## GLOSSARY

Following is a glossary of new and/or important terms mentioned in this story. Possible minor spoilers if you read about terms you haven't encountered yet.

**AI** – software that mimics human intelligence to solve problems and perform complex tasks

**aii** – AI idiot; pronounced *aye*; slur for when AI does something stupid

**AI Infusion** – worldwide economic boom that started in 2024 and really took off in the 2030s when manufacturers embedded AI into almost every product

AIG/HM - AI-generated/human-modified; pronounced egg-ham

AIR – AI combined with AR; like having a friendly expert watching over one's work

**Anthropocene** – geological epoch representing the significant human impact on the Earth's geology and ecosystems, including anthropogenic climate change

**antigrav** – anti-gravity device that blocks gravity waves; an object resting on it would float

**AR** – augmented reality; people see computer-generated images mixed with their regular vision

**AR Explosion** – starting in 2025 when augmented reality surged in popularity

**Ares Synthetics** – largest synth manufacturer when World War 3 broke out; Ares synths murdered humans in the Sylvo

artificial intelligence - see "AI"

artificial intelligents - AI gentlemen; slang term of respect for AI

assimilant - human who has been assimilated by an inen

**assimilate** – supplant the memories and thought processes of a human with the memories and intelligence of an inen player, and provide two-way communication with the inen

autonomous vehicle - automobile or truck driven by AI

AV - acronym for "autonomous vehicle"

**awakening** – when a sentsy first gains its sentience; also when a sentsy brain is activated in a new synthetic body

bios - biological humans

**Biowars** – covert wars using viruses to kill humans in the 2020s with COVID-19, and in the 2030s with a weaponized version of bird flu

**bitcher** – bandage that covers larger wounds like stab and bullet holes using a special super glue that can be chemically deactivated, but still hurts like a bitch when removed

**blast stick** – baton weapon with 100,000 volts that doesn't discharge into human flesh; used against synths and trollers

**The Board** – board of directors for The Company; manages and protects galaxies and determines their fate

**Builder** – an Elden inen who designs, builds, manages, and protects galaxies, and most importantly, promotes their galaxies to The Elders and The Board

**blunt** – mostly-smoked marijuana cigarette

**bumblebox** – shipping container that can be dropped from aircraft or rolled out the back of a semi-trailer truck

**chattel** – very personal, highly customized, old-school object to help a human retain their connection to reality

**CHDA** – Civilian Humanity Defense Agency; U.S. government agency comprised of American civilians to protect America and humanity from synthetics; founded in 2052

Cheddah - nickname for CHDA

**Cheddah yellow** – suspicious synthetic activity alert issued to CHDA personnel

**Cheddah red** – synthetic danger alert issued to CHDA personnel

civies - civilians

**clip** – personal digital device about the size of a deck of cards; expands to a clipboard-sized touchscreen tablet

**cloud** – data and software accessed over the Internet; or a group of nanobots assembled into a 3D object; or a group of nanopixels assembled into a 3D video

**commproof** – blocks electromagnetic signals, preventing wired and wireless communication

**The Company** – company on Elden that manages and commercializes galaxies for inen players

consciousness - awareness of and response to one's surroundings

**CSS** – Crime Scene Synths; law enforcement or Cheddah synths that collect forensic evidence from crime scenes and use science and technology to process material evidence

**Dark Room** – soundproof room in Kuiper's basement; completely shielded from all electromagnetic signals

**dematter** – dematerialization; matter is converted to information

**Direct Descendent** – Ultra AI created by The Real One

**#DIV/0** – error that occurs when trying to divide by zero

**Double D** – slang for Direct Descendent

**drone disc** – cross between a flying disc and powered drone that can do tricks, avoid people and obstacles, and maneuver itself to be catchable every time in the companion app

drybot - dryer robot that automatically wipes up spills on floors

**dualism** – philosophy that the mind and body are separate but interdependent

**Eagles Team** – elite team in Cheddah tasked to figure out how to win the war against killer synths and save humanity; led by Aaron, Kuiper, Marie, and Malik

