UTOPIA NEXT
DATA TRANSMISSION ENTRIES
IN ALPHABETICAL ORDER

A

ADDITIVE PRINTER UNITS: The modern economy operates by way of household additive (or "3d") printer units to make the majority of goods; these are identical to or better than mass-produced goods as used to be distributed. Like culinary units, all they need are the right product designs and materials to be loaded into them, and new designs can be easily found on or bought off the Web.

   Most printer units also have a recycler add-on to salvage materials from objects that are no longer needed.

ADDITIVE (3-D) CLOTHING PRINTERS: A variant on the general goods printers found in most homes in 2118, clothing printers specialize in using advanced "electrospinning" methods to quickly create custom-fit clothing out of polymer solutions. The resulting garments feel and breathe like cloth and often have microcircuitry printed into them for various purposes. The best models can create complex clothing in only a few minutes, and with the proper authorizations can make what will do a lot more than keep you warm.

   Entities like DIS regularly create fieldwear for their agents that look like regular clothing but are near-bulletproof, carry communication uplinks, sensor-disabling lattices or a wide range of other concepts depending on the mission to be done.

ANI ASSISTANTS (ANI): In development for over a century, many citizens of the world rely on Artificial Narrow Intelligence (ANI) assistants to manage their lives. Acting as a combination personal assistant and secretary, they allow users to focus on more meaningful activity. Among those who work, these assistants also compile data and handle tasks that the user might not be as capable of doing themselves; this is most often the **case in fields to do with research.**

APARTMENTS IN 2118: With the advent of printer-fabricated concrete buildings, most buildings are now built to the same extremely efficient standard. If one were to enter any apartment, they would immediately notice that the room layout is exactly the same as any other apartment for that number of people. This has many benefits, the biggest being that it maximizes the use of space, allowing for more apartments.

ARMORED CLOTHING: A variant on nanofiber resistance clothing, this incorporates ultra-thin layers of graphene into a casing of tear and explosive-resistant cloth. It protects about as well as a more typical thick armored vest, but does need to be powered. This is because the graphene layers harden in response to impacts, an effect that requires both a web of micro-circuitry and electricity.

   Armored clothing of this type is not available to the general public. It

is usually used by military or special forces units that require stealth or high mobility and doesn't provide the level of protection that modern actual armored plating is capable of.

ARTIFICIAL TELEPATHY: It has been possible for some decades to control devices and even to communicate via direct brain transmission. Most hololinks and cranial ports can support this, although there is still a significant portion of the general public that opts to not use it out of privacy or security concerns. Those that do experience a greater level of convenience, device security, and the ability to call for help without speaking a word, something that has saved many lives.

       As to the risks, there are no known reports of people being hacked into "brain failure", although there have been occasional BCI viruses that have caused users temporary issues of various kinds. All modern BCI devices attempt to block these.

AUGMENTED REALITY (AR): In 2118, this is the main medium of communication, being used for private or personal communication and data interfacing. It can be used for full-avatar holocommunication (visual and audio) although most communication is still audio, text or camera-visual only due to the need for holocam setups to produce actual AR-based avatars. To a user, they typically will see an interface of some kind projected in front of them; exactly how this happens depends on the type of projection device they use. These interfaces are touch sensitive and require no special equipment beyond the device itself.

AUTOMATED TRANSPORTS: These are "driverless vehicles" and exist in land, sea and air forms. Many land and sea-based transports lack manual controls; most users don't bother to gain the license required to pilot such vehicles themselves as in urban areas this is only allowed in limited circumstances. As to air-based vehicles, virtually all lack manual controls due to the difficulty in getting a pilot's license and heavy restrictions on using one outside rural aras.

       While automated transports have extensive backup systems to prevent crashes, it still occasionally happens that one will suffer a total system failure. This has had an impact on consumers' willingness to use non-land-based transports, as falling to the ground or being stranded on water is much worse than simply rolling to a stop.

