

End of Utopia

The holoscope in the center of the commons area projected the image of a campfire. Lydia saw something like it in one of the old video downloads and thought it looked pretty neat. A bunch of the local kids sat on the smartfoam benches, listening to the elder Binome tell stories of the time before. Only Iran sat aside, as skeptical as always.

“. . . and that is why you must always avoid those areas proscribed by the monitors,” Binome concluded, “for none can witness their secrets and remain herself.” Iran snorted. As usual, the elder’s story offered much instruction and little understanding. She decided that tonight would be the night she finally tested how much the old fool really knew.

“Elder Binome,” she called, with all the sweetness and innocence her 14-year-old voice could muster. “Why is it that the world has so many empty rooms?” It had been bugging her for quite some time.

Binome looked at her with faint distaste. The girl was a habitual troublemaker and needed to be knocked down a peg, but before he could reply to her insolent question, Lydia jumped in.

“What a stupid question,” she said, “you might as well ask why there are downloads or food shipments, or where the fluorescent lights come from or why the trams run from one village to the next.”

“Actually-“ Iran started, but the elder interrupted her.

“No Lydia, it is a good question, even if it was motivated by an unseemly spirit of inquiry. The empty rooms belong to our ancestors. When the Great Computer downloads their spirits from the network and gives them new physical bodies, they’ll need some place to live, won’t they.” The children seemed satisfied by this explanation, though Iran was not convinced.

“Are you sure it’s not because there used to be more people than there are now?” she asked, this time not so sweetly.

“You mean,” Binome replied, “do I think the reason there are ten empty rooms for every occupied one is because there used to be ten times as many people?” He paused to let the absurdity of that notion sink in with his audience. “No, I don’t. I think you’d have to be crazy to believe such a thing.” The children laughed, but Iran didn’t let that stop her.

Almost crying with humiliation, she yelled, “Well, I read in the archives that before people built the Computer –“ It was the wrong thing to say. She knew as soon as she saw the frozen faces of the other children that this was the wrong audience for that kind of speculation. When Binome next spoke, he was literally red with anger.

“Listen, *child*, despite what certain unverified downloads might suggest, people *did not* build the

computer. *Understand?*”

Though it went against everything she believed in, Iran nodded agreement.

“It looks like some of us could use a refresher in basic philosophy, right?”

“Yes, sir,” she said, seething.

“It is clear from logic that either people created the Computer or the Computer created people, isn’t that right?”

“Yes,” the children chorused.

“It is also clear that the Computer is the greater and people are the lesser, right?”

“Yes,” said the children.

“Well . . .” said Iran.

“What was that, miss?”

“I’m just not sure --“

“Oh,” said Binome, “little-miss-know-it-all isn’t sure.” The children laughed on cue. “Answer me this then, child: can you move a tram?”

“No,” said Iran.

“Well then, can you make food for us?”

“No, sir.”

“Can you, in fact, do anything the computer cannot?”

“I can think,” she said, without thinking. The shocked silence was answer enough, but Binome salted the wound.

“Can you,” he asked, dripping irony.

Iran thought she was angry before, but hearing that from the world’s biggest idiot introduced her to new levels of fury. “Yes, I can,” she shouted, “and I happen to know that the archives say the Computer was designed, *designed*, not to be able to think, even though the people could have made it do so.”

Binome was almost as angry as she was. “So,” he said, “you think people could create a mind?”

“Yeah, it’s called having a baby.”

“You’re very proud of that, are you? Even though everyone knows you have to ask the computer’s permission to have a child?”

“If we really need permission, why does the baby come out of a woman instead of from the shipping tube?”

“I don’t claim to understand all the mysteries of the Creator.”

“Yes, you do.”

“No, I only claim to understand more than you. If you’re really so confident in your ability to create a mind, perhaps you could explain how it’s done?”

“I . . . I . . .”

“Even the simplest baby or searchbot will do.”

“. . .”

“I didn’t think so. So unless you have any sudden revelations, I think we can agree that the Computer is the greater.”

“Yes, sir.”

“Good. So, what makes more sense, that the greater should bring forth the lesser or that the lesser should bring forth the greater?”

“That the greater should bring forth the lesser, sir.”

“That’s what we’re taught, and that’s what we believe. Don’t feel so bad about getting confused by the archives. Some of them are very old, and not all of the words mean the same thing now as when they were written. Shall I tell you the true story of how the world was made?”

“Yes,” said the children.

“Very well. Fifteen thousand years ago, the Creator was floating through space when he spied the great, round sphere of the Earth. And he said to himself, ‘this place will make a fine home for the race I plan to make.’ And so he commanded his angels to build for him a house upon the Earth.

“Now, in the old language, this house was called the Computer, though, of course, that’s the word we now use for the Creator himself. When the Creator’s house was built, he, along with the help of his angels, made the world as we know it, and filled it with people.

“When the work was done, the angels, who were then called ‘humans,’ departed for reaches unknown. And the first people, who envied the humans, took for themselves the name of the angels and claimed that they did not depart, but died, as all people do. And the Computer, in his mercy, allowed the people to cleave to their folly.

“And so it came to pass that the first people took up the tools of the angels, but being not of the Creator, but from him, could not duplicate the magic of the humans. That they were not of the same stock as the departed was proven when the people could not recreate their wonders.

“The children of the first people learned their lesson, and recanted the heresy of their mothers. And so they lived in prosperity, under the guiding plan of the Computer.”

Iran had heard the story before and it still struck her as false. She decided to try one more time. “But what about the archives that claim to be from before the computer?”

Having sensed his victory, Binome replied, not unkindly, “Fiction. Entertaining stories made up by the ancients to pass the time. Surely you don’t believe all the archives are real? Why not ask about *The Little Mermaid* or the *Battle of Midway*?” He laughed briefly at his own joke. “Really girl, where would they have gotten all the water?”

“Outside the walls,” muttered Iran.

“I’ll just pretend I didn’t hear that,” Binome offered generously. And the flickering of the holographic campfire shed its light into the primeval emptiness.

The Setting

It’s the far, far future. Mankind has finally conquered poverty and want. The ancients built for themselves a perfect closed system of self-replicating factories and autonomous industrial robots, controlled by an artificial intelligence the experts swore would never turn against humanity. Heady with self-congratulatory praise, they said it would last ten thousand years.

They were wrong.

It lasted fifteen thousand. Without so much as a glitch. The inevitable breakdowns were so smoothly repaired that the population never even noticed. The controlling artificial intelligence never developed a personality, let alone tyrannical ambitions. The mining-bots extracted minerals so efficiently that marginal veins lasted centuries longer than projections said they should. Recycling, solar power, and farsighted management kept the consumption of resources to the barest minimum.

It was the most successful engineering project in human history, and now it’s coming to an end. The mines are tapped out, recycling is at peak efficiency, and small but critical shortages of key resources are forcing the computer for the first time to choose between filling orders and making crucial repairs. Being essentially servile in nature, it chooses to obey.

Only to the very knowledgeable is the desperation of the situation clear. The computer is so good at what it does that basic services will probably continue right up to the point where the system fatally and irretrievably crashes. Even now, key facilities are being cannibalized to provide working materials for other key facilities. The Earth's five billion population is being shepherded into a smaller and smaller space, so their former homes can be torn down for their mineral content.

Diagnostic readouts in the world's capitals tell of disaster, of total collapse within the century. Unfortunately, there is no one left to read them. The factories have existed for well more than half of recorded human history. Entire civilizations have sprung up and faded away within the climate-controlled walls of the continent-spanning mega-arcologies. Science, mathematics, engineering, and economics have been totally useless for 500 generations. Even if the reports were read, nobody lives who could understand.

Humanity, sheltered and coddled for so long, will have to wake up, fast. This is where you come in.

Roleplaying Games

End of Utopia is a role-playing game. Existing in the limbo between improvisational theater and cooperative storytelling, it is best described as a play without a script, stage, or audience (so really, nothing like a play at all). Players are the "actors" (who really require little to no acting ability, go figure) who create characters who will explore and adventure within the fictional world of 17,500 AD. The Game Master is like a combination of director, set designer and drama critic (i.e., a very annoying and controlling person, unless she turns out to be nice after all), who creates the settings, plots, villains, and minor characters for the players to interact with. It's all very confusing, until you get it. Then it's easy.

The Basics

These simple sentences should help to create a simple picture of the world of End of Utopia. Many of these points will be covered in greater detail later on.

- Machines do all the work
- People have nothing but leisure time
- People live their whole lives indoors
- Any manufactured item can be had by any person who's willing to wait for it to be made
- An artificial intelligence controls the whole system
- Machines obey people who know the proper passwords
- Except for computers, robots, and brain science, technology is not too far ahead of today's
- People can be fitted with cybernetic brain implants, but most don't
- Most people view technology as magical and worship the computer as a god
- All art, history, entertainment, and technical knowledge is available for download
- Most people don't bother to study
- Population decline means most of the arcologies are empty

Most government is local, tribal, and totally unnecessary
People accept the state of the world as natural and don't understand that it was made
People with the right implants (called monitors) can bond with the computer network
Only the monitors really know what's going on (and them just barely)

The Computer

The World Industry Regulating Intelligence (WIRI) was built to take the guesswork out of planned economies. Capable of simultaneously sorting through the yearly, quarterly, monthly, and daily needs and desires of 75 billion people and the production capabilities of a billion and a half factory-sized industrial robots, WIRI's algorithms so efficiently matched supply to demand that it silenced all but the most conservative of its critics.

