A New Era of Intercultural Communication

The Arrival of Mobile Internet Era

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Abstract—**The barrier-free intercultural communication is human communication ultimate goal; However, throughout thousands of years, people have not been able to achieve it. The mobile Internet era, with its technological innovation on integrating and coordinating multiple networks, has provided a new way to solve this problem. In the mobile Internet era, the earth has become a global village in a real sense. The machine-aided translation gradually replaces human translating, while the methods enjoyed by the audience are provided to disseminate translated information. It shortens the human translation time and alleviates the obstacles of intercultural communication in variety of presenting-mode.**

Keywords—*intercultural communication; mobile Internet era; new communication; barrier free communication*

I. THE CAUSE OF THE OBSTACLE OF INTERCULTURAL COMMUNICATION

The intercultural exchange and communication without obstacles has always been a human wish. There are about 2000 nations and over 200 countries and regions in the world. They speak different languages and have different values, which has caused difficulties and obstacles in intercultural communication. As yet, it is still very difficult to verify the time when the communication barrier between people and races started. From Section 3-9 of Chapter 11 in "Genesis ", we can see a clue: "They said, come on. Let us build a town a tower leading up to the heaven to spread our name, so that we will not be scattered here and there on the earth." Jehovah came to see the city and the tower built by these people. He said, "Look! They have become same people and speak same language. Now they have done this thing, then there is nothing they can't do in the future. Let us go to the earth to make a mess of their accent so that that they may not understand one another's speech. Then Jehovah dispersed them across the world to stop building the city. The city was Bable (meaning turmoil) where the same language was made different by Jehovah and the people were scattered all around the world. The construction was terminated and the city could not be built." "It could be seen that in the Bible story, Babel is the creation of human being and a human designed 'sky ladder'. It is the origin of human language diversity and translation. It is self-evident that this is a pure and metaphysical origin." [1] Besides, different languages make obstacles in the intercultural communication, and the geographical limit is also an important reason for the difficulty of intercultural communication. The multiplying of mankind has important relations with geographical relations. In order to adapt themselves to different climate belt, they produced a different living mode, for example, the Eskimo in Arctic Circle living in largely depend up meat, while the people living in the warm areas live on fruits.

The intercultural communication difficulties urged translation to solve this problem. More than 2000 thousand years ago in Europe, translation came into being to facilitate the spreading of the religion, i.e. The Bible in very old Hebrew language and Gospel in Arabic was translated into Greek and Latin for spreading. In our country, it is said in "The book of Rites – System of King" that "The people in five regions speak different languages... to express ideas and make them understandable are called translation in the north China." In the division of labor in society, this profession division translation appeared to solve the problem of language barrier. Along with the development of society, the information demand increased largely. The shortage of human translation gradually emerged, and the machine aided translation was designed to cope with the problem of human translation.

The computer aided translation originated in the late 40's of last century. British engineer Buss and American scholar Weaver put forward the idea of using computer aided translation. In 1966, the ALPAC (American Language Automatic Processing Advisory Committee) thought in its report that the computer translation does not have prospect. Until the middle 80's, the computer aided translation met its prosperity. With the development of the Internet, the computer translation met another great development. The abundant Internet resources gradually made up for the inaccuracy of computer translation and the incoherence of context. With the constant renewal of computer translation technology, it laid an important technical foundation to realize the human intercultural barrier free communication.

II. THE MOBILE INTERNET OPENED A NEW ERA OF INTERCULTURAL EXCHANGES

William Gibson published his "Nerve Rover" in 1984. The author was not able to use computer in writing, and did not use the internet. But it did not impede him to make an accurate prediction of future life. The book successfully predicted the network survival state. The cyberspace is a word from the book. He became the father of the cyberpunk movement. So the book is so far the only one to get three

major science fiction awards, namely, Award Hugo, Nebula Award and Dick Philip Award. Imagination is one of drive for human development. It is a window, a window allowing people from the present state to see a future dream. Because more people can see the dream, so the dream being seen guides much more people to struggle for it. Under the guidance of the dream, the life described in the science fiction gradually becomes a reality.

