2236 A.D. GLOSSARY

[1]

18-Dimensional Space Theory: The theory which states that the universe is an 18-dimensional space, by way of Superposition Science. C.S. advocated this because in order for the HT Infrastructure Theory to be established, the universe had to be an 18-dimensional space.

[A]

A.I.: Abbreviation for Artificial Intelligence.

Akashic Phone(s): Refers to the tomes that detail all scientific knowledge, culture, history before Paradigm Lost, as well as the science and history left on Earth afterwards. While it is unknown just how long it took to enumerate that much information, given the fact that it's said to be enough to fill up an entire city, then it's assumed that it must have been continuously written for years upon years. The only things left to serve as a record of the Earth before Paradigm Lost are the books of the Akashic Phone series. Every book circulating around the world is a copy of the original tomes, and there are currently versions that take it a step further and have digitized the data. One theory states that the original Akashic Phones are stored in the city known as The Archive. The colors of the covers of the original versions are said to all be a uniform shade of red.

Akakura: Place name. A certain area of Myoko and home to a rather large ski slope.

Albert Einstein: 20th-century theoretical physicist. Known for his huge impact on physics by introducing concepts such as Quantum Theory, Brownian Motion, and The Theory of Relativity.

Alternative Elements: Alternative chemical elements discovered in the 21st Century. Anecdotes state that they were discovered when researching some catalyst. They exist in a times-three imaginary Pre-Directional Dimension, and cannot be observed outside of some special circumstances. They are normally used in compounds with normal chemical elements. Alternative High Molecular Compounds help form the squishy devices known as Smart Tools and things like them.

Artificial Intelligence (A.I.): In the 23rd century, advanced forms of A.I. that possess cognitive thought nearly on par with humans were created. The basic theory was constructed from the "Improper Studies" developed during the 21st Century, and their personalities are determined by the variety of axiom selected for them. They are used in numerous different fields due to their ability to effectively communicate with humans. In recent years, along with the development of organic robotic engineering, humanoids that replicate nearly all human characteristics barring HT and reproductive capabilities have been ushered in, but after much scathing criticism from bioethics organizations and labor unions, laws have been established that obligate all artificial intelligence and robots to be distinct from humans, not given human

rights, and presented in a way that makes them clearly recognizable as robots or A.I. Recently, Personal A.I. Secretary Systems have become very popular and have been integrated into people's lives as reliable partners.

[C]

Card Catalogue: A place in libraries where cards that have information pertaining to the subjects and names of the books within it can be found.

Canal: An information medium installed all over the world for the purpose for easy and global usage of HT—most importantly, telepathy. A veritable telepathic network. Dipping your hand in the waters of the canal gives you access to telepathic communication with people all over the world. By the 22th Century, service has hit every corner of the globe. The shape of canals differs from region to region, but the water that flows within is uniform across the world, conforming to the standards put in place by the WHO and WHTO.

Charles Perrault: Author of the story "Puss in Boots."

CLOSE: Condition name, standing for "Consciously Locks One's Selective Elements Syndrome." Refers to a syndrome which is an acquired Gate disorder that locks off one's ability to access one's Gate and hinders their ability to establish telepathic communication. Said to be a mental disorder with no known cures as of this date.

Connecting/Linking: Holding telepathic communication. When both parties open their gates, they become capable of transmitting information to one another. Also means to extract information from a storage medium or something of the sort.

Conscious Closed-Gate Disorder: Refer to CLOSE.

Copper: Element with the atomic number 29 and denoted by Cu on the periodic table. A metal that is red in color.

Copper (II) Oxide: A copper oxide denoted by the chemical formula CuO. Black in color.

C.S.: A 21st Century scientist. One of the scientists present when HT was first experimentally proven to exist. Advocated the HT Infrastructure Theory. Went missing in their final years.

[D]

Dimension Permutation Hypothesis: Also known as the Permutation of Axis Hypothesis. A hypothesis based on the universe being a multi-dimensional space, and the way you get rid of a shadow (dimensional substitution) once a shadow forms from part of said universe. This theory supports universes of differing aspects coexisting at the same time.

Disc Course (Disc Course Shooter): The Disc Course Shooter is a 23rd-century form of public transportation. By reservation, you can freely designate your pick-up station, time, and drop-off station. The huge discs it uses are a defining characteristic, and it flies along the direction-indicating rails. Its main principle of flight is that its discs create a force field which gives it lift off the ground. In addition, there hasn't been a single accident since it started

operation since, due to its design, it never comes into contact with other trains.

Does the Lion Bow to the Cat?: A book written by C.S. in the 21st Century.