WIRI is a powerful artificial intelligence, but it was never designed to emulate human intelligence. It is utterly devoid of personality, having only knowledge and decision-making ability. That's not to say it can't seem like a person at times. Fifteen thousand years of serving humanity have taught it to anticipate the sometimes mercurial whims of the human community, and it is not above using its productive capabilities to influence market trends if things seem to be heading in an unrealistic direction.

Though many people worship it as a god, the world computer has no notion of either rulership or divinity. As far as it's concerned, the world consists of endless cycles of resources → energy → production → shipping → consumption → recycling. For all its vast intelligence, it exists only to optimize that chain of events.

The Ordering Economy

Work is a totally foreign concept to the people of the 176th century. As far as they're concerned, food, clothes, toys, and sundry household items all come on a little cart that drops them off every morning. Food arrives daily and the other stuff might take a couple of weeks, but all they have to do is ask for it and they'll get it eventually.

And aside from the millions of robots, working 24 hours a day, far from the public eye, it really is that easy. Inside every dwelling space is an electronic tablet that's wired directly into WIRI's optimization programs. Using voice commands or the attached stylus, the resident need only make a list of what he wants and the computer will deliver the goods as quickly as possible (given factory output, existing stock, consumption patterns, and other abstruse criteria). Common items arrive faster than rare items and necessities arrive faster than luxuries, but all in all it works fairly smoothly.

The computer-controlled factories are capable of producing just about every consumer good, tool, or piece of art ever conceived by the human mind. The only limit to what a person may order is what they are capable of asking for by name. Since over 95% of WIRI's product templates are things with little to no use in everyday life, most of the product names have been forgotten over the years, making the names of interesting, but forgotten products valuable commodities in and of themselves.

The Network

When the ancients redesigned the world, they took the archaic Internet, telephone, and television systems and integrated them into a single home computing device. Since that time, every book ever written, every movie ever filmed, every song ever recorded, and every piece of software ever produced have all been available at the touch of a button.

That was 15,000 years ago. In the intervening millennia, human beings have continued to produce creative works, and anyone with even the slightest pretensions to artistic talent has immortalized his creation by uploading it onto the network. For thousands of years, the art created after the network has outnumbered that created before.

The tragedy of this is that most of art created after the institution of the world computer is completely awful. Freed from the prospect of lives filled with toil and deprivation, most people lost the capacity for deep reflection that great art requires. There were a few, rare gems created in the post-computer era, but they were inevitably buried under mountains of crap.

This means that even though anyone can download anything from the planetary archives, finding works of genuine value is almost impossible. Historical knowledge is particularly difficult to find, as later generations obsessively recorded the details of meetings, elections, and legislation that had no serious meaning whatsoever, flooding the historical archives with incalculable volumes of indecipherable minutiae.

The Superstition of Science

For longer than anyone can remember, human beings have lived in an artificial environment. Polymer walls enclose air-conditioned cities connected by sealed magnetic trains and fed by robot-grown produce. As far as anyone living is concerned, this is the way things have always been. Nature is a closed arcology controlled by an omnipresent machine intelligence. Though textbooks exist that could correct these misconceptions, no one has bothered to read them for over 10,000 years, and now, even the names of the fields are forgotten.

When it comes to the practical knowledge of living, the ancient techniques are still practiced, but few, if any, could explain with accuracy just why they work. A doctor still knows to prescribe penicillin, though he may well believe the medicine works by sending in tiny angels to fight the sickness demons. The leader of a community might know the passwords that open and close the local doors, but he most likely believes them to be “magic words.”

Everywhere and in every field, tradition and rote have replaced genuine understanding, often with the result that efficacious techniques are obscured by the associated rituals that have accumulated over the centuries. Occasionally, someone will stumble upon an electronic textbook or artificial tutor that explains to him the real truth of the field, but even if the knowledge is successfully understood, it is rarely believed (and almost never adopted) by the community at large.

The Artificial World

Before the world computer was built, humanity lived in a time of massive unemployment and

booming populations. While they knew WIRI would solve the first problem, they didn't think it could do anything about the second, so they planned for expansion. One of the world computer's first tasks was to build arcologies, massive city-sized buildings, capable of housing a mega-dense human population.

It eventually built enough housing for 65 billion people, though only about half of that was ever used. The rest stood empty, waiting for a population explosion that never came. Eventually the architects of the mega-cities died off, and the purpose of the extra space was forgotten. The computer dutifully continued to maintain the unused residences, and people came to use them as second homes, storage facilities, and recreation areas.

The arcologies themselves range from 20 to 50 stories tall and cover about 1/6th of the Earth's land area. About half the land area (and most of the coastal off-shore area) is devoted to the solar collectors, factories, mines, recycling facilities, and farms that make human civilization possible. The rest of the surface is left to lie wild, either for practical and ecological reasons (like the Amazon rain forest's crucial job of releasing free oxygen) or because the climate is too severe to be profitably exploited (like Antarctica).

Human settlements are separated by up to 400 kilometers of factory and wilderness zones and are connected by magnetic levitation trains that move between 100 and 250 kilometers per hour (depending on the length of the journey). For all but trans-oceanic trips, direct trains only run between adjacent cities, meaning that a person who travels long distances can plan on changing trains often.

Getting around inside the arcology is assisted by a countless number of elevators, escalators, robot trolleys, slow and fast horizontal people movers (conveyer belts), 24 hour monorails, and other motive conveniences.

Curiosity about the outside world is discouraged by tradition, but the computer does not forbid people from leaving the arcologies. If an adventurous explorer can find an unlocked ground-floor exit, he can leave at will. Most of these explorers are disappointed, however, as arcologies are invariably surrounded by miles of robotic industrial distribution hubs, suggesting that the outside world is merely an uglier and busier version of the one inside.

Machine Zones

In terms of land area, most of the world is controlled by machines, coordinated by the guiding logic of the WIRI. These machine zones (also called factory, robot, or computer zones) are exactly like the worst sort of industrial nightmare, except that no provision whatsoever is made for human safety or convenience. Most of the actual production areas are so tightly packed that a human couldn't even fit inside.

That's not to say a human being can't observe the factory floors, just that little to none of this surveillance is done in the factories themselves. Near the edge of every factory zone stands a telepresence monitoring hub (TMH). Every TMH is a suite of 20-30 rooms, including a communal kitchen and dining room, as well as two communal bathrooms. At the heart of every

TMH is the monitoring chamber that includes direct video, audio, and spectrographic feeds to every area of the machine zone (every arcology is surrounded by two to five machine zones, depending on geography).

About a century after the institution of the system, cybernetic virtual reality implants replaced on-site surveillance at the TMHs, a move that freed the monitors from being tied down to a particular physical location. From that point on, the TMHs served only as a secure area to perform the procedure and a convenient place for the subjects to recover afterwards.

Monitors

The humans who built the world computer did not completely trust it to manage the economy unsupervised. All it would take, they figured, was a single blown circuit or undetected software bug for the whole system to come crashing down. So, in the early days the operations of the machines were constantly watched by a group of professional technicians, known as the monitors.

At first, the monitors lived in the machine zones themselves, working long shifts of three months on and three months off. Eventually, VR interfaces replaced physical and electronic observation and the monitors could work from the comfort of the arcologies. Over the years, human civilization declined and like so many other things, the purpose of the monitors was forgotten.

For centuries, there were no monitors at all. The system continued to function perfectly and humanity at large was completely unaware of the disappearance of their back-up safety system. Then, one day, someone dared to enter the machine zones and, by some strange coincidence, found an abandoned monitoring hub.

What happened next was probably not a miracle, though no one in all the thousands of years since could explain how it happened. The unknown individual somehow managed to activate the autosurgeon, override its safety protocols, and command it to perform a radical and elective surgical procedure so obscure it was virtually unheard of at its time of greatest frequency. Then, as if that weren't impossible enough, the explorer topped the feat by managing to survive.

After that, the monitors have an unbroken millennia-long tradition that continued into present times. Part police and part prophets, the monitors play a complex role in human society. Though they lack the infrastructure to actually reverse a critical systems failure, their connection to the world computer allows them to understand the nuts and bolts of its functioning in a way few others can match.

Monitors draw most of their numbers from orphans and children abandoned by their parents, though they have been known to recruit those with exceptional technical abilities. Many people who wander into the machine zones are transformed into monitors as well, partly to keep them out of trouble, but mostly because it's expected.

Outwardly, monitors appear to be fully human. The only way to physically distinguish them is by the tiny, metal stud located at the base of their skulls. These provide the monitors with a wireless

virtual reality connection to the worldwide computer network, allowing them to interact with that network to an astonishing degree.

Most people find the monitors strange and alien, which is hardly surprising, as many of the oldest of their number have brains with a completely different structure than the baseline norm. To a certain extent, this feeling is reciprocal, although as monitors advance their connection, concepts of “alien” and “strange” become totally meaningless. The most powerful monitors are more machine-like than a machine could ever be.