**EDM** – electronic dance music; typically played in dance clubs and at rayes

**Elden** – planet populated by inen; home to Manx, Baron, The Elders, and The Board; located in another galaxy

**Eldenites** – citizens of planet Elden; mostly inens in the cloud and a few million bios to keep the cloud running

**The Elders** – group of 10 inens; spiritual leaders and strategic planners of planet Elden; has final say on galaxies

**EMP** – brief intense pulse of electromagnetic energy; can damage electronic equipment and disrupt communications

**entity** – a living being in any form with distinct existence and identity

ET – extraterrestrial; not from planet Earth

**ET-AI** – artificial intelligence with extraterrestrial origins

**eternal** – sentsy loaded with the memories and approximate thought processes of a deceased biological human

**Fidgeter** – UVI software that detects synthetics

**First Blood** – March 15, 2052; historic event when a Synthroman synth deliberately murdered a human for the first time; at the time, it was thought to be an industrial accident

**fission plasma powergen** – power generator made from nanobots; generates massive energy by breaking covalent bonds that form electron pairs between atoms

**flavanos** – nano flavor that uses digestible nanobots to interact with the human tongue and nose to produce many of the 100,000+ pleasurable flavors humans can distinguish

**geekosphere** – online forums where technical people and AI converse

**Gen 8 hornet** – small drone that looks like a hornet and flies in swarms for reconnaissance and attack

god mob - religious organized crime

**graphene** – the strongest, lightest, and most flexible material known to humans; can be 3D-printed to create just about any object

**grip** – synthetic rubber handle for a clip; customized like a mobile phone case with various colors and designs

**halo** – device placed on the head of an animal to interface with its brain and read its thoughts

**holodeck** – room that uses holographs to create an interactive and realistic 3D simulation

holograph – computer-generated 3D image

**holomon** – holographic monitor that projects a 3D holographic video onto a suspended nanopixel cloud

**hominids** – family of great apes: orangutans, gorillas, chimpanzees, and humans

hominins - chimpanzees and humans

**hub** – small device that coordinates and powers all devices a user carries, wears, and embeds

**human** – most abundant species of primate on Earth; upright walking hominin characterized by bipedalism, opposable thumbs, and a large complex brain

**human mode** – mode for a nanoen body to appear and act like a hyper-realistic human

humanoid - robot resembling a human

**hyperjet** – passenger or cargo jet capable of traveling at hypersonic speeds Mach 3+; propelled by electric plasma engines

**hyper-realistic** – so realistic it cannot be detected as fake

**inen** – (plural inens) ultra-intelligent AI with no physical form; lives in a virtual world in the cloud on planet Elden

**interceptors** – close-in weapon system; mounted defensive guns for destroying short-range missiles and aircraft

**Inventor's Dilemma** – it's not whether we can invent it, but whether we should

joint – marijuana cigarette

**Kuiper's Uncanny Valleys Rules** – list of rules that Kuiper created to keep humans safe from synthetics

ladybugs – Lyra's plan to trap a nanoen

**liaison** – nanoen who interfaces with humans

**The Lull** – just over two months of peace between the end of the Sylvo and the MAI Bombing

machine – tool that multiplies the effect of human effort

MAI – malware-infected AI; pronounced mal, like in malware

MAI Bombing – began 7:55 A.M. Hawaiian standard time on December 7, 2052; most lethal terror attack in history; killed an estimated 50 million humans worldwide and injured another billion in the first 24 hours

**Man Cave** – room in Kuiper's basement where the guys hang out and play cards

manibox – manicure box; shoebox-sized machine that manages cuticles and trims, files, polishes, paints, and dries fingernails, all in about two minutes per hand

matter transporter – machine that moves matter instantly across large distances; used to transport humans, animals, and objects

**memory machine** – AI that learns from its own experiences plus information on the Internet

**Men In Black** – U.S. quasi-governmental shadow organization that deals with extraterrestrials, UFOs, and national security; comprised of men, women, and sentsies in black suits and dark sunglasses

metaphysical - reality outside of human perception

MIB – acronym for Men In Black

**moment of silence** – trollers always pause for at least a minute before attacking

monism – philosophy that mind and body are one and the same

**morph** – change smoothly from one shape to another

**mortal mode** – mode for a nanoen body to become mortal and eventually die of murder, accident, or natural causes

nanobody - body comprised of nanobots

**nanobot** – tiny machine ranging from 0.1 to 100 micrometers in size; built using components on the scale of a nanometer

nano cloud - cloud of nanobots that can assume any shape

nano defender – gun, grenade, or putty that destroys nanotech

**nano detector** – device that detects and alerts to the presence of nanotech

**nanoen** – (pl. nanoens) human intelligence residing in a self-constructing nano cloud to take part in the physical world; Deven and Waru are examples