Unconsciously, we have begun to walk into a life like this. As far as "use" is concerned, a few years ago, we used to pay cash. Gradually cash payment method was replaced by credit card payment, followed by other modern payment methods such as mobile wallet, two-dimension code payment, etc. In April 2014, the domestic largest retail website Taobao proposed "kongfu" new payment concept. In this mode, taking a picture of and a sample of a object with an unique characteristics, through authorization, plus setting the upper limit of an amount of consumption, convenient and fast payment can be made in the transaction by scanning the sole featured object, which could be any objects with special lines, such as face, tattoo, pet, photo, etc.

For "wearing", smart socks series. Heapsylon Company in Washington, US, successfully developed Fitness Sensoria fitness smart socks. Its smart device is composed of conductive fabric and micro sensor. The micro sensor is located at the bottom of socks and comprises 1-2 pressure sensors to relevant motion data, such as user feet landing position, the sole of the foot pressure distribution area, stride size changes, pressure duration, etc. The collected data is transmitted to the U type anklet for treatment. The ankle is absorbed to the front of upper part of feet by 5 magnetic copper nail. It is very light and will not bring discomfort to the user movement and the appearance. The CPU in anklet searches and disposes the data collected and then transmit these data to the APP software of its matched smart phone.

For the food, currently, the smell-related technology has a breakthrough. The US meat company Mayer Oscar launched an App application Bacon alarm clock which can be used with iPhone. This is a wake-up alarm clock giving off a smell of bacon. When it reaches the preset alarm time, the App application will emit grilled bacon sizzle and bacon's scent to awaken users. The alarm interface design image is simple and intuitive so that users can operate it easily. Turing the handle of frying pan of the interface can set the alarm clock. The smell of bacon is sent off by dongle connected with a mobile phone and it is as delicious as a piece of bacon baked in the kitchen. The smart mobile phone supported by its peripheral hardware equipment becomes simulated kitchen. China's Effisystem Company launched Mist Shine, a taste wearable device which is well-matched with the caller identification code of a mobile phone. When the device is connected to the mobile phone by bluetooth, you set relevant application procedures to notice incoming telephone call and set a smell fragrance. When the designated person calls you or sends messages, Mist Shine can release the specified fragrance. The shape design of Mist Shine is pretty small, like an ordinary pendant. It is an artwork with both fashion and technology.

The scientific and technological information can be seen in articles, wearing and food. However, this just shows the tip of the iceberg in the coming of the mobile internet age. The mobile Internet era is not the traditional meaning of the mobile Internet. Including the mobile Internet, it can, through any software and hardware devices, access network for social activities, generate economic benefits and achieve the political impact of human survival. The mobile Internet age is the only way of the development of human society in the evolution of the media. Under the helping role in integrating the media network, the human beings have arrived at a new height and achieved intercultural barrier-free communication.

III. THE SYSTEM COMPOSITION OF HUMAN CROSS-CULTURAL COMMUNICATION IN THE MOBILE INTERNET ERA

The mobile Internet era has made the earth a real-sense global village. People can access any of the world's network equipment only through the portable device they carry. The machine-aided translation gradually replaces human translating, while the methods enjoyed by the audience are provided to disseminate translated information. It shortens the human translation time and alleviates the obstacles of intercultural communication in variety of presenting-mode. More important is that the mobile Internet era uses technology to turn human body into a medium. From then on, the media is not only the extension of human beings, but also the human body is a medium. The mobile Internet era has broken the state separating humans from the media for a time. The intercultural communication barriers are caused by separation between human and media. The "Book of Changes - Copulative says that "There is natural law, a human law and earth law. They are divided in two parts." The human nature itself is a medium, and a media for heaven and earth. It is a medium communication the heaven and the earth within the heaven, earth and human. The mobile Internet era is mainly composed of hardware system and application system.

A. The Hardware System in the Mobile Internet Era

The hardware system of the mobile Internet era consists of a four-network system and intelligent terminal. Its application system is mainly composed of cloud large data and intelligent software. The hardware system of the mobile Internet era is composed of four -network system and intelligent terminals. The five network system includes mobile Internet, Internet of things, broadcast television network as well as vehicle-mounted intelligent network.