Monitors view themselves as humanity’s last bastion of rationality and science, and that belief is almost justified. With their intuitive access to the world computer archives and their habit of recruiting the brightest, most inquisitive minds, the degeneration of scientific knowledge is less severe in their ranks than among the population at large, but it is not completely absent. A person who deified the world computer is not likely to change after becoming a monitor. In fact, quite the opposite is true. Many who undergo the transformation describe it as a religious experience and a number of computer cults are headed by low-power monitors.

Government

For the most part, government is unnecessary. The idea of competition between individuals for limited resources has been completely defunct for thousands of years. People still live in communities and so still require a means of resolving disputes, but those disputes are mostly personal, involving the intimate details of private relationships. For those crimes that occur (mostly physical assault, motivated by passion), local rules vary from the permissive to the draconian.

The most common sorts of punishment are exile (to another floor of the arcology or to another arcology entirely) and shunning (where the whole community refuses to speak with the criminal for a predetermined length of time, sometimes as long as her entire life). Mutilations are also common, the most severe being castration (for rape) or the removal of the tongue and hands, rendering ordering impossible without the assistance of long-lost computer programs (in effect a death sentence, unless the community is particularly forgiving).

The basic unit of organization is the arcology floor, usually containing between four and ten thousand people (though numbers as low as two hundred and as high as fifty thousand have occurred). In particularly large arcologies, the floor is often further subdivided into areas as small as four city blocks (usually housing no more than 500 people). Sometimes an entire arcology is united as a single political entity, though larger nations have not been seen since the centuries immediately following the institution of the world computer.

Government is most often a form of theocratic tribalism, where the oldest members of prominent local families (who might have reached that status by artistic talent, fantastic numbers of children, or a simple willingness to bust the heads of those who disagreed) form a council of elders, which hands down criminal judgements or statements of religious law (mostly ineffectual and unnecessary rituals to “appease the computer”).

Almost as common are anarchies, areas of the arcologies where people just want to be left alone and the largest associations are groups of three or four people who share some kind of familial or personal relationship. Criminal exiles and fugitives often find their way to these areas, making the assembly of local characters quite colorful (to say the least).

The final and rarest form of government is the “empire.” Cropping up every couple of decades, empires are usually started when a charismatic individual views a certain type of archive footage. Convinced he has to unify humanity to accomplish some vital goal (e.g. space exploration, religious worship, or even the overthrow of the computer), the putative emperor tries to impose an archaic form of government on a mobile and materially contented population. The most successful of these manage to briefly unify a single arcology, but most never make it that far.

Technology

As mentioned in “The Basics,” technology in the world of 17,500 AD is not too different from the technology of 2000 AD. For the most part, this is because, after the institution of the world computer, technological advance slowed, and eventually stopped. So, the devices and techniques available to the people of End of Utopia are the result of roughly 600 years of modest progress, rather than the notional advances of 15,000 years of technological evolution.

Artificial Intelligence

The greatest accomplishments of the ancient engineers were in the field of artificial intelligence. Geared more towards solving specific problems than replicating human consciousness, AI technology was, at its height, able to create machine intelligence that could, in its limited field, be much smarter than any human.

WIRI was merely the most ambitious example of that class of artificial intelligence. Medicine used AI programs to create custom tailored proteins and therapeutic retroviruses; space exploration used smart robots to conduct scientific experiments at the very edge of the solar system; and search-bots, AI programs created to sort through mountains of irrelevant websites, were ubiquitous and indispensable additions to any home computer.

After 15,000 years, most of these AI programs have fallen into long disuse. WIRI has replaced most of the important human-held supervisory positions with suitably advanced expert systems. The monitors still use search-bots to help them navigate the planetary archives. For the most part, though, people lack the requisite technical knowledge to make use of these relics (for example, even if a doctor could download a protein sculptor, the odds are long against him knowing what to do with it).

As far as the other type of AI is concerned, attempts were made. The appeal of creating a whole new type of consciousness drew computer scientists for decades and centuries after the institution of the world computer. The most successful attempts were made immediately before and immediately after, when the sophisticated knowledge of neural networks and cognitive science possessed by the ancients was most widely available.

The smartest human-imitative AI ever made was CHIP (computer habiting intelligence project),

who was about as bright as an above-average college student. CHIP could appreciate the arts and had an appreciation for coarse practical jokes, but was never as complex a personality as even the simplest human. Psychologists debated for years whether it had subconscious experiences.

Other programs in a similar vein had variable results, but generally topped out at producing minds that resembled a small child or a dog that had been taught to speak. A few remain active in the computer networks, their influence on human culture at best minimal.

Medicine

Few infectious diseases stalk the people of 17,500 AD. The ancients eradicated some of the worst offenders before instituting the world computer. After that it became much more effective to quarantine and sterilize. Using WIRIs resource management algorithms, the world leaders of the period moved infected populations into concentrated areas, let the disease run its course, then sent in the robots to clean and/or destroy anything that could spread the contagion. Within 50 years of such pragmatic (some would say ruthless) management, the sealed environment was more or less germ free.

The degenerative diseases, especially heart disease, had long been a plague on developed populations. The ancients' approach was mostly preventative, though tailored proteins and other advanced superdrugs played an important role. After 15,000 years, only the drugs survive, but any learned physician still knows enough to order them from the world computer.

Cancer was never completely cured, though scientists made great advances in using viral therapy to target tumor cells and the survival rate for quickly spotted cases was very high. While the techniques for treating cancer still exist, doctors' skill in diagnosing it has declined sharply. Among the majority of humans, cancer is the most common cause of death, usually striking between the ages of 45 and 60.

The treatment of injuries still followed the ancient cut and sew pattern. Drugs that enhanced the body's natural healing processes were used extensively, but they were useless without a properly set cast. Physicians still use the powerful healing drugs of the ancient era, but as often as not they simply cause the wound to heal around the basic problem.

Biotech procedures that actually improved health and physical performance were developed and used, but because they could have dangerous, or even fatal side-effects, if they weren't administered under strict medical supervision, they never became common among the general population.

All told, if every technique known to physicians at the height of medical technology were applied with adequate skill, a person's expected life span could be extended to as many as 300 years, and for two or three thousand years, that was humanity's average life span. Unfortunately, decadence overcame even that vital knowledge, and now only the most advanced monitors manage to survive into their second century.

Weapons

Given the interconnected nature of the global economies, even before WIRI integrated them for good, the pre-computer civilization did not devote a large portion of its efforts to military research. Of the research that did occur, tactical and strategic weapons dominated, followed by nonlethal weapons intended for civil and domestic policing tasks.

Few of the fast-attack jets, tactical dominance gunships, or autonomous drone tanks survived the 15,000 year peace, and WIRI, being essentially a civilian project, does not know how to make new ones. Those the elements did not completely destroy (because they were stored in climate controlled facilities) still need serious maintenance and replacement parts before they could be made functional.

Personal weapons, of which the gunpowder firearm was still the premiere example, are a different story. Given the correct police authorization code (ordering(c) difficulty 3), WIRI will manufacture and ship up to 100 at a time. The main advances made over 20th century models lie in better range, greater ammunition capacity, and integrated computer targeting systems. Some countries experimented briefly with magnet driven pellet guns (which were just as deadly as normal firearms, but could hold up to 150 shots in a typical pistol clip) and microwave weapons (using high-energy photons to literally boil someone from the inside out), but the advances in efficiency did not justify the increased cost.

Nonlethal weapons were mostly chemicals, some of which were quite sophisticated. Sealed in airtight containers, large stockpiles of these agents still exist in secure facilities in every arcology. Most of these chemicals are dangerous, but only deadly to the weak or overexposed (tear-gas and vomit gas are the most common of this type). The most advanced chemical weapons were the so-called smart gasses, which went inert if their concentration in the victim's blood stream became too high (to prevent accidental deaths). Some of the chemicals, originally nonlethal, have been stored in imperfectly sealed containers, becoming extraordinarily toxic as their safeguards decayed over the years.

Robotics

As with artificial intelligence, ancient robotics technology excelled at creating devices perfectly suited for specific tasks. The huge, automated factories and mining platforms were the ultimate expression of this philosophy, though the monorails, intercity trains, and delivery bots all qualify.

The ancients also built another sort of robot, the General Purpose Industrial Robot (GPIRs or, colloquially "Gippers"). Intended for factories that must frequently change their product output, gippers are the closest the pre-computer engineers ever came to making a true android..

Roughly 150 centimeters (5 feet) tall and boasting 4 appendages that can double as arms or legs, the gippers appear as short, blockish humanoids. Their outer carapaces are usually made of light, durable plastics, colored white, grey, or yellow (depending on the specific materials used in making it). Models intended for extreme industrial environments have outer shells of metal or ceramic, although these are usually ad-hoc modifications, rather than standard factory features.

Properly functioning gippers are under the direct control of the world computer, which uses them

to perform a variety of specialized tasks. Each unit is also capable of autonomous action, and most of the time, when one loses its connection to WIRI, it either continues its previously assigned task or reports immediately for repair.

Problems do occur, however. Unlike many of the ancients' creations, GPIRs are capable of developing a sense of identity and individual personalities. This is a defect and the result of component malfunction, but one that is intimately tied to some integral and deliberate design features. Gippers are capable of adaptive learning, to better accomplish the multitude of tasks they might be expected to perform. They are also capable of natural language interaction with human beings and each other. A relic of the time when humans directly supervised the automated factories, it was intended to allow for easier diagnostics of potentially aberrant processes.