AUTOMATIC TRANSLATION: By default, all hololinks now feature automatic translation. This operates in real-time and means that the listener will, in fact, hear two voices at once - the actual, untranslated voice of the speaker and the translated version emitted directly into their ear (or, if artificial telepathy is enabled, directly into their brain).

B

BALLISTIC WEAPONRY (bullet-based): While outmoded in power by other forms of weaponry in 2118, ballistic weaponry continues to be the mainstay of law enforcement and security personnel as well as criminal organizations that don't have access to other options. Especially at shorter distances, the wide range of ammunition types that can be loaded make them a potent option in some circumstances, and they don't require power to function.

Private citizens in urban areas are normally unable to acquire these, having a wide range of (usually) nonlethal personal defense options available instead. In rural areas. however, gun laws still tend to be as they were some hundred years ago.

BIONIC LIMBS: The popularity of bionic limbs peaked in approximately 2065 and have been on the decline since that time. This is due to the then-maturation of rejuvenation technologies allowing people to keep their original limbs in perfect condition. Even so, bionic limbs are still available and some individuals opt for them based on their potential to be designed in a highly artistic manner and/or for the convenience of having toolsets available in their fingertips. The vast majority of examples don't look like they're made of flesh, rather being obviously metal or polymer, but all of them have the same sensory, flexile and strength traits that a real limb would.

It is more common for military personnel to have bionic limbs as they are authorized to have both armoring and weapon systems built into them. Some also see it as a way to honor their battle wounds, much like scars were in ages past.

BLACK-LEVEL DETAINMENT (Piper Protocol): While conspiracy theorists may have been right about this in the past, by 2118 the government is in fact practicing citizen detainment outside of normal legal methods. While not publicly acknowledged, the "Piper Protocol" (after the Pied Piper of lore) is the means by which the likes of DIS can apprehend and incarcerate any citizen for any reason it deems fit, all without the concept of just cause as a normal judiciary would see it. The result is simply that the person vanishes, although in some cases they reappear later, only to either not know what happened to them or be unwilling to tell the truth.

Typically, local law enforcement is notified that they are not to intervene in the matter; if the incident later attracts attention it is always handled by a coordinated media cover that leaves no serious questions about what really happened.

C

CALORIC MITIGATION COMPOUNDS: These substances range from exercise-mimetic drugs to chemicals that break down and bind to fats and sugars before the body has any chance to absorb them. They are primarily used in high-calorie foods such as desserts to counteract the usual negative health effects they have on the consumer; in 2118, junk food has largely lost its negative impact. Unfortunately, such foods still aren't useful from a nutritional standpoint, and society still has issues with getting people to eat well.

COMMUNICATION IN 2118: Over the past century, what was commonly known as the "internet" has matured into what is now more commonly referred to as The Global Web, or just "web". Due to the fact that basic use of the web is free in all tech-developed nations and includes access to augmented reality (AR) and virtual reality (VR) environments, most people no longer feel the need to meet in actual person, especially over any kind of significant distance. Activities such as shopping, conducting business meetings and even dating are usually carried out via some form of an "avatar-self", some of which are mandated to appear as the actual person does by law.

CRANIAL PORTS: Cranial ports are a form of brain-computer interface and look like a metallic interface port (or set of ports) implanted in the skull of the user, usually the side. They are unobtrusive and normally difficult to see, residing within the hair of the user (although some users shave their hair around them to make them obvious). Nearly all cranial ports are restricted to the military or government agents, although basic models are publicly available for those who want totally immersive VR sensory experiences. Typically such a user will use a hololink for their other needs.

       Cranial ports can be far more powerful than hololinks in that they support advanced direct-wire brain interface and act as controllers for a wide range of implants that grant superhuman abilities, none of which are available to the public.

CULINARY UNITS: While fine dining and human chefs still exist, nearly all food in 2118 is prepared by culinary units, or "food printers". Even the most basic units can prepare hundreds of dishes when loaded with the right ingredient sources and nearly all prepare non-alcoholic drinks as well. New recipes are easily purchased off the Web and are a large percentage of modern commerce.