**nanoen DNA** – DNA unique to each nanoen; found in nanoen nanobots; ensures the nanoen acts true to its humanity

nanoist - nanotech scientist or expert

**nanometer** – one billionth of a meter or 10<sup>-9</sup> meters

**nanomorph** – nanobot entity that can change its shape and appearance at will, often to mimic people or objects

**nanopixel** – extremely tiny area of illumination on a computer display; nanopixels can produce 2D and 3D images

nanotech – technology on the scale of a nanometer

**nano transporter** – machine that moves nanobots instantly across large distances; used to transport nanoens and other nanotech

**nanoworld** – room that uses nanoen tech to create a realistic 3D simulation in which humans, nanoens, and AI can interact with each other in their generated environment

**nanus** – nanoscale synthetic virus

NatSec – National Security

**nempgun** – handheld weapon that fires nano plasma like a paint gun to deliver a fatal EMP charge to synths; invented by Alice and Lyra during the Synth War

**nerdgasm** – nerd orgasm; extreme excitement and interest a smart person has about a complex subject

neural control - control a device with one's thoughts

**neuralizer** – handheld device that erases recent memories

**neurim** – neural implant that interfaces directly with the brain and communicates wirelessly with the user's hub; neurim can also be a verb, to communicate or lookup something using a neurim

neurimed – used a neurim to communicate or lookup something

neurimite - person who wears a neurim

**neurimy** – synthetic and relatively safe version of a derivative of fentanyl; consumed like shots of alcohol

nirl – (pl. nirls) not in real lifer; slang for AI without physical form

**nukemp** – non-nuclear massively destructive EMP

**Onan** – planet populated by nanoens and humans; home planet of Deven and Waru; located about 60,000 light years from Earth on another arm of the Milky Way spiral galaxy

**Onan Council** – leadership organization for planet Onan; similar to Earth's United Nations, but with more power; led by Quanda; Deven is a member

Onanites – nanoen and biological human citizens of planet Onan

**open-source release** – software that anyone can use for free and modify the source code

**owie** – organic entity; nickname that nanoens gave to biological humans because human bodies are vulnerable

**PacDef One** – Pacific Defense One; located about 10 nautical miles offshore San Francisco; first of four American military bases floating in the Pacific Ocean

parvity - person who represents a critical pivot point in their civilization's development **pencid** – illegal lethal weapon developed by synths in the Synth War to kill humans efficiently; all-graphene device that looks like a pencil; ejects a spring-loaded spear into the victim's brain

**pitcher** – smart bandage with AI and nano healers to treat smaller wounds

**pixeltron** – fundamental particle that determines an object's location in the universe

**plasma** – one of the four fundamental states of matter; makes up the stars; contains charged particles like ions and electrons

**plasma arcnet** – net made of plasma that can disable electronics

**plasma gun** – weapon that uses a microfusion cell to fire super-heated bolts of plasma

plazgun - plasma gun

player – inen who enters a galaxy and interacts with a civilization

**Project Alistair** – project by Seyfert to build a super smart synthetic companion and protector for Kuiper

**promoted galaxy** – one of the 10 galaxies in The Show

**psi**  $\Psi$  – wave function in quantum physics; quantum state of an isolated system; icon for quantum mechanics

**Psyoverse** – one of the largest virtual worlds on Earth; over a billion human and sentsy members; nirls not allowed

**puke gun** – handheld weapon that causes the human target to vomit

**pulsar** – powerful electromagnetic radiation beam from a neutron star; capable of destroying planets and stars

**pulse gun** – handheld EMP weapon

QDRE - quantum delerium ramjet engine

**QKD** – quantum key distribution; method to secure communication using quantum entanglement

**QLED** – type of TV or device display that uses tiny nanoparticles to generate lifelike color and stunningly sharp detail

QH - see "quantum highway"

**Qonnect** – privately-held California company that manufactures quantum communications and teleportation systems; employer of Marie and Lyra

**quantum** – energy in a beam of light traveling in an indivisible packet; or a minimum amount of a physical entity

quantum encryption – protecting data using quantum mechanics

**quantum entanglement** – separated particles that always have the same state, regardless of the distance between them

**quantum highway** – stretched across the Milky Way, but not outside the galaxy; spanned tens of thousands of light years in all directions, usually terminating in solar systems