While there is no danger of a general machine uprising (gippers are dumber than even the most indolent human), occasionally one of the older units will develop enough personality to abandon its post, and even, under the rarest of circumstances, pose a danger to human beings. This happens most commonly when a remote uplink to the world computer goes unrepaired for a significant length of time. With current shortages of precision parts, this is happening more and more frequently.

Cybernetics

Ancient cybernetics were limited, by and large, to therapeutic uses. Though the techniques for grafting artificial components onto biological systems were quite sophisticated, researchers could never surpass the efficiency and functionality of natural organs and appendages, at least not without exposing the subject to serious and prohibitive health risks. A prosthetic that performed exactly as well as its natural counterpart was considered an extraordinary success.

That said, the ancients were very good at creating prosthetics that approached natural utility. Hands, legs, eyes, hearts, and kidneys could, before the decline of human civilization, all be replaced with substitutes almost as good as the real thing. Other organs could be duplicated well enough to allow the subject to survive with regular medical supervision.

The cutting edge of ancient cybernetic technology was the artificial supplementing of the brain and central nervous system. Again, the primary focus was on repairing injuries, as few people wanted to undergo unnecessary brain surgery if there was nothing seriously wrong.

Resistance to elective procedures faded in the centuries immediately following the institution of the world computer, and at its height, cybernetics technology was actually capable of improving brain function with techniques like the monitor implant and the Symbion Brainbug.

Prosthetics, by their nature, could never be mass produced. Contemporary people who lose a limb, and lack access to sophisticated manufacturing and medical facilities (which is most of them) are simply out of luck.

The “Soft” Sciences

As evinced by the unprecedented success of WIRI, the ancients knew a great deal about

economics and were able to convert theoretical speculations into practical applications. The knowledge still exists, but is largely useless. A conventional economy has not existed for thousands of years.

Urban planning, ergonomics, environmental science, and management theory were also highly developed before the institution of the world computer. The arcologies, despite their massive size, have countless subtle design features that encourage personal comfort, small-scale community feeling, and general social harmony. Indeed, these features, originally intended to give a sense of a “village within the city,” have contributed to the proliferation of the tribal micro societies so characteristic of the current age.

The most advanced of the social sciences was psychology. Revelations gleaned from the fields of artificial intelligence and cybernetic brain augmentation placed it on a firm experimental footing, and mental illness was, for a brief time, almost completely controlled (though it could never be totally eradicated). Sadly, psychological knowledge was among the hardest hit by the decline of human civilization. Having no obvious practical application, it could not be accurately preserved in the oral tradition.

The System

Attributes

Characters have four **attributes**, each relating to a broad category of potential actions. The four attributes are Social (S), Physical (P), Mental (M), and Connection (C). The attributes range from 1 to 10, with each point in their ratings representing a ten-sided die in the character’s **dice pool**. In addition to its rating, each attribute has a **priority** value, ranging from first to fourth. The first priority attribute has a base **target number** of 6. The second priority attribute has a base target number of 7. The third, 8 and the fourth, 9.

Social: The social attribute represents a character’s ability to get along with other people. It governs making friends, winning arguments, telling lies, sensing moods, and gauging reactions. It also covers performance arts like singing, dancing, or stand-up comedy (anything where you have to get up in front of an audience and where simple technical proficiency is not enough). For humans, the social attribute is the first priority, giving it a base target number of 6.

Physical: This attribute governs anything the character does with her body that does not require abstract knowledge (like repairing a car) or play on another person’s emotions (like erotic dancing). Everything else is fair game though. Fighting, sports, stealth, movement, vision, hearing, and general health are all covered by the physical attribute. For humans the physical attribute is the second priority, giving it a base target number of 7.

Mental: The mental attribute represents the power of the character’s mind. Memory, logic, and all sorts of acquired knowledge are governed by the mental attribute. The mental attribute also controls technical and creative skills whose most important aspect is knowing how to do it (like automotive repair, sculpture, or playing an instrument). For humans, the mental attribute is the

third priority, giving it a base target number of 8.

Connection: This attribute represents the character's attunement to the world computer, his intuitive or acquired understanding of the protocols, shortcuts, passcodes, and other arcane minutiae of the global network of factory robots. While it overlaps to a certain extent with the mental attribute, the highest levels of connection (past rating 3) cannot be attained without special cybernetic brain implants. For humans the connection attribute is the fourth priority, giving it a base target number of 9.

The standard attribute priorities represent the basic rubric of human experience, the natural inclinations of the species as a whole. Individual talent or deficiency is represented by high or low attribute ratings. Nonhumans (like robots or aliens) may have different attribute priorities.

What Attributes Mean

1: Disabled. The character's deficiency in this attribute is severe enough to count as a medical or psychological disorder.

2: Weak. The character falls below the middle half of a standard bell-curve, but, depending on her specialties, is not necessarily considered handicapped. She could simply be a lazy couch potato (to use a physical example).

3: Average. The character is no better and no worse than the majority of humanity. If he has many specialties, he'll be considered above average. If he has few, he'll be considered below average.

4: Developed. The character is noticeably ahead of the pack, but not abnormally so. Lawyers, professional athletes, and PhD candidates have this level of attribute.

5: Genius. The character is unquestionably a unique phenomenon. Senior politicians, world-record breakers, and child prodigies fall into this attribute level.

6: Legendary. Occurring perhaps once a generation, the character's name is practically synonymous with the attribute in question. In contemporary times, most people who have this rating achieve it through the assistance of advanced training regimens.

7+: Superhuman. Never occurring naturally, these attribute ratings are attainable only through the technological augmentation of the body and mind.

Note: For connection, these assessments apply to attributes rated two lower.

Specialties

The attributes, by themselves, are extremely vague and general. A character with a high physical attribute, for instance, is strong, dexterous, resilient, fast, and healthy. The attribute, which is high, is rolled for all physical tasks. Because of their generality, attributes are not particularly useful for establishing the uniqueness of an individual character. Two people with a physical attribute of 3 have the exact same capabilities and potential. That is why, in addition to attributes, characters also have **specialties**. Ranging from 1 to 5, each level of a specialty reduces the target number of all appropriate rolls by 1.

Not only do specialties allow for the customization of characters, they also, under the right circumstances, allow characters with a low attribute to exceed the performance of characters with

a high attribute. Consider a foot race between two characters, one with a physical attribute of 6 and no specialties, and the other with a physical attribute of 3 and a running specialty of 5. Assuming both characters have physical as their first priority, then the first will roll six dice against a target number of 6, averaging 2.4 successes and having a 21.6% chance of rolling no successes at all. The second character, by contrast, rolls 3 dice against a target number of 1, averaging 2.7 successes per roll. Furthermore, his chance of complete failure is only 0.1%. The second character, because of his extraordinary skill, has a very real chance of winning, despite being all-around physically inferior to the first.

The base assumption behind specialties is that they are broad, but atomic. For example, to be good at a game like American football might require specialties in running, dodging, brawling, endurance, and throwing. On the other hand, the football player's running specialty would carry over to any other situation where running is useful (soccer, baseball, evading the police, etc.). It is worth noting though, that only one specialty is applied to each roll. Complex actions like running a football in for a touchdown either require several rolls or use only the most relevant specialty (to simplify and speed things along).

The following list of specialties is not exhaustive, though it tries to be comprehensive. When creating new specialties, remember that they are not necessarily learned skills. Specialties like Lifting, Beauty, or Memory might simply be the result of natural genetic traits (though they could be acquired with training, depending on the character).

Social Specialties

Lying: The most elemental of social skills, characters apply their lying specialty when they want their words to convey falsehoods (including telling the truth when they know they'll be disbelieved).

Oratory: The art of making speeches and persuading large crowds. Apply oratory to most forms of strictly impersonal communication.

Making Friends: Some people have a knack for saying the right thing (or not saying the wrong thing). Apply this specialty when the character tries to get another individual (or at most a small group) to like him.

Judging Character: This specialty allows the character to assess another person's sincerity. Use it to detect lies or to simply spot a phony.

Bargaining: An understanding of the dynamics of group discussions, of give and take and controlled compromise. Use this specialty in any formal negotiation (such as haggling or a committee meeting) where the participants expect to reach an accord and are willing to yield at least somewhat.

Politics: A broader understanding than simple bargaining, this specialty represents an ability to identify who's important (and who's just a figurehead) in any organization. Apply this specialty

when the character tries to get things done in large organization like a government or corporation (additional and different rolls may be necessary when the character actually finds the right people).

Tact: This specialty allows the character to broach sensitive issues without causing offense. Apply it for funerals, seductions, diplomatic negotiations, and other situations where straightforward honesty would be counterproductive.

Persuasion: Use this specialty when the character tries to convince someone to do something against his better judgement. Persuasion relies on personal and emotional appeals and is mostly truthful (to persuade someone with bad or false information, apply the lying specialty).

Empathy: The character's emotional awareness. Apply this specialty when trying to gauge someone's mood. If the person is purposely trying to project a false emotional state (other than simply trying to act normal), use judging character instead.

Beauty: Probably the character's natural attractiveness, though a combination of poise, style, and confidence might work just as well. Apply this specialty when the character tries to make a positive social impression with appearance alone.