As the development of the fixed Internet, the mobile Internet, through mobile devices or other smart portable devices (including PDA, laptop, mobile phone, etc.) accesses to the Internet by using the world wide web or through wireless access protocols. Users are not subject to fixed Internet restrictions to have access to network information at any time in the area of mobile Internet. According to the "The 34th China Internet Development Statistics Report", "As of June, 2014, the number of mobile Internet users in China rose to 83.4%, amounting to 527 million people in scale and increased by 26.99 million people, compared with

that at the end of 2013." It is thus clear that in using the mobile internet, the number of people getting on the internet through cell phones accounts for a decisive position. Take WAP as an example, the mobile Internet access is introduced. There are two main types of getting on the internet through cell phones, the one that is connected with the Internet through IP in PHCP distribution, and the other one that is connected with the Internet through honeycombs data network and WAP network. The local area network (narrow sense internet of things) mainly includes the subject-subject connection and people-people links within the network. The subject-subject information transmission includes: perception and recognition of subjects, information transmission and feedback. The human-object information transmission includes: the perception of human and object, the subject confirmation of the identity of the user, receiving user's instruction, the content of the completed instruction and the information feedback on the successful completion of the instruction. The subject-subject connection is the base of human-subject link, which is also called the end information network of the Internet of things.

In our nation, the TV network mainly consists of wireless TV network and cable TV signal network. The birth of the wireless TV network is mainly because the service radius of the ground TV station is about 60KM. The earth synchronous satellite moves with its time same as the earth's rotation, which is still relative to the earth, as far as 35786 km away from the earth. Three synchronous satellites are able to cover the earth. The digital TV network adopts HFC fiber and coaxial cable hybrid transmission mode. This transmission mode reserves the existing TV broadcast network system and realizes the existing TV network connecting the Internet by using the two-way transmission line. The HFC network has takes on star- and tree-combined topology structure. The star-distributed network is mainly composed of optical cable, making up a trunk network to mainly transmitting optical signal. The coaxial cable network focuses on transmitting radio frequency signal, and it is distributed in a shape. The optical node connects optical cable to coaxial cable. The role of optical node is to convert main line downlink optical signal to radio frequency signal for transmission to the user through coaxial cable, then turn user uplink radio frequency signal into a light signal back to the front, thus achieving two-way communication. The future cable TV system will go towards large-scale, multi functional development, and will be blended with the internet of the mobile Internet era and become an important communication media and means of social information.

Taking vehicle as its basic information unit, the car networking, through radio frequency technology, GPS, broadband wireless communication, microwave access technology, collecting and transmitting information, combines vehicle with all kinds of networks to make up an intelligent integrated network system with such service items as vehicle safety monitoring, traffic monitoring, information collection and information transmission, network access and so on. The car networking is an important part of the mobile Internet era to ease the traffic pressure, travel difficulties, and improve the safety of vehicles driving. The car networking is of highly dynamics and network complexity.

B. The Application System of Mobile Internet Era

The application system of the mobile Internet era is divided into two types: portable and implantable. At present, the portable intelligent terminal is mostly tablet PC, smart phone, Google glasses, etc. The implantable-type system is the mainstream of the application system of the mobile Internet era. The implantable application system can be traced back to the embedded heart pacemaker of heart disease patients in the medical field. Just because of this first research in the field of medicine, there is a revolutionary change of portable technology of the mobile Internet era. Brain Gate2 is a research group organized in US by neuroscientists, engineers, computer scientists, and other research fellows. It is committed to developing technology to repair nerve disease, and communication between the injured body and the brain. This group implanted the electrode as small as aspirin into the brain to acquire a nerve signal and decode its intention so as to control the body's external device. This study can repair the congenital or acquired disability. More importantly, this system opened up a junction between the human body and the computer, became one of the important technologies of mobile Internet era and laid a foundation for "brain-computer in one whole", the symbol of the mobile Internet era. For short term power supply, researchers at Draper laboratory in Cambridge, Massachusetts, are developing biodegradable battery, which generates a power source inside the body, and then naturally melts through a wireless transmission. For long-term power supply, the body's organ activity is a very good source of electricity. Scientists in our country have developed the use of human organs activities, such as heartbeat, respiratory activity and others, to collect power. Human body sugar is also a good source of bioelectricity. Turing human body sugar into electricity is also one of the key points in solving the energy problem in the mobile Internet era.

IV. CONCLUSION

In summary, the human communication in the mobile Internet era will, in virtue of power of science and technology, realize "face-to-face" intercultural exchanges. Language and region will no longer be the limits on human intercultural communication. With science and technology, the human body ultimately has become the most convenient, environmentally- friendly intelligent medium complex. The human intercultural communication is also expected to return to the barrier free communication before the ear of "Babel".

REFERENCES

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