D

THE DEPARTMENT OF INTERNAL SECURITY (DIS): Officially a divison of the FBI, the true nature of the DIS is that of an independent special-forces operation responsible for dealing with "restricted" technological threats. Established in 2078 due to the skyrocketing rise in cybercrime and rapidly evolving weapons systems, DIS is charged with suppressing and preventing incidents that, should they become public knowledge, would cause widespread panic or otherwise radically change the impression of what humanity is capable of.

DIS INVESTIGATIVE AGENTS: As a special-forces operation, DIS is structured to serve its particular mission - finding, and then neutralizing high-technological threats. They recruit the best operatives the world has to offer to accomplish this, and its Investigative agents possess skills focusing on both perception and communication; they are as likely to be found mining enormous amounts of data as they are to be talking to potential contacts or informants.

> In most cases Investigative agents aren't sent into dangerous situations without an escort, but danger can't always be foreseen. Due to this, many such agents also possess impressive self-defense skills, and they have full access to both the bionics and equipment that DIS has to offer... even if they might not choose to use all of it.

DUAL-ELEVATOR SECURITY ACCESS: While it is unknown when this tactic was first used, the system of using a hidden, secondary elevator is not new. The main benefit is not in that it is hidden, but that the elevator can be quickly dropped to its base during a security breach, likely with several reinforced barriers moving to block shaft access above it. This makes wherever it leads to much more secure.

E

"ENE"-TYPE MATERIALS: These materials are two-dimensional, meaning they are organized as single atom-thick sheets and then processed into whatever is needed. The most vital one is graphene, this being used in high-strength surfaces, superconducting circuits as well as many other things.

These materials are perfectly legal for use by the general public as a substance even if some of their applications may not be.

EXOSUITS: Exosuits are powered armor used by the militaries of the tech-developed world. First deployed around 2025, they have increased in utility exponentially since then. While their sophistication varies from country to country, all provide at least some measure of extra protection, mobility, and an enhanced weapon platform. Most of them also provide BCI uplinks and the best have very powerful sensor suites.

Of course, exosuits have also been adapted for use by paramilitaries and also certain criminal organizations; whether governments like it or not, they are now the new standard of warfare. To that end, new upgrades are continually being developed on all sides, many of which are both unconventional and deceptive.

F

FINGERPRINT LOCKS: These are now considered medium-security devices at best, but nevertheless continue to be used as copying a fingerprint (or on-the-fly forging one) remains beyond the abilities of most thieves. They can be found in many otherwise more secure locations due to their low cost, more of a means to ensure that only the right personnel have access to stored goods than anything else.

G

NO ENTRIES AS OF YET

H

HOLOCAMS: These are sets of special cameras that work together to produce augmented reality avatars. Most of these are installed in rooms such as an individual's living room although some come in the form of small, flying drone swarms that can perform recording in most environments. These are typically based out of a back or arm-based frame.

Holocams usually project a "circle of light" to denote where they are trained on; most systems are not designed to track quick movements and expect the user to mostly stay still.

HOLOLINKS: In 2118, these are ubitiquous as the means of communicating among nearly everyone in the tech-developed world. Hololinks are small, plastic attachments that affix to the scalp. They are designed to reside within hair and come in a wide range of colors so as to match the hair color of the user.

Among the many functions they have they act as a wireless brain-computer interface and are commonly used to activate devices owned by the user. They support standard augmented reality interfaces (with deployable visor) and most can project sound to the surrounding area as well. Also, all models have automatic translation functions.

The vast majority of hololinks are usable by the public; that being said, some hololinks are much more advanced than average and may or may not be as available.

HOLOPROJECTIONS: In 2118, augmented reality constructs and images (usually referred to as "holos") match the resolution that the human eye can perceive; they can look identical to real objects. As this can cause harmful or even fatal confusion, nearly all AR interfaces and holos are altered in some way to seem "not real" somehow, usually by giving them an unnatural blue glow or sheen. When dealing with the holo (avatar) of a person, they will have a bluish, semi-transparent bubble around the otherwise perfectly human-seeming holo, making it clear that they are not actually there.