Dr. Freud, Jung: Dr. Sigmund Freud and Carl Gustav Jung. Freud was the leading man in research into the unconscious mind and dreams. Jung supported the existence of a collective consciousness among other things.

[E]

EAJOS: Abbreviation for "Elementary Axiom Jump of Studies." Stands for axioms which make a "jump" or breakthrough in the "Improper Studies" developed in the 21st Century. EAJOS for short. In the artificial intelligence world, there are still new EAJOS being registered to this date.

Elementary Particles of the Mind: HT Particles. A person's mind can be described via the movement of HT Particles.

EMP: Short for electromagnetic pulse. An occurrence where powerful electromagnetic waves cause damage to electric circuits. The use of nuclear weapons would also create an EMP, so there are many pieces of military-use electronic equipment which have counter-EMP measures built into them.

Euler's Formula: A theorem that establishes the relationship between exponential and trigonometric functions derived by mathematician Leonhard Euler.

$$e^{i\theta} = \cos\theta + i\sin\theta$$

Special case $\theta = \pi$ gives

$$e^{i\pi} + 1 = 0$$

The above is what is referred to as Euler's identity. The special case puts together the base of natural logarithm e, trigonometic constant π , imaginary unit i, multiplication unit element 1, and addition unit element 0, helping bridge several different fields of mathematics. That is also the reason why it is referred to as "The Most Beautiful Equation."

[F]

Format: Process that utilizes common display methods in order for both parties involved in telepathic communication to hold and take information. When having a telepathic conversation, in most cases, it is conducted after having the information formatted into language. This is due in part to unformatted information not being suited towards conversation, since only things such as colors and states of excitement can be transmitted without being formatted. When telepathically transmitting to life-forms that have no language of their own, formatting the information goes about in a completely different way, so it's not likely that any advanced exchange of information can be had.

[G]

Gate: The organ, function, and/or mechanism related to telepathy perceived to be in the human brain. When people make a telepathic transmission, both of their Gates must be open. Due to the phenomenon known as telepathy having a nature which only allows it to be recursively observed via telepathy itself, and while there is no clear explanation on how Gates function, a rough estimate from observation of brainwaves and blood flow is that it lies somewhere in a part of the brain. It is assumed that life-forms with brains and/or nerve centers such as animals also possess Gates, but it is theoretically impossible to prove that true or not.

Ghostly Phenomenon: A phenomenon in which the information of a life-form is stored in an object near said life-form and a third-party hallucinates that life-form is right there next to them when they later go to read that information. There are many reports in specific of deceased individuals appearing to be alive just how they looked before they died.

Gloomy Gus: A person with a gloomy personality. Also used to refer to the passionate types who fixate on talking to A.I.s.

[H]

Heraclitus: An Ancient Greek philosopher. Famous for saying "All things are in flux."

HT: Short for Holding Task or Holding & Taking. HT Phenomenon. A propagation phenomenon originating from higher-dimensional space, or the theory attached to it. In 2033, C.S. advocated the HT Infrastructure Theory. This theory states that there exists a path for data to pass through within all objects, and by using that path as an intermediary, we can hold and take in said data. The "data" in this case being the waves of particles referred to as "HT Particles." Due to the movement of particles within a partial cloud space that is incompatible with a pre-directional dimension space, all HT-linked phenomenon, including HT Particles, are impossible to observe on a physics-level (as they are physically invisible.) In addition, Superposition Geometry has been utilized to describe the HT Infrastructure Theory. In Superposition Geometry, in order to describe a space, we expand upon the concept of a "dimension" as it is defined to us in the terms of the more familiar Euclidean Geometry. The HT Infrastructure Theory, by utilizing Euclidean Geometry, and excluding any special cases, proves that HT phenomena are physically invisible. In addition, springboarding off of this, multidimensional space theories such as the 18th Dimensional Space Theory have been actively advocated. The communication method known more commonly as Telepathy can convey data (I.E. language, any of the five senses, thoughts) by having HT Particles going from one human's Gate to another and being processed as such. This is very much linked to ghostly phenomena, and, historically speaking, HT was developed by chance while conducting an experiment into the research of ghostly phenomena. Based on research, it is believed that the sensory organs to govern HT have always existed in the minds of the human race, but that they had remained degenerate until HT was discovered in recent years. Telepathy has become a means of communication for life-forms devoid of language, all due to the fact that telepathic communication is possible with animals, or basically life-forms that possess a brain or nerve center. Stemming from this, the commonly accepted theory is that almost all lifeforms, including humans, have communicated through telepathy since ancient times. Humans were

the only ones to develop language and replace telepathy, eventually leading to the downfall of telepathic communication as a whole. A majority of paranormal phenomena that occurred before HT was scientifically explained can be logically explained via the HT Infrastructure Theory.

