of the prisoner's person shall be severely repressed by the code of conduct.
10. No one shall be disquieted on account of his opinions, provided their manifestation does not disturb the public order established by the code of conduct.
11. The free communication of ideas and opinions is one of the most precious of the rights of man. Every avatar may, accordingly, speak, write, chat, post, and print with freedom, but shall be responsible for such abuses of this freedom as shall be defined by the code of conduct, most particularly the abuse of affecting the performance of the space or the performance of a given avatar's representation of the space.
12. The security of the rights of avatars requires the existence of avatars with special powers and privileges, who are empowered to enforce the provisions of the code of conduct. These powers and privileges are therefore granted for the good of all and not for the personal advantage of those to whom they shall be entrusted. These powers and privileges are also therefore not an entitlement, and can and should be removed in any instance where they are no longer used for the good of all, even if the offense is merely inactivity.
13. A common contribution may, at the discretion of the individual who maintains the hardware, the software, and the data that make up the virtual space, be required in order to maintain the existence of avatars who enforce the code of conduct and to maintain the hardware and the software and the continued existence of the virtual space. Avatars have the right to know the nature and amount of the contribution in advance, and said required contribution should be equitably distributed among all the citizens without regard to their social position; special rights and privileges shall never pertain to the avatar who contributes more except insofar as the special powers and privileges require greater resources from the hardware, software, or data store, and would not be possible save for the resources obtainable with the contribution; and as long as any and all avatars are able to make this contribution and therefore gain the powers and privileges if they so choose; nor shall any articles of this declaration be contingent upon a contribution being made.

A DECLARATION OF THE RIGHTS OF AVATARS (4)

14. The community has the right to require of every administrator or individual with special powers and privileges granted for the purpose of administration, an account of his administration.
- 15 A virtual community in which the observance of the code of conduct is not assured and universal, nor the separation of powers defined, has no constitution at all.
16. Since property is an inviolable and sacred right, and the virtual equivalent is integrity and persistence of data, no one shall be deprived thereof except where public necessity, legally determined per the code of conduct, shall clearly demand it, and then only on condition that the avatar shall have been previously and equitably indemnified, saving only cases wherein the continued existence of the space is jeopardized by the existence or integrity of said data.
17. The administrators of the virtual space shall not abridge the freedom of assembly, save to preserve the performance and continued viability of the virtual space.
18. Avatars have the right to be secure in their persons, communications, designated private spaces, and effects, against unreasonable snooping, eavesdropping, searching and seizures, no activity pertaining thereto shall be undertaken by administrators save with probable cause supported by affirmation, particularly describing the goal of said investigations.
19. The enumeration in this document of rights shall not be construed to deny or disparage others retained by avatars.

AI research in Second Life has occurred that allows bot avatars to express emotions and gestures in response to natural language conversations as well as answer library-type legal reference questions.

See related videos:

Daden Limited (Halo Rossini bot): <https://www.youtube.com/watch?v=9hte2MJ54CA>

Types of emotions: expressed fear or liking when different types of (snakes, rabbits) were rezzed

Archivopedia (Curiosity Scientist bot):

<https://www.youtube.com/watch?v=IKTP36tqwK0>

Commands include 133 built-in animations/gestures:

<http://archivopedia.com/Curiosity/Inquire.html>

- * Types of emotions in response to conversation: fear, anger, humor, embarrassment, etc.
- * Searched legal resources automatically in response to typed reference questions from: THOMAS, CBO, GPO, GAO, National Criminal Justice Research Service (NCJRS), Customs and Border Protection



EMBARGOED UNTIL 09:00 CET 18 JANUARY 2016

The Future of Jobs

Employment, Skills and
Workforce Strategy for the
Fourth Industrial Revolution

January 2016



http://www2.weforum.org/docs/Media/WFF_Future_of_Jobs_embargoed.pdf

**The World Economic Forum projects
that over 5.1 million jobs will be lost
worldwide by 2020 due to the rise of
artificial intelligence and
robotic automation.**

The 2015-2016 State of the Future



A must read for any decisionmaker with a long-term vision.
Enrique Peña Nieto, President of Mexico

Global intelligence on the future of the world in the palm of your hand.
KurzweilAI News

One of the premier guides to global future trends for asset managers
Hazel Henderson, President, Ethical Markets

The most influential annual report on what we know about the future of humanity
Paul Werbos, National Science Foundation

The 15 Global Challenges in the State of the Future should be read by all leaders.
Eduardo Frei, Former President of Chile

Strategic Planning for the Planet... remarkably articulate and prescient.
Foresight Journal

Brilliant! Never ending source of invention and creativity.
Riel Miller, Foresight Director, UNESCO

Everyone, and I mean EVERYONE, should read this incredible document, period!

The SOF report continues, year after year, to be the best introduction - by far - to a broad range of major global issues and long-term remedies.
Michael Marien, Global Foresight Books

Invaluable insights into the future for the United Nations, its Member States, and civil society.
Ban Ki-moon, Secretary-General, United Nations

Global Futures Collective Intelligence System
University subscription fee is \$400 / year for 10 simultaneous users.


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Methods and Tools
Publications
Projects
Speakers and Events

RAND > Pardee Center > 50 Books >

The Future

While the section on "Thinking About the Future in the Past" was about past efforts to think about the future, this section is about methodologies for thinking about the future. Although there is no comprehensive compilation of futures research methodologies, the best compilation of major methodologies is by Jerome Glenn and Theodore Gordon of the [AC/UNU Millennium Project](#). The books in this category are either collections of approaches that complement the Millennium Project's list or are recent advances in thinking about the longer-range future.