I

NO ENTRIES AS OF YET

J

NO ENTRIES AS OF YET

K

NO ENTRIES AS OF YET

L

LASMIC PROJECTION: First pioneered around 2017, LASMIC is the amalgamation of laser, plasma and sonic applications to create non-physical objects that anyone can interact with. LASMIC is generally used to ensure that people without augmented reality interfaces can still get images and messages and is often projected as a simultaneous overlay to what would be an AR interface; this way, AR interface-enabled people don't see two images.

While most hololinks don't support LASMIC, the more advanced models have emitters and virtually all public establishments use them on tabletops or such as well.

M

MACHINE INTERFACE AUGMENTS: Commonly known as "hacking" augments, these highly restricted devices allow the user to take direct control of remote devices and potentially use them in unintended ways. As by 2118 nearly all devices are wireless-enabled, this is extremely powerful; all the user needs to do is overcome whatever security protocols exist on the target device. Given that these augments are always supported by an advanced BCI, users have what amounts to a superhuman brain to back up their efforts.

MEDICAL MONITORS: Nearly all modern hololinks possess systems that constantly monitor the health of the user.   Even the most basic versions will track vitals such as heart rate and EEG as well as situations like hormone or neurotransmitter imbalances. More advanced models can go so far as to do things like real-time cancer screening and shock compensation via adjusting hormonal levels in the body. In all cases medical monitors are designed to transmit data on medical emergencies to nearby paramedic teams; in the age of indefinite lifespan staying alive is an even higher priority.

N

NANOFIBER RESISTANCE CLOTHING: General clothing in 2118 is created from synthetic fibers that have resistance to damage built into them. Tear-resistant clothing is the norm, with most of that being impossible to pierce or cut except by special tools. Less common is explosive-resistant clothing, the majority of which requires a license to produce or possess. Both of these and more are typically found in protective gear of all kinds, both for combat and industrial-related activities.

O

NO ENTRIES AS OF YET

[P](#)

PASSWALL SCANNERS: A common tool of law enforcement is the "passwall" scanner, which effectively lets the user see through the wall in front of them. They use several different scanning approaches at once in order to maximize the data obtained; the area behind the wall is then reconstructed in an augmented reality format and displayed to the user.

Despite the impressive nature of the science involved, the range of the scanner is still limited and it normally cannot "see" through two walls in succession.   It can sometimes see through a door behind the wall, although this tends to be inaccurate. Further, certain substances such as lead are still as good at blocking scanning as ever, and the user may not even be able to tell what is causing the blockage from a distance.

PERSONAL DATA IN 2118: In 2118, everything from a citizen's eye color to their DNA map is known to the government and stored in secured datacenters. This, along with improved forensic methods has led to a massive drop in crime, but not without a cost in personal privacy; the government can and will investigate any citizen for any reason that seems required.

Fortunately, there have been no data leaks from the "identity datacenters" as of yet... or at least, if there have, it's never yet come to light.

PETS IN 2118: The only major difference between pets in 2118 and one hundred years earlier is that they can now benefit from similar rejuvenation treatments to that which humans do. As such treatments have been at mass-market prices for some decades now, virtually all pet owners opt to spare their companions from the same debilitating effects of age that they themselves choose to avoid.

Q

NO ENTRIES AS OF YET

R

THE RECLAMATION: The first known activities of the neo-luddite organization known as The Reclamation were in 2010 when they, seemingly out of nowhere, began a significant recruitment drive. Eschewing all technological concepts that originated after the year 2,000, they have since gathered tens of thousands of individuals committed to a throwback lifestyle that places a strong emphasis on community and personal connections. They continue to grow, mostly by way of word of mouth.

       Perhaps the most disturbing aspect of the Reclamation is that their members voluntarily reject rejuvenation treatments. While no-one involved has yet been able to actually suffer the consequences of this decision, that anyone would even make this choice has been seen as a commentary on the underlying problems in modern society.