Intimidation: The ability of the character to make other people afraid. If she has a high physical attribute, this is probably through brute force. If not, it's probably more psychological. (A character can use any approach that seems logical for her attributes and specialties).

Voice: A character with a high social attribute probably has a nice (or at least distinctive) voice. A character with this specialty has a trained control of his voice. Useful for singing, ventriloquism, being heard over a crowd, or working as a telephone operator.

Stagecraft: The ability to work in front of an audience and be unafraid. Apply this specialty whenever the character relies on working the crowd, rather than skill.

Disguise: More than just the art of concealing the character's identity, the disguise specialty also covers the psychological aspect of adopting another persona.

Physical specialties

Running: Apply this specialty when the character needs to move fast over land, using muscle power alone (this includes riding a bicycle). When comparing the speeds of two characters, all humans are assumed to move at the same rate (regardless of relative physical attribute ratings), modified only by the successes on a running roll. For exact speeds over short distances, assume humans can move 5 meters a second + 1 m/s per success (5 successes would let the character match the real-world speed record).

Jumping: This specialty covers all forms of jumping, including the broad jump, high jump, and acrobatic tumbling. If specific numbers are needed, assume the character can jump vertically one

third of a meter (approx. 1 foot) per success or twice that horizontally. For running jumps, multiply that distance by half (rounded up) the successes on a running roll.

Lifting: Characters can comfortably carry up to 10 kg comfortably without a roll. For each success on a lifting roll, double this amount (multiple successes “stack” so two successes allows 40 kg, 3 allows 80 kg, etc.). Characters may briefly lift that amount above their heads (about 10 seconds) or carry with effort half that amount (for 10 minutes per success on an endurance roll).

Endurance: This specialty covers the character’s ability to perform physical exertion over a period of time. The exact length of time varies by the type of activity, but apply this specialty for marathons, 18 hour shifts, staying awake for more than 36 hours, and other such tasks.

Swimming: The character’s ability to stay afloat and move in the water, it also covers diving, walking on the bottom, and other forms of unassisted underwater movement. More successes mean faster movement or the ability to survive in more difficult conditions.

Brawling: The characters ability to fight using only her body as a weapon. High ratings in this specialty probably represent training in a formalized martial art.

Sneaking: The character’s ability to move without being noticed. The difficulty of the roll is usually the opponent’s successes on a perception roll, modified by environmental conditions (like the presence or absence of light and background noise).

Grace: The character’s ability to control his movements on a whole body level. Apply this specialty to things like balance, dancing, ice skating, and hiding by remaining perfectly still.

Throwing: The ability to throw objects accurately and far. This specialty also applies to catching objects and to the kicking or assisted hitting of an object in order to get it to move (like kicking a soccer ball or hitting a baseball with a bat.)

Guns: The ability to fire a gun accurately. Apply this specialty to all rolls involved in shooting a personal firearm.

Perception: The character’s general sensory acuity. Apply this specialty to any roll to see, hear, smell, taste, or feel something that isn’t immediately obvious.

Knives: The ability to use bladed weapons less than 15cm (approx. 6 in) in length.

Clubs: The ability to use blunt weapons like clubs, staves, maces, or saps.

Dodging: The ability to move suddenly, especially out of the way of incoming attacks. This specialty represents any of the variety of defensive actions a character may take in combat.

Mental Specialties

Logic: This represents the character abstract problem solving ability. Apply the logic specialty when the character tries to solve a problem with brainpower alone (rather than through the application of knowledge).

Memory: The character's ability to recall factual information. Apply this specialty whenever the character tries to remember something that is not covered by another specialty.

Earth Science: Geology, meteorology, natural geography, astronomy, and other scientific knowledge of large-scale natural phenomena.

Life Science: Botany, zoology, anatomy, ecology, and other scientific knowledge of living creatures that is not explicitly a practical medical application.

Physics: This includes mechanics, optics, mathematics, engineering, and other abstract math-driven sciences.

Social Science: Theoretical knowledge of psychology, sociology, anthropology, and other scientific attempts to understand the human condition. Of little practical use when dealing with real people.

Philosophy: Theology, ethics, metaphysics, political theory, and other basic attempts to understand the mind and the world.

History: History, of course, but also economics, political geography, political science, and other academic disciplines dealing with the characteristics of nations and governments.

Literature: Knowledge of literary history and theory as well as the ability to compose and critique written works.

Arts: Knowledge of art history and theory as well as the ability to critique and appraise the quality of manufactured goods (whether they were intended as art or not).

Electronics: The ability to build and repair electronic components, as well as an understanding of the theory of electronic circuits.

Materials Technology: Practical and theoretical knowledge of chemistry and metallurgy.

Music: Knowledge of history and theory, and probably the ability to play at least one musical instrument.

Mechanics: The ability to build and repair non-electronic technology, especially engines.

Architecture: Drafting, design, and a knowledge of construction techniques.

Medicine: Practical and theoretical knowledge of illnesses and injuries, and how to treat them,

including dietary science, preventative medicine, and euthanasia.

Products: The names of many archaic or lost products the computer knows how to manufacture, as well as general knowledge of techniques of searching through the database for new and interesting things.

Degenerate Specialties

Since the institution of the world computer and mankind's total dependence on machine labor, certain fields of knowledge, particularly the physical sciences, have faded from the common awareness. As cursory instruction became the norm, shorthand, and eventually superstition, replaced genuine understanding. Scientific learning in the present day is a combination of traditional dogma, popularized accounts downloaded from the computer network, and fortuitous guesses. As a result, apply a +3 difficulty penalty to rolls made with the following specialties whenever accurate knowledge of theory (not practical applications) is essential: Earth Science, Life Science, Physics, Electronics, Social Science, Materials Science, Mechanics, Architecture, or Medicine.

Connection Specialties

Connection specialties are a special case. In many cases, the effects of a connection specialty (like opening a door or tapping into a security camera) could be accomplished by other means (breaking it down or attaching a wire to the right place). A character only uses a connection specialty when they want to do something fast and without recourse to their normal resources. Anyone can get past a door by breaking it down (physical) or decoding the electronic lock (mental), but a monitor can get through it by sending an electronic request to the world computer and a village elder by uttering the password (both use connection).

The biggest limitation to connection specialties is their lack of availability. Characters need the privileged access or monitor transformation gift to gain more than two points in any of these specialties.

Doors: The character is skilled at opening, locking, and unlocking doors. Monitors use their implants to persuade the doors to open. Normal humans know special command protocols or common passwords.

Cameras: The character can control the ubiquitous security cameras, turning them on or off with little effort. Monitors can use their implants to look through any camera they know about (pending a successful roll). Normal humans can accomplish a similar feat with a video display terminal.

Robots: All robots are programmed to obey authorized people. Using this specialty allows the character to command a robot (more complicated orders have a higher difficulty - phrasing is usually very important).

Ordering: The character knows how to insure that his product orders receive top priority. This can involve passwords, mathematical trickery with the availability codes, or simply overriding

the system (in the case of powerful monitors). The character divides the wait time by the number of successes. Most people have at least one specialty in ordering, representing their experience working with the system.

Library: The character knows how to access and search through the global electronic library. Though it is technically open to all, the archaic command structure and sheer unwieldy size of the thing (everything ever written down in all of mankind's recorded history) necessitate special skill in dealing with it. It is possible to search through the library with the Products(M) specialty, but doing so incurs a 3-point penalty. Monitors can use the library specialty to download information directly into their brains.

Environment: This specialty applies to the light, heat, and air controls of interior areas, both public and private. The computer will not allow anyone (even a monitor) to change these factors to dangerous levels, though it is possible to make things extremely uncomfortable.

Transportation: The character can access the secure controls of the public transportation network of elevators, walkways, and magnetic trams. With the proper commands she can delay, speed up, reroute, or completely stop any sort of automated vehicle (though built-in safety protocols prevent anything too dangerous - usually).

Communication: The character can operate, secure, monitor, or shut down any form of electronic communication. Spying on private conversations is usually very easy, as few people know enough to secure their comm systems.

Positioning: The character can use the communications, surveillance, and library networks to find something (including himself) in the real world. This specialty cannot find something that's not currently in the world computer's field of awareness, but given the ubiquity of that awareness, something that can't be found is usually deliberately concealed.

Monitors: This specialty, possessed only by monitors, represents a knowledge of the monitors' internal protocols. While it can't control a monitor (they are still mostly human) it can be used by one monitor to telepathically communicate with another. This specialty is also necessary to operate the machines that transform a human into a monitor.

What Specialties Mean

0: Unfamiliar. The character has encountered this specialty so infrequently that he has trouble even identifying it. Inborn specialties (beauty, memory, etc.) at this level may represent an unusual weakness (if the character's attribute is high).

1: Hobbyist. The character knows the basics (about a high-school course's worth), but has not developed the specialty enough to make a living from it.

2: Apprentice/Student. The character knows about as much as someone freshly out of college. They can do most practical applications under the supervision of a more experienced individual.

3: Professional. The character can use the specialty well enough to go into business for himself, but would not stand out exceptionally from the competition.

4: Master. The character is skilled enough that other practitioners of the specialty would go to

her for advanced training.

5: Ingrained. The character goes beyond mere technical mastery and into the realm of art. The specialty is so completely identified with the character (and vice versa) that if she lost it, people wouldn't recognize her.