[0]

Illegal Robot(s): Refers to illegally-built robots that disregard the labelling requirements put in place since the rise of organic humanoids that look similar to human beings.

Information Overload: A word that refers to a sudden and quick increase in publications and data, and/or the effects of such. To be specific, once an information overload occurs in the canals, the water becomes saturated with information, and overflows with information without a clear origin, making regular usage impossible.

International Canal Laws: Collection of laws made to enforce the proper use of canals spanning the globe.

[L]

Lamaze Technique: A method for painless childbirth. Known for its particular breathing technique.

Language Expansion Pack: A package program used for installing additional libraries for languages to the pre-installed out-of-the-package language libraries in computer terminals such as Smart Tools.

Lewis Carroll: A British author and mathematician. Author of "Alice in Wonderland."

Library: An institution that collects material and books for leisurely inspection. In the 23rd century, digital publications are lined up on bookshelves, and data gets loaned out. There are libraries and publication repositories with paper publications in certain research facilities.

[M]

Moonlight Sonata: Beethoven's famous piano sonata, the third movement of which is said to be especially difficult to play correctly.

Monolith: A board-shaped storage medium. They are made from a variety of different materials and in a variety of sizes. Monoliths also vary in their storage capacity and the speed at which information can be withdrawn from them. With those of similar volume, the ones with letters written on the surface have a bigger storage capacity than those without, so many Monoliths have Bible passages written on them.

Multiplication: Basic arithmetical multiplication. An operation of adding a for b amount of times would be expressed as $a \times b$, for example.

Myoko: Place name. In Kogen and famous for its skiing resort.

Myoko Kogen Community Center: Public facility/community center in Myoko Kogen. The hall and library are loaned out to the townspeople.

[N]

Nagano Prefecture, Nagano City: Place name(s.) High elevation, frigid area.

Non-string cheese: "The kind of cheese that isn't pull and share," in story. Refers to cheese that isn't of the notable mozzarella string cheese variety.

NSL Method: Short for No Signal Locator Method. A method of coding GPS transmissions into usable data. By using the data coursing through canals and HT, it's possible to get a general location of a specific point placed on the canalways. It mainly serves useful when trying to detect underdeveloped waterways. Since it utilizes HT, human beings will end up reading (sensing) the data from the canals, but they must remember a rather complicated and vast code sheet to do anything with it. In addition, the accuracy of this method will vary greatly based on one's power to read HT and their sense for unformatted data. The reason why it is referred to as "no signal" is because the method finds location data and/or canals that don't have any formatted location data in them.

Numbers Station: A radio broadcast of unknown origin that enumerates numbers, letters, and/or words. Said to be a coded broadcast to relay information to specific people. (See: One Time Pad.)

[0]

One-Time Pad: A code using a shared key that can be used once and only once.

[P]

Pad: A thin board-like device that has a display on it. The display can show a variety of documents, images, and videos. They have numerous input methods, and are capable of taking all sorts of notes.

Pachelbel's Canon: The canon composed by Johann Pachelbel. An incredibly famous work composed by three parts and thoroughbass.

Panta Rhei: Greek for "all things are in flux," a quote from the Ancient Greek philosopher, Heraclitus.

Paradigm Lost: The universal-scale cataclysm believed to have happened around the middle of the 21st century. Any records before the advent of Paradigm Lost are almost all lost, and, while it has been investigated through a number of different methods as to what kind of cataclysm it was, there is not much of a distinct answer on the subject.

Personal A.I. Secretary System (PASS): A system for Smart Tools that started to come in

style around 2230 A.D. Built by using 7th Generation A.I. as the base, its purpose is to support people in their daily lives and provide a faithful partner to them. Since it mimics human behavior well enough, it is said to be good for emotional development as well, with reports coming out that say that it has the possibility to help early childhood mental development by stating it as "a partner by your side till the very end" and "a partner that will show you the way when you're lost."

Philosophical Zombie: Refers to humans that have no qualia yet have reactions on a physics-based level equal to that of normal humans, or a philosophical thought experiment that uses that as its base.

Pre-Directional Dimension: The six dimensional axes which include the physical phenomenon that occur around us in our daily lives. Also refers to space in general. The six dimensions are width, depth, height, and their individual imaginary number axes.

[R]

Radio: A voice-only broadcast in which a broadcasting office transmits news and music by using electromagnetic waves. Also refers to the machine that helps transmit said broadcasts.