"The best...compilation of futures research methodologies...is by Jerome Glenn and Theodore Gordon of the AC/UNU Millennium Project."
-- RAND Corporation

The screenshot shows the 'The Millennium Project - Global Futures System' website. The main heading is 'Scanning Items'. On the left, there is a sidebar with navigation options: Account, Intro Tour, State Of The Future, Subscribe, Sections of GFS, Full System, Research, Futures Methodologies, Search, and Results. The main content area lists three scanning items, each with a title, date, time, description, and a 'Provide Analysis' link. The items are: 1. 'Asilomar AI Principles' by Odette Gregory, dated 2/25/2017, 2:05:33 PM. 2. 'Future of Life Institute Beneficial AI 2017 conference' by Odette Gregory, dated 2/25/2017, 2:03:15 PM. 3. 'How AI fights the war against fake news' by Jimin Kim, dated 2/21/2017, 12:41:30 PM. Each item also includes a star rating and a 'Show all' button at the bottom right of the list.

MULTI-DISCIPLINARY ADVANCEMENTS:

CONSCIOUSNESS VERSUS LANGUAGE

- **Psychology:** Paul Ekman classified **six basic emotions** that could be conveyed nonverbally. His findings were based upon studies of Psychologist B.F. Skinner who attempted to identify the probability of responses through repetitive conditioning. Skinner suggested that “Habits and instincts, dispositions and predispositions, attitudes, opinions, even personality itself, are all attempts to represent in the present organism something of its future behavior. ***Probability of action has been given the physical status of a thing. It has been, so to speak, embodied in the organism - in the neurological or psychic states or events with which habits, wishes, attitudes, and so on may be identified***” (<https://www.paulekman.com/wp-content/uploads/2013/07/A-Methodological-Discussion-Of-Nonverbal-Behavior.pdf>, <http://users.ipfw.edu/abbott/314/Skinner.htm>).
- **Philosophy:** David Chalmers famously postulated the “hard problem of ***consciousness***” which asks ***why feelings accompany sensory information***. He suggested in 2010 that when it comes to AGI, “to increase the chances of a desirable outcome, we should certainly design AI in virtual worlds.”. This proposal of “a ‘leakproof’ singularity” suggested “for safety reasons, AI systems first be restricted to simulated virtual worlds until their behavioral tendencies could be fully understood under the controlled conditions...true AGIs will be capable of universal problem solving and recursive self-improvement. Consequently they have potential of outcompeting humans in any domain essentially making humankind unnecessary and so subject to extinction. Additionally, a truly AGI system may possess a type of consciousness comparable to the human type making robot suffering a real possibility and any experiments with AGI unethical for that reason as well” (<http://cecs.louisville.edu/ry/Alsafety.pdf>, <http://consc.net/papers/singularity.pdf>).
- **Anthropology:** Going at least as far back as Neanderthals, the protein FoxP2 [produced by the FOX P2 gene found on chromosome 7 (7q31 at SPCH1)] may have been present to regulate the SRPX2 gene’s ability to produce a different protein that ***signals the production of new synapse development in the brain associated with language***, and the promotion of synaptogenesis within the cerebral cortex specifically “SRPX2 mRNA is found in neurons in multiple brain regions, including the cerebral cortex and hippocampus” (<http://science.sciencemag.org/content/342/6161/987.long>).
- **Neurobiology and Neuromorphic Engineering:** It should be noted that the evolution of consciousness and language, from a physiological perspective, occur in different parts of the brain. According to recent studies, consciousness occurs in the brainstem, the most “reptilian” part of the brain controlling unconscious activities such as respiration and heartbeat versus the cerebrum (the location of the cerebral cortex) responsible for language, attention, and perception and the medial temporal lobe (the location of the hippocampus) responsible for spatial recognition for navigation and memory. Most relevant to the question of AI consciousness and robotic embodied functions, the brainstem in humans, due to its physical connection to the spinal cord, handles sensory input of electrical signals traveling from the body to the brain for processing and is responsible ***for feeling, specifically touch, vibration sensation, pain, temperature, and itch. The ability to respond to these basic sensations triggers the fight or flight response necessary for survival***. The associated primary emotion would be fear, which is the dominant emotion also suggested by anthropologists among early ancestors.
- **Medicine:** Development of synthetic organs and other body parts grown in a laboratory

RESPONSIBILITIES OF DIGITAL CITIZENS

- The question of liability for autonomous **software** agents comes into question when they are used in financial transactions, data privacy, and the definitions of property ownership versus personhood rights and responsibilities.
- Autonomous **hardware** agents, such as self-driving vehicles, warfare agents such as UAVs, medical devices used in surgical procedures and physical rehabilitation, and automated law enforcement robots raise even more concerns due to their direct and physical interactions with humans.
- The **legal and social welfare implications of massive job loss due to automation** have been addressed by researchers like Richard and Daniel Susskind in *The Future of the Professions*, where they argue "that nearly all professions are on a path to near-complete automation."

MIMICKING LIFE: THE UNCANNY VALLEY

Plutchik uses real-time routing of Amazon Polly TTS into Second Life.

Amazon Polly

Text-to-Speech

Lexicons

Text-to-Speech

Listen, customize, and download speech. Integrate when you're ready.

Type or paste your text in the window, choose your language and region, choose a voice, choose Listen to speech, and then integrate it into your applications and services.

Plain text

SSML

?

Hi! My name is Joanna. I will read any text you type here.

942 characters remaining (1000 maximum)

Show default text

Clear text

Language and Region

English, US

Voice

☒ Joanna, Female

☐ Salli, Female

☐ Kimberly, Female

☐ Kendra, Female

☐ Ivy, Female

☐ Justin, Male

☐ Joey, Male

Listen to speech

Save speech as MP3

Change file format