Gifts

Gifts are the means by which characters grow and improve. The Game Master distributes gifts to the characters, either as a reward for exceptional events in the game, or on a regular basis to insure a steady curve of increasing power. While some gifts increase attributes or specialties, most grant the character unique benefits that cannot be simulated with those basic traits.

Gifts are divided into four types: social, physical, mental, and connection. General gifts are always of the same type as the attribute or specialty they improve.

General Gifts

Improved Attribute

Increase one of your character's attributes by one point, to a maximum of 6.

Basic Specialties

Gain 5 specialties for any single attribute. None of these new points may raise a specialty above 3.

Intermediate Specialties

Gain 3 specialties for any single attribute. None of these new points may raise a specialty above 4.

Advanced Specialties

Gain 2 specialties for any single attribute. These may raise a specialty to 5.

Master Specialty

Choose one of your character's level 5 specialties. The difficulty penalty of all rolls made with that specialty is reduced by one. This gift can be selected only once per specialty.

Master Attribute

Choose an attribute that's already at 5 or above. Reduce the target number for rolls with that attribute whenever the character lacks an appropriate specialty. This gift may only be taken once for each attribute.

Reliable Specialty

Choose one of your character's mastered specialties. Critical failures made with that specialty are assumed to be simple failures. This effect is incompatible with that of extraordinary specialty, though the character may take both gifts and decide which one to apply.

Extraordinary Specialty

Choose one of your character's mastered specialties. If the character rolls a critical failure with that specialty, and at least one of the dice shows a success, you may choose instead to suffer a disastrous success. The roll is treated as if it succeeded and the character suffers a serious penalty (at least as severe as that of a critical failure, though not one that would negate the roll's success).

For example, a character might critically fail a roll to jump across a chasm, use this gift to make it across, and suffer a serious injury in the process (possibly by landing too hard). This effect is incompatible with that of reliable specialty, though the character may take both gifts and decide which one to apply.

Signature Trait

Choose a subset of one of your character's specialties (i.e., "about my past" for lying, "under stress" for lifting, "word games" for logic, or "home phones" for communications). Any time you make a roll using that specialty that satisfies your chosen condition and the roll gains at least one success you may add an additional success to the total. You may take this gift as many times as you like, but may only double up (for a maximum bonus of +2 successes) on one trait per specialty.

Advanced Attribute

You increase one of your character's attributes by one point. This attribute must already be at six or higher and you must have the appropriate prerequisite gift: Alpha Conditioning for social, Olympian Bodysculpt for physical, Symbion Brainbug for mental, or Psychoneural Restructuring for connection. Attributes cannot rise above 10.

Social Gifts

Alpha Conditioning

Using advanced techniques in hypnotic teaching, the alpha conditioning program exposes a character to literally thousands of hours of footage of history's most charismatic leaders, tyrants, and demagogues. The result is an induced transformation of the subject's basic personality. Sometimes subtle, sometimes dramatic, the change opens up for the character a whole new insight into the human social landscape. Forever after, however kind and noble his intentions, he can see the social levers that make people move, and manipulating them takes on an instinctive ease.

In addition to allowing the character to raise his social attribute above six, Alpha Conditioning has two other effects. One, a character with Alpha Conditioning always wins social initiative contests against a person who lacks this gift. Two, if the character ever has five more dice than his opponent in a contested social roll, he wins the contest automatically. A character must have a social attribute of 6 to take this gift.

Extra Language

Your character is completely fluent in an additional language. You may take this gift as many times as desired.

Dedication

Your character is particularly devoted to a person, idea, or cause. When you take this gift, the difficulty of any social roll to persuade your character to abandon or betray that cause is increased by one. You may take this gift as many times as your character's social attribute, although the maximum difficulty cause for any single cause is +3.

Fanaticism

Choose any subject for which your character has at least one point of dedication. All attempts to persuade you to violate that dedication automatically fail, but you must succeed at a difficulty 3 social roll to tolerate anyone who disagrees with your beliefs. You may only take fanaticism once.

Supportive

Through good advice, psychological insight, and nonverbal cues, your character is able to share his social specialties with another character. He may share up to one point of any or all social specialties in which he has at least 3 points. You may take this gift multiple times. Taking it a second time allows the sharing of two points of the character's rating 4 specialties. Taking it a third time allows him to share 3 points of his rating 5 specialties.

Forgettable

You may, if so desired, apply fewer points of your social specialties or roll fewer of your social attribute dice than you are entitled to. People whose social attribute is lower than your unmodified rating will be convinced that those are your actual ratings. People who have at least as high a social attribute are entitled to a judging character roll (opposed by lying) to see through the ruse. Using a higher rating against someone who experienced your character's artificially lowered rating imposes a + 2 difficulty, if the exposure happened on the same day, or a +1 difficulty, if it happened in the last week.

Physical Gifts

Olympian Bodysculpt

Your character has been subjected to a specialized medical treatment, designed to optimize her physical processes. The Olympian Bodysculpt is an advanced cocktail of synthetic hormones and mutagenic retroviruses that alter a biological organism at the cellular level. The process itself is a painless injection followed by several days of agonizing recovery.

In addition to allowing the character to raise her physical attribute past 6, the Olympian Bodysculpt adds one bonus success to all rolls to treat the character's injuries (this does mean that the character will heal superficial injuries in no more than 4 days, even without further treatment). A character must have a physical attribute of 6 to even survive the Olympian Bodysculpt (treat exposure to the chemical cocktail as an instant mortal injury for anyone who lacks the appropriate attribute rating, or who does not immediately take this gift).

Extra Wound

Your character may sustain an extra Serious injury, for a total of 4. You may take this gift only

once.

Uncanny speed

Add one success to all running, jumping, and physical initiative rolls, provided the original roll scored at least one success (after applying difficulty). If you have the Olympian Bodysculpt gift, you may take this gift a second time. This gift does stack with any appropriate signature traits.

Knockout Blow

When using the nonlethal fighting rules, the character may knock out his opponent instead of inflicting a serious injury.

Toughness

The character is particularly hardy and less susceptible to minor injuries. Each time you take this gift your character may sustain an additional superficial injury. You may take this gift a maximum number of times equal to half your character's physical attribute (rounded up).

Mental Gifts

Symbion Brainbug

The symbion brainbug is a weak artificial intelligence program specially designed to use the human brain as its operating hardware. The insertion of the brainbug involves bringing a slender metal-polymer probe into contact with the subject's brain tissue, and must be performed at an advanced medical facility (thus requiring at least nominal cooperation from the monitors). Once the probe is in place, it sends a modulated electrical impulse into the character's brain and "uploads" the Symbion Brainbug program. Monitors have an easier time, as they can use their VR implants to download the brainbug from anywhere on the planet. Once inside the character's brain, the brainbug immediately enhances his mental functioning by granting him instant access to the benefits of a machine intelligence. Mathematical calculations become trivially easy, and the character's recall of factual data becomes nearly flawless.

In addition to allowing the character to raise his mental attribute past 6, the brainbug speeds up all his mental actions, dividing the time they take by his mental attribute. Finally, he adds one bonus success to all memory and logic rolls, even if the attribute dice show no successes. A character must have a mental attribute of 6 to take this gift.

Intuition

Whether through incredible genius or a quirk of fate and luck, the character is good at solving problems with little to no information. The intuition gift allows you to make mental attribute rolls even for tasks that your character has no reasonable chance to accomplishing (like guessing a computer password). The difficulty is always at least 3, and may well be ridiculously high (like for an illiterate cave dweller deciphering Egyptian hieroglyphics based on what the pictures look like).

Creativity

The character has a natural flair for the arts. Whenever the character makes a mental attribute roll

for a creative endeavor (painting a picture, composing a poem, etc.) and scores at least one success, she adds an additional success to the final total. This bonus success stacks with any applicable signature traits.

Quick Wits

The character's fast thinking nature carries over into other aspects of his life. You may roll the character's mental attribute for any or all initiative rolls, if doing so is advantageous. When rolling the mental attribute for mental initiative, reduce the target number by one.

Relic Knowledge

Whether through the discovery of some ancient edu-vid or through sheer determination, your character has a scientific understanding that's rare for the current age. Choose one of the specialties mentioned in the "Degenerate Specialties" sidebar. The difficulty penalty applied to the character's rolls with that specialty is reduced by two (to +1). You may take this gift once for each degenerate specialty.

Connection Gifts

Privileged Access

The character has a broad knowledge of passwords, system back-doors, and useful bugs. Most of the time, this knowledge is inherited from a village leader or tribal shaman, who in turn inherited it from a long line of such figures. It's also possible to discover it through diligent study and hacking skill, though such an accomplishment is exceedingly rare.

A character with this gift may raise their connection specialties past 2, though the connection attribute is still limited to 3 points. If you take this gift, you may later take monitor transformation, though you gain no additional benefit for having already attained privileged access (the monitor transformation automatically includes the benefits of this gift, albeit with significant drawbacks).

Monitor Transformation

Your character has entered the machine zones and been deemed worthy of the rank of monitor. The procedure, theoretically foolproof, involves connecting a VR transmitter to the character's central nervous system, allowing him to access the worldwide computer network with nothing more than an appropriately coded thought.

