Reading Future Change 2

Unit 1. Artificial Limbs

The artificial limbs are designed to function normally in people who underwent the surgery. The mechanical devices that made it possible for the amputators to walk or use both hands again were used from ancient times, and gradually improved to feel like a part of their actual body.

Recently, Italian and Swiss researchers have succeeded in implanting patients with prosthetic limbs that give them a sense of what they can do with their hands. When the clinical tests are complete, it is believed to be able to see people with disabilities with tactile prosthetic devices.

A team of Korean researchers has also developed a bio-muscled actuator that works with high power, lightweight artificial muscles required to implement a sensory piece. It is expected to be able to produce greater power than a motor-mounted actuator, making it available for wearable devices and artificial intelligent robots as well as cutting and artificial limbs.

Recently, an Iceland manufacturer has come up with a new type of prosthetic leg. It features an immediate response to the user's intentions, allowing him to move freely under his ankles. The reason why it controls its prosthetic limbs is because of a new transplant sensor, which immediately detects and contracts signals from the brain to the muscles. The way sensors are connected to the nerve endings makes surgery very simple.

In the near future, we expect robotic legs and prosthetic limbs that are closer to the actual limbs to be of great help to many patients.

Unit 2. Seeing Red

We are living under the influence of color unconsciously. If, for instance, you are nervous about a major sports event and don't sleep well, a red sportswear could help. Also, if you want to get more money from the restaurant, I recommend a red uniform.

According to a study by French and German psychologists, players dressed in red sports clothes receive an average of 13 percent more points in the game, and employees wearing red uniforms tip an average of 30 percent more points.

Color has different meanings and modes of expression. In France, red means "free," but Germany takes it as a symbol of "dangerous," and the United States takes it as a symbol of "anger." In Britain, black means bad luck, but it is used for good in Korea.

The Rochester Institute in the United States released a study that said, 'When a person sees red, they increase their strength and speed when they react to instructions.' For instance, when you raise weights, if you look at red, you can lift more weight than if you don't see red.

This is because the instant response to the color red is based on the human instinct for fear. Long term exposure to red can cause anxiety and distraction. In sports games, people are more likely to be overwhelmed by colors when they wear red equipment or clothes, and to score less if students take the test in a red room. In other words, red can boost instant power, but it can also be bad for the long term.

Unit 3. What's That Noise?

Noise pollution refers to the unpleasant noises made by people or machines, and the noise is both offensive and loud, representing traffic noise, factory noise, and aircraft noise. Recently, noise from daily living, such as the noise from home and construction sites, has also been increasing.

The European Union has called noise a 'silent killer who has a serious impact on the health of the body and mind.' If you continue to be exposed to noise for a long time, you may experience poor concentration and body aches, such as headaches. Noise acceptance criteria to the extent that they are harmless are 50 to 70 dB during the day and 40 to 58 dB at night. If you continue to listen for more than one month to sound above the permissible level, it can cause disabilities such as poor hearing, reduce concentration, and disturb your studies and work.

Noise gives people pain, but it also hurts animals. Animals that are sensitive to sound can cause problems with stress.

One of the major conflicts these days is the noise between floors. High-pitched pollution that occurs in apartments such as apartments, but it is also referred to as all of the noise from turning off tables, children running, pet sounds, and television sounds.

The loudest city in the world is Guangzhou, China, Cairo in Egypt, Paris in France, and Delhi in India.

In Chile, as the volume of cars increases, noise pollution becomes more severe with the traffic congestion, making laws related to noise pollution regulations.

Unit 4. Understanding the Heart

The heart is the hub of the circulatory system, which is responsible for circulating blood, and acts as a pump to supply blood to the entire body by regularly shrinking and loosening.

A heart about the size of a fist is made up of thick muscles, two atria and two ventricles. The atrium is divided into the left atrium and the right atrium, which is connected to the vein where blood enters the heart. The ventricles are divided into two halves: the left ventricle, and the right ventricle is connected to the artery where blood is released. The ventricles are made up of thicker muscles than the atrium, making them suitable for releasing blood.

The valve acts to prevent blood from flowing backward. Exercise in which the ventricles and atria routinely receive and release blood as they compensate and relax is called the heartbeat and is the trigger for blood circulation.

The heart beats about 72 times a minute, sending about 5 liters of blood all over the body. It beats about 35 million times a year. The heart of a seventy-year-old person runs about 2.6 billion times in his lifetime, circulating 180 million liters of blood.

British scientists published a study on why women live longer than men. The key to women's longevity over men was the power of the heart. Women keep their 20-year-old heart intact at the age of 70, while men lose up to 25 percent of their functions. The fact that women's hearts are much stronger explains why they live longer. Men's hearts go down relatively quickly, but they can be prevented with regular exercise.