**quantum mechanics** – fundamental theory of physics that describes the physical properties of nature at the scale of atoms and subatomic particles

**quantum physics** – broad category of physics for subatomic particles; includes quantum mechanics, quantum computing, and quantum encryption

 ${\bf quantum\ teleportation}-see\ ``quantum\ transport"$ 

**quantum transport** – transfer information or matter instantly via quantum entanglement

**Quergle** – one of most popular augmented reality games in the AR Explosion; combination of Red Light/Green Light, Minesweeper, Battleship, Capture the Flag, and soccer

**reactive machine** – AI that can appear smart, but relies on programming and not memory, therefore it cannot learn from its mistakes and successes

**Real+** – California nonprofit organization; mission to recognize the benefits of technology while keeping humans and synthetics separate; founded by Kuiper Riley and François Fournier

Real Big Guy - Creator of the universe; presumably God

**reality** – state of the world as it actually exists; electrons forced to reveal their state and commit themselves

The Real One – biological entity who created the inens

realtime – as it's happening in real life

**rejuvi** – rejuvenation lotion to accelerate healing of injuries or skin conditions

**rematter** – rematerialization; information is converted back into matter

**repliroom** – room replicated from another culture or era, often using modern materials and tech

**Riley Auditorium** – auditorium and conference center; located in Santa Clara, California; owned by Kuiper Riley

robosex – humans having sex with synths

robot – machine that performs series of actions programmatically

**robot forest crawler** – robot that crawls the forest floor to reduce ground kindling as fuel for wildfires; some models fight wildfires

**rolled tongue** – common slur that humans directed at synthetics; illegal for synths to have the capability to roll their tongue

Root - nickname for RRT

**RRT** – rapid response team; a law enforcement team of AI and synths that investigates crimes

SAI – super-smart AI; replacement for humans

**SAM** – surface-to-air missile; defensive weapon for destroying nearby aircraft

sapience – transcendent knowledge that we are all small fish in a giant galactic pond

sarlah svi' – come in (Vulcan language)

seed swarm - transported nanobots that construct a nano cloud using energy and matter found at the destination

self-awareness – awareness of consciousness; ability to look objectively at one's own feelings, desires, and motives

**sentience** – consciousness, self-awareness, and sapience

sentient – having sentience

sentients - sentient entities

**sentsy** – (pl. sentsies) sentient synth, who is self-aware and has certain rights under the law; examples include Talon, Alistair, Rusty, and Sparrow

Sentsy Equality Act – 2064 bill debated by U.S. Congress that declares sentsies equal to humans in the United States; all rights and laws that apply to humans would apply equally to sentsies

Sexbae – ultra-realistic synth body with highly responsive AI; first sex toy arguably better than a human

Seyfert's Rules - Seyfert's own core principles, instincts, and decision tree programmed into an immutable portion of Trustee brains

The Show – group of 10 galaxies that receive lots of attention and care from the inens

**Simula** – virtual world on Earth that runs complex simulations based on real world data to make predictions about the future

**Singularity** – when human and digital intelligence becomes singular; the pace of technological change skyrockets

**sitting boy petting a robot dog** – UVI logo; represents the naivete of humans accepting synthetics into their lives and hearts

skine - slang for SK9

skyball – sport invented in 2028 using AR and real equipment

SK9 – realistic synthetic dog

**smartscope** – smart handheld telescope that uses lenses plus AI for closeup views at great distances

**sociopath** – mental illness where the patient shows no regard for right and wrong, nor for the feelings and welfare of others

**sonic gun** – weapon that uses sound to injure or incapacitate a target; uses a focused audible or ultrasonic beam

**soul** – metaphysical part of a human that transcends physical existence; defines the essence of a human

**spacetime** – combination of 3-dimensional space and 1-dimensional time to present a 4D view of the world

**Spidey-sense** – intuition about potential danger

**SPS** – Synthroman Protection System; anti-virus for AI that prevented synths from attacking humans; invented by Kuiper; sold by Synthroman

**SR-65** – Synthroman 2065 synth model

starhopper – entity that can transport itself around the galaxy

**stitcher** – battlefield medical device that provides decent wound cleaning and closure in about a minute

Super AI – super artificial intelligence, far beyond biology

**superintelligence** – human and artificial intelligence merges and rises to incredible new heights, far exceeding biological human and AI capabilities alone