The monitor transformation gift allows you to raise connection specialties past two and the connection attribute past three (to a maximum of 6). Unfortunately, the radical brain surgery involved renders the character less able to relate to other human beings. Increase the base target number of the character's social rolls by one, as if the social attribute decreased in priority. You receive no compensation for this loss besides the benefits of the monitor transformation gift.

Psychoneural Restructuring

The next radical step after the monitor transformation itself, only monitors may take the Psychoneural Restructuring gift, as it involves piping psychotropic VR programs directly into the

subject's brain. When the process is complete, the physical structure of the character's brain is completely changed, made to better resemble and interact with the global machine intelligence. Only the most advanced monitors (connection 6) are able to survive the procedure with their sanity intact.

Psychoneural Restructuring allows the character to raise her connection attribute past 6. For each point of the character's attribute past 6, raise the base target number of her social rolls by one. Monitors can have a base social target number of ten or higher (at connection 9+), in which case they cannot communicate at all with non-monitors without an appropriate specialty that pushes the target number to 9 or below: empathy for normal communication, possibly others (negotiation, politics, etc.) for functional communication.

Characters with Psychoneural Restructuring reduce their base connection target number by one, as if it moved up a priority.

Human Memories

The character has some memory of what it's like to be human. Reduce the high-connection penalty to social target numbers by one for each time this gift is taken. You may take this gift up to 3 times, but in no case may a monitor's base social target number ever drop below seven (making this gift useful only to monitors with connection 7 or higher).

Network Ghost

Your character has activated classified-level privacy subroutines. Though he still shows up on video cameras and has no problem ordering goods, in no other way is his existence acknowledged by the global computer network. Positioning rolls to locate your character automatically fail. Library searches turn up no information about him. Properly functioning robots will ignore him, even if ordered by a monitor. The video cameras in his private quarters show nothing but static, and his communication lines are immune to eavesdroppers. These abilities function automatically without a roll.

This gift does not interfere with the character's ability to use his connection attribute. You do not need to have the privileged access or monitor transformation gifts to take network ghost. Every generation sees a few people stumble onto this gift completely by accident.

Rolling Dice

This game uses 10-sided dice. Players roll a number of dice equal to the appropriate attribute. Each number that equals or exceeds the [base target number] (as determined by the attribute's priority) - [applicable specialty] is counted as a success. Unlike many other games the "0" on the ten-sided die is counted as a zero and is never, under any circumstances, considered a success. Only one success is needed to accomplish the task, but sometimes more successes can lead to a better result (a more damaging blow, a brilliantly executed work of art, etc.). Sometimes a task may be extraordinarily difficult or resisted by an outside agency (like trying to jump a large chasm or strike an opponent in combat). In these cases, the game master may apply a **difficulty**, a number of successes to be subtracted from the character's final total (the difficulty of an attack roll is almost always the number of successes the target achieves on a defense roll).

Critical Failure

If the player rolls one or more zeros, she may have to check for **critical failure**. Critical failure only occurs when the total numbers on the dice, added together, fail to exceed the character's attribute rating. If this happens, the roll is automatically considered a failure (even if some of the dice came up successes) and the character suffers some additional mishap representative of her colossal screw up (she drops a weapon, insults the monitor, mistranslates "curse of the mummy" as "kiss of the mommy," etc.) *Example: Darlene's character wants to jump over a chasm. She has a physical attribute of 10 and a modified target number of three. Darlene rolls ten dice and gets eight zeros, a five, and a four. Even though two dice came up successes, their total is nine, one less than her physical attribute. Darlene's character probably doesn't make it across the gap.*

Time

For the most part, time in the game is tracked in the same way as the real world, with minutes, days, years, etc. In certain situations, however, the order of events may be more important than their duration, and a more abstract way of keeping track of time may be necessary. In these cases, time is measured in **turns**. The actual length of a turn varies depending on the situation. It may last a single second (for a quick-draw duel), several minutes (for intense contract negotiations), or several hours (for an epic battle between two opposing armies).

When time is measured in turns, the character who rolls the most successes on an initiative roll is the first one to act. The character with the most successes goes first, the one with the second most goes second, and so on until the last person goes, and then the first person gets to act again and the sequence is repeated. The initiative roll is always an attribute roll that is unmodified by any specialties (though a mastered attribute does modify the target number). The specific attribute used for initiative depends on the situation (physical for a test of reflexes, social for a debate or discussion, mental for a battle of wits, or connection for a cyberspace duel).

Injuries

Characters can suffer three types of injuries: Superficial, Serious, and Mortal. These types are distinguished by the manner in which they heal. Superficial injuries heal naturally and rapidly, even without medical treatment. Serious injuries heal slowly and imperfectly. If a serious injury is left untreated, it will eventually heal, but in doing so it will leave the character permanently scarred (lowering an attribute by 1 or causing the character to lose 5 specialties). Medical treatment can allow serious wounds to heal without complications. Mortal injuries are just that. If left untreated, the character will die. A character can sustain 1 mortal injury, 3 serious injuries, and a number of superficial injuries equal to his physical attribute. If a character suffers a [P + 1]th superficial injury, it's counted as serious. Likewise a fourth serious injury is counted as mortal and a second mortal injury is considered instant death. The following table shows healing times, treatment difficulties, and the number of successes required to inflict the injury in combat (the most common source of injuries).

Injury	Max # of injuries	Treatment Difficulty	Heal Time (Treated)	Heal Time (Untreated)	Untreated Effect	Successes to inflict
Superficial	[Physical]	0	4 days/ successes	5 days	none	1
Serious	3	1	4 weeks/ successes	5 weeks	lose 1 att. or 5 spec.	3
Mortal	1	3	4 months/ successes	n/a	die within the day	5

Note: If a character rolls seven excess successes on an attack roll, the target dies instantly.

Nonlethal Fighting

If a character wields a weapon specifically designed for the purpose (or fights unarmed), he may render his opponent unconscious rather than inflict a mortal injury.

Equipment

All equipment in End of Utopia is rated between 0 and 3. Rating 0 equipment offers no mechanical bonus, but may be necessary for the character to take an action (like carpenter's tools). Rating 4 or higher equipment might exist, but if it does, all examples are singular objects of literally priceless value (the world computer always takes at least a year to make rating 4+ equipment, if it even knows how). There are four main types of equipment that characters may use. Each offers a bonus equal to its rating.

Outcome Enhancing Equipment

Outcome enhancing (OE) equipment adds its rating as successes to attribute rolls. The initial roll must have scored at least on success after applying difficulty for OE equipment to take effect. Hence, OE equipment doesn't make an action any easier, but it does ensure that successful actions will have greater results. Most weapons are OE equipment.

Difficulty Reducing Equipment

Difficulty reducing (DR) equipment subtracts its rating from an action's difficulty. If the action's difficulty is already less than the equipment's rating, DR equipment offers no additional bonus (beyond reducing the difficulty 0). DR equipment can make a difficult action easier, but it will not enable an unskilled character to succeed beyond the limits of his attribute dice. Climbing ropes, lock-picks, and laser sights are examples of DR equipment.

Ability Supplementing Equipment

The rarest kind of equipment, ability supplementing (AS) equipment adds its rating to the character's attribute rating when the roll is made. These dice are counted as normal attribute dice and the target number while rolling them is whatever the roll would normally require. AS equipment is usually the result of advanced technology and normally benefits at most one or two

specialties (like myoelectric smart boots that enhance the character's running and jumping rolls). Assistant AIs usually provide AS bonuses.

Armor Equipment

An exception to the normal equipment rules, armor does not have a rating and it does not change the result of the character's rolls. Rather, armor has its own set of injuries. Attacks against the armor wearing character injure the armor first, provided the armor has an injury level of that rating remaining. Injuries applied to armor do not stage up, rather, if the armor is completely damaged at that rating, the injury applies, as is, to the character. Not all armor has all types of injury levels. For example a leather jacket might protect against superficial injuries while doing nothing to protect against serious or mortal injuries. On the other extreme, a bulletproof vest might protect the character's vitals (with a mortal injury level) while doing nothing to mitigate damage to the extremities (no superficial injury levels).

Even though armor does not technically have a rating, for purposes of comparing it to other equipment, one point of rating gives one mortal injury or two serious injuries or four superficial injuries or two superficial injuries and one serious injury.

Multiple types of bonus

A given object can provide multiple types of equipment bonus. For example a gun with a laser sight might provide two points each of OE and DR bonuses. In this case, the gun is not a piece of rating four equipment. Rather it is a single object made from two rating two components. If the owner of that gun were later to add a computer controlled gyroscopic targeting system, the gun could add an AS bonus as well.

The general rule for stacking bonuses is that any given roll may benefit only once from each type of equipment bonus. If the character is using two pieces of equipment that provide the same type of bonus (like a laser sight and targeting goggles), only the highest applies.

Equipment Penalties

If the character's equipment imposes a penalty (like heavy armor to a swimming roll), that penalty is always a difficulty increase. Equipment never subtracts dice from the attribute roll and never changes the target number for a roll (either up or down).

Acquiring Equipment

Because the world of End of Utopia lacks a monetary system, characters do not get equipment in the standard way. Instead of purchasing it at a store, they must order it from the world computer and then wait for it to arrive. All orders are eventually filled, but for some items, the wait may be prohibitive. Consult the following chart for standard waiting times.