Unit 5. Hypertext Literature

Hypertext is text that is immediately accessible to the reader from one document to another through hyperlinks. It is usually displayed by computer or other electronic devices.

The word was first used by Ted Nelson in 1960, but it is also called derived because it combines text with hyper (excessive). If an existing document is a sequence of hierarchical structures, hypertext has arbitrary and listing structures that change its sequence with links. Readers can freely move documents connected to hypertext rather than following the author's wishes. The advent of hypertext, along with search engines, allowed people to learn new information. There was also a new art genre called Hypertext.

Hypertext consists of nodes (nodes) and links (links, hyperlinks), which are the paths to link documents to one another. A node is the smallest unit that comprises a hypertext system. The most important component in a hypertext system is the link to this node. We can get information by going back and forth between different documents and making the information we know into a document and link it to other documents.

It is the Internet that a large number of information sets are bound by hypertext. To make this Hypertext, you need a programming language called HTML. HTML is a command that specifies the color, shape, and size of characters in Internet documents and inserts pictures or hyperlinks in them.

Hypertext is pointed out that unlike most documents, only 'fragmented' information is available. On the contrary, the size of the information can be expanded infinitely as there is no beginning or ending, and only the information you want can be selected and received depending on the needs of the reader. In this age of information, the ability to select good information and connect it correctly is necessary.

Unit 6. Types of Literature

Literature is a work of art that uses language as a medium for expression, and it refers to poems, novels, plays, reviews, essays, and diaries. Let's take a look at some of the different literary genres.

Poetry is a sentence expressed by compressing the feelings that come to mind into a rhythmic language. It is the oldest form of literary work and one of the most popular genres in literature, along with novels, plays, and essays.

A novel is a fiction created by imagining a likely story in real life. In English, the novel is novel, but French, which means "new," has been moved to Italian, Latin, and changed back to English. Before the 18th century, love stories and adventure stories were popular, and after the 18th century, they were considered a form of literature reflecting the lives and experiences of humans.

A play is a literal representation of a character's actions and stage effects centered on a line. It is the basic building block of a play, such as an audience, actors and theaters. The novel describes or describes all of the characters, settings, and events, but the play is expressed as a line between the characters.

A news article is a story that delivers news, and it contains the demands of the Three Kingdoms principle. As a description of the facts, it is the rule to write the articles objectively rather than the writer's own. The content of news articles should be accurate, clear, and not partial.

An essay is a piece of writing that gives free rein to the thoughts and feelings of everyday life, regardless of the format. Anything can be written in a free form and the writer's personality lives. Depending on the topic, it can cover lighter topics like daily life and heavier topics such as social issues.

Unit 7. Poems We Love

Have you heard of Shel Silverstein's "Early New" poem?

Oh, if you're a bird, be an early bird

And catch the worm for your breakfast plate.

If you're a bird, be an early early bird —

But if you're a worm, sleep late.

Shel Silverstein is the author of "The Giving Tree." In the poem above, we were used to mean to live in moderation according to one's ability.

In fact, it is a bad habit to wake up too soon. This is because insects, the prey of birds, have to fly in the sunlight to get warm.

There are many different parodies in the above article.

For listeners, it says, "The early bird is eaten," or "The early bird is more tired."

Unit 8. Anne of Green Gables

Anne of Green Gables is a Canadian female author Lucy Maud from 1908. The original title is "Anne of the Green Devils." The emotional and talkative process of Anne Shirley's body and soul development is described by her rich emotional and vocabulary. It is composed of 38 chapters and describes the characters ' feelings and descriptions of Avonlea, the country of Prince Edward Island, the hometown of the author Lucy.

A red-headed freckly orphan girl is adopted into a green roof house in the town of Avonlea. The Cuthbert brother and sister plan to adopt a boy to help with farm work as a single family, but the girl is adopted in the error of Mrs. Spencer. Ann made the surroundings brighter with her whimsical appearance of a dreamer who named everything after itself.

In the town of Avonlea, Anne has come across a wide range of human relationships, where she learns the depths of life and love. The positive mindset and attitude of Ann are also starting to move the hearts of adults.

Anne works hard to repay the kindness of her adopted brother and sister, and she will enter a teacher's school first, and even receive a college scholarship. But after a sudden death of Matthew Cuthbert, he became very desperate and eventually decided to stay home after giving up college. Growing up as a smart lady, Ann learns to heal the wounds of her unhappy childhood and love herself through all the people she loves and cares for.

Unit 9. Digital Money

Digital currency is a currency that exists as computer data. Since the computer was invented, it has been able to store various data in digital files that do not take up physical space rather than making documents and storing them in filing books, and instead recording the financial transactions efficiently. So the financial sector actively introduced digital technologies. Many of the money had already been credit, a number written on the books, rather than real bills, so there was no major difficulty replacing it with digital ones.