Rainbow: A phenomenon in which spectrum-colored bands spread concentrically in the sky. Rainbows show geometric features in the way the bands break apart when they disappear. Utilizing mathematics, they can be explained as below:

$$x = cos^n(t), \qquad y = sin^n(t) \dots (*)$$

By making the radius of the outermost circle r=R, the ring around r=R/2 is expressed as n=1 for (*). As r becomes smaller than R/2, n's value approaches infinity. On the other hand, if n's value increases, it approaches 0, breaking down and disappearing as such. It's an unexpected naturally occurring phenomenon that is rarely observed.

Rainbow: A phenomenon in which a spectrum-colored arc appears after rain, which occurs by sunlight spectrally diffusing through the raindrops.

Reproduction: Live birth. One life-form creating another life-form with similar genetic information.

[S]

Sekigawa: Place name. A region in Myoko, and home to a large lake.

Separable Type: A model that appeared from the 5th generation of Smart Tools. Unlike other models, Separable Types are capable of splitting into two functioning Smart Tools. Smart Tools up to the 4th generation, despite being capable of freely shifting their form, could not split themselves apart, so it's an innovative piece of new technology.

Shock Therapy: A method of therapy in which you temporarily expose a patient to a certain kind of "shock" or physical stress to improve their condition.

Siri Shion: The name recorded in the Akashic Phone series as their author. It is said that Siri Shion was a woman, and she has been lauded as "Goddess" and "Symbol of Humanity's Knowledge" based on her achievements. However, it is unclear whether or not they were an actual, real-life individual.

Smart Tools: A type of personal computer terminal that has come into popularity in the 23rd century. Strictly speaking, a Smart Tool is a terminal capable of topological shape-shifting, composed from Alternative High Molecular gel. Extremely popular in recent years, they are referred to as being "soft devices", and can turn into several different forms so long as the needed molecular construction definition files are present. Due to the outer membranes being completely sealed off, the inner battery is non-exchangeable, giving them a life-span of about 5-6 years.

Soft Mohican: A haircut that leaves your head resembling an onion tunic.

Solar Storm: A phenomenon in which when an extremely large-scale solar flare occurs. The resulting solar winds explosively radiate, causing damage to the Earth and any satellites in space around it.

Spring Motion: Reference to simple harmonic oscillation. Harmonic oscillation is motion that draws out the one-dimensional components of circular motion. For example, if we make the radius of a circle A, the angular velocity ω and time t, the position of the body in harmonic oscillation would be displayed via the following equation:

 $x=Asin(\omega t)$

In addition, by differentiating this twice over, it will lead us to the equation of motion ma=-Kx (with m and a being the mass and acceleration of the object in motion, and K being the constant.) A key feature of an object in harmonic oscillation is that, as shown by the above equation, its location determines the amount of power put into it. The equation of motion for the object attached to the spring of the spring constant k is represented with ma=-kx. Thus, spring motion is equivalent to simple harmonic oscillation.

Spiritual Medium: Referred to in the story as a "medium to the spirits", it refers to an object that has accumulated information resulting in a ghostly phenomenon. In most cases, corpses become spiritual mediums.

Super-High Concentrated Information Overload: A highly-concentrated shockwave of HT Information; white noise of an explosive caliber.

Superposition Geometry: Geometry advocated in the 21st Century.

[T]

Tautology: An argument made by restating the assertion as evidence of itself.

Telepathy: See HT.

The Alternative World (Looking-Glass World): The details of this world are unknown.

The Archive: The city which stores the original set of Akashic Phone books. However, that city has gone undiscovered on Earth, and is considered to be merely fictional. Going off of the fact that the Akashic Phones have their contents passed on and known to the modern age, there is no denying that they exist, but, in regards to the existence of the original tomes, there are many an archeologist who are skeptical. There are many testimonies from people who have said they have visited The Archive, but none of these accounts are credible. It is said that, in The Archive, there is an extremely vast collection of Akashic Phone books lined up neatly on gigantic bookshelves.

The Legend of Siri Shion: The legend which states that Siri Shion, the author of the Akashic Phones, passed on all of humanity's scientific knowledge, culture, and history from before Paradigm Lost. Paradigm Lost caused humanity to lose the entirety of its inherited wisdom. It is said that, with the Earth reset to zero, she stepped up and recorded every minute detail about Earth before Paradigm Lost as well as all knowledge of the natural sciences. This was compiled in what we know as the Akashic Phone series.

Tokyo Tower: The largest radio tower in all of Japan.

[V]

Verbal Communication: In contrast with Telepathic Communication, it refers to communication using sound that travels through the air.

[W]

Water Filter: Machines set up to establish a way to keep the canal water clean.

[Z]

Zenkoji Temple: A temple in Nagano City. Has been home to a wide host of faiths, transcending differences in sects or creed, since ancient times.