Downloads: Immediate

Food, medicine, and other necessities: Within the day.

Common luxuries (popular clothes)/ professional tools: [Rating] days, min. 1 day

Uncommon luxuries/ specialist tools: [Rating] weeks, min 1 week

Rare items/ weapons/ controlled substances: [Rating] months, min 1 month

Equipment of rating 3 is automatically at least a specialist tool. A character's back-order can affect the speed with which they receive new shipments. If the character has more than three items already ordered, he multiplies the wait times by 2. If he has more than eight items ordered, multiply the wait time by 5. If he has more than 15 items ordered, multiply the wait time by half the number of items (rounded down). Food and other necessities are an exception to this rule. Clogging the order-queue is a mistake most people make as children and then take care not to repeat. Placing false orders for another person is handled with an ordering(C) roll.

Unless another preference is stated, objects arrive one at a time with the fastest categories arriving first (the computer will finish all the character's common luxuries before starting with her uncommon luxuries, for example). Downloads and essentials do not factor into these calculations.

A character can place any of her orders at the top of her queue at any time, in which case no non-essential shipments arrive until the order is filled. Constantly changing the top priority has much the same effect as ordering many objects at once. Count each priority change as an additional order until the character receives a non-essential shipment.

Children gain the ability to order products of their own at the age of 10. Until that time, they rely on their parents to order for them. The monitors take care to adopt any child that's abandoned before that time, though the upbringing provided by such inscrutable beings is questionable at best.

Character Creation

Creating characters for End of Utopia is extraordinarily easy. You select attributes and then you select specialties. In strange or high-powered games, you might have the additional steps of prioritizing your attributes and/or selecting starting gifts.

Optional Step: Prioritizing Attributes

Though it bears a great effect on how a character is played, individuals do not generally prioritize attributes. Attribute priorities are a characteristic of a species as a whole, defining how it relates to the world around it on the most fundamental level. The priorities measure the baseline balance of the four basic traits: community, body, mind, and machine.

The first priority, not surprisingly, is the most important for defining a species. The first priority represents the species' primary survival strategy. It is where the species "lives."

A species with social as its primary attribute is naturally convivial, not only living in groups, but expressing a dynamism within those groups. Usually language is a prerequisite, though species with sophisticated prelinguistic communication (dolphins, great apes) might also qualify.

A species with physical as its primary is effortlessly physical, able to get the most from their bodies without even trying. Most animals fall into this category.

A species with mental as its primary attribute is probably much smarter than humanity, but not

necessarily so. It's more indicative of a propensity for abstraction, a tendency to step back from the world and think things through before acting. No terrestrial species displays that trait to a sufficient degree, though certain AIs might.

A species with connection as its primary attribute is almost certainly a machine, or at the very least created by technology (like an experimental group of children, connected from birth to a VR uplink to the worldwide computer network). Interacting with the world computer is as fundamental to them as learning to speak is to a human being.

A species' fourth priority attribute represents that activity most unnatural to it, the one it would take the hardest deliberate training to develop. For humans and animals, that's connection. For most machines, that's social. For disembodied minds (who somehow managed to acquire a body), it's physical. For dumb cyborgs, social robots, and other such oddities who somehow manage to have natural skill with both social and connection attributes, it's mental.

Step one: selecting attributes

Every attribute for which the character might conceivably make a roll starts out at rating one. Thus, humans have at least one in every attribute. A bodiless AI would lack a physical attribute. Most animals lack a connection attribute. Generally, a player character will never lack a mental or social attribute. If it did, it would neither be able to make decisions nor interact with other characters, making it more of an object than a character.

In order to further differentiate species, the GM might set attribute maximums or set the base starting attribute at higher than one. For example, animals almost never have a mental attribute above one, whereas a human with a mental attribute below three will be considered slow (at the very least). This is despite the fact that humans and animals usually have the same mental attribute priority (3rd).

Characters get a number of starting attribute points based on the starting power level (consult the power level chart), and human beings cannot raise any of their attributes past six without an additional gift.

Step two: selecting specialties

Specialties are a further way of differentiating characters, and serve, in a more general sense, to graduate the rather coarse attribute scale. For example, if two characters both have a mental attribute of 3, the one with 15 mental specialties will be measurably smarter than the one with 5 mental specialties.

The character's starting specialty points, as well as the maximum number of points that can be spent on a given specialty, depends on the game's starting power level. Specialties have an absolute maximum of 5 points, and can never, under any circumstances raise any higher. This is a mechanical artifact of the rules. If specialties could rise to rating 6 or higher, it might be possible to have a target number of 0 or less. Since 0s are always counted as failures and target numbers are never raised as a penalty, this is clearly nonsensical.

Humans have an innate 2-point limit on connection specialties that can only be overcome with the help of certain gifts (privileged access or monitor transformation). Other species may, at the GM's discretion, have similar limitations.

Optional Step: Select Starting Gifts

For higher powered games, characters may start the game with one or more gifts. Unless the game master says otherwise, all gifts are available, including those that raise specialties or attributes. The GM may decide to limit or forbid some gifts. This is especially likely for those gifts that modify the character away from the human norm (monitor transformation, olympian bodysculpt, etc).

Starting Power Levels

Power Level	Attributes	Specialties	Max. Specialty	Gifts
Gritty	6	20	3	0
Low	8	30	4	2
High	10	45	5	4
Heroic	12	60	5	6

Adventures

It may seem, that in the contented world of the far future, there's no room for heroes, nothing for them to do. While it may be true that the world computer fulfills the material needs of humanity, the nature of humanity itself has not changed. People are still the shortsighted, parochial, self-absorbed fools they've always been. Conflict over personal relationships, religious ideology, and political power are still common. Then there are the monitors, rogue gippers, and the possibility of sudden and critical system failure which threaten to shake apart the static world the characters have known all their lives. What follows are a few archetypal adventures, to get things started.

Treasure Hunt

The world computer provides everything the characters could ever need, but not necessarily everything they could ever want. Some things, like weapons, advanced prototypes, rare medicines, and singular works of art, WIRI cannot create. Others, like the accumulated possessions of a dead or missing person, it would take too long to create.

Characters can follow, rumors, clues, and archival evidence to these treasure troves. Finding one brings not only the material benefits of possession, but possibly also status in the tribe and a reputation for ingenuity.

A variant on this adventure type is the rescue (or kidnaping). However skilled it is with manufactured goods, the computer cannot create a human being. Beautiful, talented, and knowledgeable people tend to be valuable commodities, and carrying off a member of another tribe is a common activity for restless youths. The violence of these kidnapings varies

considerably. Tribes with a history of enmity will roughly steal the important spiritual leaders of their rivals. On the other hand, tribes with a history of mutual exogamy will gently kidnap potential wives or husbands, who may not be entirely reluctant to cooperate.

Chase

Similar to a treasure hunt, but the target is moving. Adventures of this type will usually involve a fugitive criminal, though the characters might also search for a missing person. Because food is free and shelter is plentiful, it is especially easy for children to run away from their parents. Without access to the world computer's powerful positioning programs, such a runaway can be very difficult to find.

Ritual

The world computer provides everything. It does so automatically without any expectation of recompense. Most contemporary people do not understand this, and as a result, elaborate religions have sprung up in order to insure its continuing bounty. Some of these rituals are in the form of simple prayers and liturgies, others are difficult, brutal, or bizarre.

Sacrifice, of one form or another, is a common ritual that could serve as an adventure seed. Usually, ritual sacrifices have to be performed in some specific location. Deep in the machine zones and on the exterior surface of the arcology are likely choices. If the sacrifice is a human being (as happens in many places), it might be difficult to perform.

Tribal Conflict

Closely related to the previous adventure type, the most frequent cause of tribal conflict is disagreement over the proper way to honor the world computer. Rival tribes may try to disrupt each others' rituals (especially sacrifices or processions) or they may try to directly harm each others' members.

The weapons used in tribal conflicts tend to start off primitive and escalate rapidly. The earliest battles are fought with fist and club, and then one tribe or another, looking to the archives for an advantage, discovers a cache of gas or cracks the police authorization code, and soon the violence is out of control.

Neighboring tribes might be drawn in when their members are caught in the crossfire. Alternatively, the monitors might try and put a stop to the whole thing using superior tactics and firepower. If the neighbors respond aggressively or the monitors lack the proper manpower, the fighting could spread over an entire arcology. In such states of civil emergency, shipments from the computer could be interrupted or stopped entirely (as WIRI decides not to squander dwindling resources on people who seem so intent on killing each other anyway).

System Breakdown

Finally, an exciting series of adventures could emerge from either a temporary or permanent suspension of WIRI's normal production. If it ever happens to a single arcology, widespread panic is likely to ensue, as fearful inhabitants attempt to flee to more prosperous zones. When the cause of the migration becomes clear, they might not receive a very warm welcome, as the people

at their destination fear a similar fate befalling them. This could prompt religious tribal conflict as unaffected tribes accuse the afflicted of offending the world computer.

If the interruption is temporary and local, the characters might be called upon to investigate, as their home tribes begin to hoard necessary items and reorganize their society on a more secure footing. If the interruption is permanent and widespread, characters will have to deal with the total collapse of the social order, as desperate people search frantically for a new way to live.