In this context, a virtual currency is shown, a digital currency used as a currency between certain users.

The European Central Bank defined virtual currencies like this:

"It is a type of unconstrained digital currency that is issued by the developer, controlled primarily by the same developer, and recognized and used within a particular virtual community."

Bitcoin is a virtual currency and is the way it works. It's a code we can't get our hands on, but it's a code that floats online. Bit coin has no owner and is not cash operated by a particular individual or company. The operating system is distributed over multiple user computers in a peer-to-peer fashion. Every person who makes, trades, and changes the bitcoin into cash becomes a bit-coined sender.

A bitcoin account is also called a wallet, and each wallet has its own number, which is composed of about 30 letters, English alphabet, and lowercase letters. One person can make multiple wallets, any number of times, and a separate program or website is required to make wallets.

There is no central bank that plays a role in bitcoin. Instead, anyone can make bitcoin. When you solve math problems on a higher-performing computer, you get bitcoin in return. This process is called "mining," and a person who makes bitcoin is called a miner. The miner soon becomes the Mint in the bitcoin world.

As of August 2013, the 1-bit coin was about $ 120, but now it has jumped to $ 11 million. Many say it is impossible to assess the value of bitcoin at present.

Unit 10. The History of Money

Money is the medium of exchange between people with a fixed value. Long ago, there was no money, and I bartered for anything I wanted. Barter was a lot of trouble. It's hard to carry things around, hard to find someone with what I want, and I might not need what I have. That is because the barter system is not established. It is also because things may have different values. I would like to change one cow for 10 sacks of rice because the other person may want to exchange it for a half bag of beef and four bags of rice. Money is used to remove these inconveniences.

Money was first made of goods such as rice, salt, and shell, but it was so uncomfortable to carry around and easily that it created metallic coins such as gold and silver. Money had to be easily accessible, plentiful, and durable. It also had to be an alternative, easy to carry and reliable target, so metals such as gold, silver, or bronze met these criteria and made the materials ideal for thousands of years.

Since then, coins, bills, checks, credit cards and e-money have come into use today. Nowadays, they use credit cards and electronic money more than coins and bills. By 2020, it is likely to be a "coinless society."

Unit 11. Shopping at the Stock Market

A certain equity stake or securities in which a shareholder invests in a corporation is called a stock. It takes a lot of money to make a company or a factory, so that you can issue stocks to attract investors to the company. If you buy stocks, you become the owner of the company and you have the right to exercise the rights as you do the stock you own. People who buy stocks are called shareholders.

He runs the company with the money he has collected from the stock and shares the profits with the shareholders. However, if the company doesn't manage properly and loses money, it may not be able to get back any of its stocks. So you have to be careful when investing in stocks.

Children can also make stock investments, and minors should go to securities companies with their parents and study about the companies and stock markets they are investing in before investing in stocks. Recently, parents are training their children in investments by giving them stock purchases and experiencing the consequences of holding stocks. You experience an increase in the value of your shares and realize that keeping them increases your fortune.

In the past, it was possible to order goods from the market or to sell them through stock brokers, but now it is possible to invest directly using the computer with the development of the Internet, and it is much more convenient to trade.

Unit 12. What are Credit Cards?

A credit card is a card issued by a bank or credit card company to people with credit cards. A member of the card issuer's contract may purchase the goods without cash. Money can be easily lost and inconvenient to carry around, so it is convenient to carry a card, and you can reissue it even if you lose it. On top of that, you can use the various services of the card company.

Today, credit cards were first introduced to the public by the Diners Club, which was established in 1951 by Frank McNamara of New York. With Diners Club cards, you could buy food, fill with gas, pay hotel room, and serve clients at franchisees across the United States.

There were two problems with the early credit cards, one being that retailers would start receiving cards from high demand, and the other would be from many retailers. In 1958, Bank of America sent a plastic credit card, Hanwha, with a credit limit of about 5.5 million won, to 60,000 customers. Other banks began copying and by the end of 1960, Bank of America had distributed one million credit cards.

Another problem was the inconvenience of having to call the bank and have to talk to the teller machine in order to approve the credit card transactions. However, with the advent of a new technology called magnetic force, a store scratches the information at a store, sends it to a bank, sends the information to a visa network, and sends a message to your bank.

If you use a credit card, you don't have to pay it immediately, but you have to pay it back later. If you can't pay your credit card or pay back your loan, you'll be a credit delinquent. When you become a credit delinquent, it is difficult to lend money, get a job, and travel to other countries. Correct spending habits are important.

Unit 13. A Face Like No Other

Face recognition systems are one of the most commonly seen scenes in SF films. Put your face on the robot or scanner and the door opens. Face recognition, which was expected only in the distant future, is about to be realized.