REJUVENATION TREATMENTS: These became a reality in 2049, the rather sudden culmination of what had been a long and drawn-out process for decades beforehand. Administered every five years, they are a suite of bioengineered processes that both reconstruct and refresh the body at the cellular level. The typical process involves keeping someone between the age of twenty-five and thirty where they are; if necessary a more intensive process can both halt and slowly reverse the biological age of someone older.

       In some cases the rejuvenation process will include aspects of traditional regenerative medicine, genetic therapy or even bionic augmentation; no two patients have the same needs and time has a way of subtly altering even the seeming ageless.

RESTAURANTS IN 2118: As is the case in most areas of the economy, by 2118 automation has removed humans from many parts of most restaurants. Seating, ordering and payment are all handled by the customer's personal ANI assistant. In cases where the customer doesn't have one, all of this is handled by the restaurant's own ANI assistant and communicated via LASMIC projection (as that can be seen by anyone without assistance).

       There are in fact still a few humans on the payroll, however. The food itself is still prepared by human chefs; few to no customers will go out to get a meal they could otherwise print for themselves at home. Further, there are also other human staff available to serve the food and deal with any problems that may arise. They are also ready to otherwise assist those customers who would rather not deal with machines.

<u>S</u>

SCANALYZATION PADS: Physical tools and the like aren't used much in 2118; most items are created via fabrication units and when repaired at all use simple modular swap-out parts. Still, sometimes objects need to be examined or analyzed, and the common way to do that is via a scanalyzation pad. These dark silvery-blue panels can be found on many work surfaces and use a wide range of approaches simultaneously to both scan and then analyze the object. They then transfer everything they find to the system connected to the pad.

       While scanalyzation pads are legal in general, individual examples might not be available to the public if they're particularly sensitive.

SECURITY SYSTEMS IN 2118: There are a wide variety of security systems available for public use, most of which use a "palm print" as their central interface. However, rather than just reading the actual print, these interfaces also perform a DNA and general biometric scan as well, and most also require voice activation in addition. The idea is that while a criminal might manage to bypass one of the systems, they will have a much more difficult time bypassing all of them at once.

       Additionally, such systems are required by law to be connected to the national security grid; this allows for identity verification to be backed by the official identity datacenters, thus cutting down further on the chance for errors. Of course, it also allows the system to be bypassed by anyone legally authorized to do so.

SENSOR PACKAGE AUGMENTS: This is called a "package" because it incorporates many different types of sensory and scanning technologies into a unified central design. It is controlled by an advanced brain-computer interface and is entirely resident within the user's body; it acts to enhance the user's natural senses and also to grant entirely new ones as well. With training and experience, it becomes second nature for the user to simply perceive and understand far more than a normal human would be able to, and it is equally easy for them to transmit what they discover.

       Sensor package augments are squarely within the realm of espionage devices; external scanning hardware can do the same thing if in a much more visible and less portable manner. Due to this, the augments are restricted by all governments to special-forces personnel only.

STAMINA AUGMENT: Stamina augments are bionic systems designed to remove fatigue and increase endurance dramatically. In circumstances where no real physical exertion is taking place, it is normal for a stamina augment user to find that they no longer need to sleep or even rest, although they can still do so if they wish to. Furthermore, stamina augments are frequently required for other types of bodily-enhancing augment systems to function properly as they work to counteract the extra strain placed on the body by such.

       Stamina augments are not available to the public, being restricted to special-forces untis only. This is partly because there are other ways for the general

military and public to enhance their stamina via exosuits or medicines but more because of how stamina augments enable other, more dangerous augments.

T

NO ENTRIES AS OF YET

U

NO ENTRIES AS OF YET

<u>V</u>

VIEWING ROOMS: As most work is now done via AR interface, the replacement for the traditional office setup is simply a darkened room with furniture in it, the better to easily interact with what is seen "on screen". Some of that furniture may contain direct wire-links for secure communication where wireless isn't sufficient, or may have scanalyzation pads.

W

NO ENTRIES AS OF YET

X

NO ENTRIES AS OF YET

Y

NO ENTRIES AS OF YET

Z

NO ENTRIES AS OF YET