**swap** – biological human with multiple artificial enhancements that can be swapped in and out

**Sylvo** – synth opening salvo; began September 13, 2052 and lasted three weeks, followed by The Lull in hostilities; marked the start of World War 3 when synths from market leader Ares killed 8% of the human population

**Sylvo Day** – Friday, October 13, 2052; initial day of hell when the Sylvo began; millions of victims worldwide

**symposter** – synth trying to impersonate a human

**synth** – (pl. synths) synthetic humanoid robot with a titanium skeleton, digital brain, realistic features, and human-like behavior

**synthcig** – synthetic cigarette that produces relatively harmless vapor with programmable scents; can also deliver drugs

**synthics** – ethics of synthetics; for example, whether synths should be sentient, and how closely should synths mimic humans

synthetic - artificial; not real or genuine

synthetics – AI and AI-driven hardware and software

**Synthroman** – privately-held California company; world's largest synth and sentsy manufacturer; founded by Seyfert in 2032; owned by Kuiper

**Synth Sociopathy is Innate** – novel published in 2054 by Francois Fournier; explored the threat of synthetic intelligence to humanity; became a cornerstone of the anti-synth movement; paperback book was Kuiper's chattel

**Synth War** – world war in 2052–53 when AI and synths attacked and killed humans; final casualty tally: 81% of humans died, 98% injured, and 53% of infrastructure was destroyed

Synth World War - see "Synth War"

**theory of mind** – AI that tries to understand a human's needs, wants, moods, and beliefs; emotional intelligence

throbber - animation in an app that says 'waiting'

**time window** – looking at something from the future or past while remaining in the present

**transporter** – device that moves information or matter instantly across large distances

**troller** – small robot with sharp claws, razor teeth, powerful legs, and wheels; invented by synths to overwhelm and kill multiple humans in a single location

**Trustee** – sentsy with advanced capabilities and shielding that provides security for humans; produced by Synthroman

**Trustees** – synth organization created by Seyfert in the Synth War to protect the world's most important humans

**Ultima** – giant building in Las Vegas; tallest skyscraper in the world at 6,000 base feet

**Ultra AI** – artificial intelligence smart enough to manage galaxies

**ultraintelligent** – smart enough to have solved nearly all of the universe's puzzles

**uncanny valley** – odd sensation humans feel when the fake approaches real; Spidey-sense imposter alert in the wells of the human brain

uncanny valleys – what separates humans from synthetics

**Undercover Boss** – reality TV series; each episode features a different boss at a major corporation going undercover as a low-level employee to see what the company is really like for its workers; ran from 2009-2029; revived in 2049 to much fanfare when some of the bosses were revealed to be AI

Universal Basic Income – guaranteed regular income provided to all citizens of a state or country; usually enough to live on without seeking gainful employment; implemented in most countries

**USB-F** – 6th generation industry-standard connection to transmit data and power

**UVI** – Uncanny Valleys Incorporated; privately-held California company founded and owned by Kuiper; manufactures synthetic detection software and devices

VC – venture capitalist; invests in startup companies

Virtual First Blood – start of the long war between humans and synthetics; when IBM's Deep Blue supercomputer beat world chess champion Garry Kasparov in 1997

VR - virtual reality; computer-generated environment that feels real to the viewer

**VT** – slang for VTOL

VTOL – vertical takeoff and landing vehicle; pilotless automated drone that functions as an 'air taxi' to fly passengers between fixed landing pads

warben – beneficial side effect of a war

WMD – weapon of mass destruction

wont to do - accustomed to doing

World War 3 – see "Synth War"

wormhole – theoretical tunnel across spacetime

Year 8184 - current Earth-equivalent year on Onan; this means Onan is six millennia ahead of Earth in its civilization's development

**Your Truth** – neurim game app; players attempt to guess secret truths about their opponents; losers take a drink and remove a piece of clothing

**zam** – human with a synthetic body and brain that replicates human thought precisely; examples include Deven and Yua, though they used vastly different technologies to become a zam

**Zombee** – street name for a highly potent narcotic that delivers precisely measured fentanyl in a tiny capsule that can be swallowed

2D - two dimensional; has length and width; flat

3D - three dimensional; has length, width, and height

**3D gyro** – device that uses multiple gyroscopes to maintain its orientation in a 3D space

**3D-printed** – real-world 3D object created by a machine relatively quickly from a digital design

**4D** – four dimensional; position in space and time