Face recognition is largely divided into two categories. It is a process to extract the face area that distinguishes the face from the rest of the video clip, and to recognize the face that identifies the face that was found.

Face area extraction is an essential pre-processing process for face recognition. Information such as brightness, movement, color, and location of the eye is used to separate faces from the background, making it difficult to use only one variable to collect more than one complementary method after which information is collected.

The face recognition function of digital cameras is based on this feature, which automatically compensates the face of the subject by forming a rectangular detected area.

A variety of studies are being conducted in the face recognition process after face area extraction, where it is necessary to determine a face based on the distance and shape of its eyes, nose, and mouth. For instance, it is difficult to tell exactly when glasses, hats, or hair cover the face.

The most common method used is the "primary component analysis method," in which mathematical techniques are used, and the efficiency of analyzing a given picture is compared to other features.

The application of face recognition can be used in a variety of fields, such as for identification replacing passports, credit cards, and others, and for security reasons such as password substitution. Recently, mobile phones and laptops are equipped with face recognition features instead of entering passwords.

Unit 14. Frank's Lunch

The United States dollar is the currency used in the United States, and it uses the dollar symbol, the common dollar symbol. Since the dollar was designated as the United States currency in 1785, it has become the most popular currency in the world. Some countries use U.S. dollars as their official currency, and credit card voucher purchases and international crude transactions can also be settled only in U.S. dollars.

Let's take a look at some of the terms that are used to call the money of English-speaking countries.

1. England

The British monetary unit is a pound, and it is generally called the pound and pound. (1 pound = 100 pence) The currency mark shall be fifty GBP or fifty pounds, and a coin smaller than £ 1 shall be called pence (p). (50 pence = 50 p)

2. The United States

The monetary unit of the United States is divided into dollar and cents, (1 dollar = 100 cents) the currency mark is called USD 100 or USD 100, and coins of less than 1 dollar are written as cents. Paper money is called dollars. A dollar can be expressed as a single dollar, and the slang word "Bucks" stands for "dogs."

1-cent coin = a penny.

5-cent coin = a nickel.

10-cent coin = a dime.

25-cent coin = a quarter.

3. Canada

Canadian currency is called dollars and cents, and it is expressed as 1 CAD, C $ 1, and 1 dollar. In general, money is called dollars. Interestingly in Canada, there are both $ 1 and $ 1 bills, so one coin has another name: a loonie, and two coins are called a toonie (two).

Unit 15. The Mistake on Mars

The method used to measure length, volume, and weight is collectively called the weights and measures. Currently, the nation is using the metric system as a standard measure, and 95 percent of the world's population is used as a standard measurement except for the United States, Myanmar, and Liberia.

The Metric system is the decimal system of international weights and measures based on meter (m) and kilogram (kg).

During the French Revolution in the late 18th century, the new French government sought to overhaul the system based on the spirit of reform. There were about 800 weights and measures being used in France at the time, and the French Academy of Sciences proposes a metric system that measures a meter of "one-tenths of the Earth's meridian length."

In 1790 France's politics proposed the "Metric System" for the unification of the European Union with the basic units of length, the inclusion of the metric system made it easy and superior in the 17th year 1875 was recognized to include the decimal system.

There are events that demonstrate why it is important to unify the weights and measures of 1999. NASA's unmanned Mars probe exploded in conflict with the atmosphere because of the difference in weights and measures between the companies that made it.

As the country has long followed the Joseon Dynasty's metric-and-scale method, it took time for the metric system to settle down. In 1876, with the influx of Western cultures and commercial activities by foreigners, it was suggested that the international weights and measures should be followed, and in 1961, the basic unit of legal measurement was set by the metric system.

Unit 16. Measuring Animals in the Wild

What Is the Biggest Animal in Earth's History? It is the blue whale. I realize that it is large, but it is much more easily understood when compared to something. For instance, if we think that blue whale tongues weigh about the same as an African elephant, then blue whale is made up of 25 African elephants. It can be imagined to be a truly colossal size.

We know the largest predator on Earth is the blue whale, but it is actually a little larger but a little lighter, making it the megalodon, the largest predator on Earth by weight.

Currently, only a few pieces of Megalodon's hard teeth and spine remain fossilized, so scientists studied how tall Megalodon may have been by entering the formula.

Megalodon, recognized in the scientific community, is 15.24 to 18.28 meters in maximum size and weighs 50-70 tons. In 1909, the first attempt was made to restore Megalodon's jaw to measure the actual size of the magalodon, a method commonly used by scientists to measure the size of the tooth. Very few Megalodon's teeth are more than seven inches tall, and they are based on the correlation between the size of modern sharks and the length of their bodies, making formulas, and finally measuring the length of their teeth.

An extinct animal can roughly calculate its size from a portion of the fossil, and the size of the whale is then determined from the size of another species when the whale's body is driven into shore.