The changes of of computer metaphor—Reading report of From Counterculture to Cyberculture

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Abstract: In his book digital Utopia: from counterculture to cyber culture, Fred Turner puts forward that the development of computer technology and the change of computer metaphor are closely related to the development of American counterculture. From the boycott of computers in the 1960s to the praises of computers in the 1990s, The reason for this change is not only related to the development of technology, but also closely related to the change of social culture and thinking consciousness.

1. Introduction

On January 22, 1984, the advertisement for Apple Macintosh computer premiered in the Super Bowl competition. In this commercial, a female model in a white apple T-shirt rushes into the lifeless cinema, smashing the "big brother" who symbolizes the mind controller on the big screen with a hammer, arousing the expressionless, robot like crowd.

In the cultural context of the 21st century, we generally believe that computers represent innovation, freedom and individuality. As Apple's "1984" ad illustrates, the idea is that the PC MAC will break the authoritarian rule and let the people master the technology to get a better life. However, in the United States in the 1960s, computers were regarded as a technology to squeeze human nature, It represents a centralized bureaucracy.

In just a few decades, two distinct computer metaphors have emerged. For this change, some people think that the rapid development of technology has changed the computer from a giant used by the military into a small technology that ordinary people can easily use, thus bringing different meanings to computers. And the author of this book, Fred Turner, through the excavation of historical context, It provides readers with a different perspective: tracing back the reasons for the change of computer metaphor from the cultural level, and closely links the technological revolution with the development of counterculture.

2. People's attitude towards technology development

The United States in the 1960s was an era of material abundance. However, at the same time, the black civil rights movement in the United States, the escalation of the Cold War confrontation between the United States and the Soviet Union, and the further involvement of the United States in the Vietnam War, all kinds of unknown threats and dangers made people feel scared.

Under this background, people's attitude towards the development of technology has gradually begun to change. Before that, most people tended to think that technology was beneficial. However, at that time, many young Americans began to question the dominant view of technological progress. They were worried that the rapid development of technology would make people lose themselves, and they thought that they would live under the rule of big machines and technologies, Living in a new totalitarian society. In their eyes, if they continue to live in such a society, people will become a passive, aimless, subject to machines.

This worry about technological progress is especially reflected in the fear of nuclear war. For the Americans at that time, the nuclear war was still a terrible situation that could happen at any time. They are more and more alert to the power of large machines, and even once thought that the development of large machines will inevitably lead to the extinction of human society.

The dark clouds of nuclear anxiety, the threat of technological bureaucracy, and young people's worries about their own future are intertwined, making countless American young people want to escape the mainstream society and find a new, alternative and equal society. Different from the new left, these young people are the so-called new communitarians and counterculture groups. They abandoned politics, Their self-sufficiency lies in the idea of "returning to the community" and "seeking for a solution to the problem of self-sufficiency in the community" and "seeking for a solution to the problem of self-sufficiency in the community" and "building a community of self-sufficiency".

However, the new commune advocates technology. They are crazy about small tools and believe that automation and computers can help them create a better life. They believe that technology can benefit individuals. This optimistic view of technology seems to contradict their rejection of industrial society and their criticism of the bureaucratic machine during the cold war. The author believes that to understand why new communitarians are so fond of small technology, it is necessary to study the cooperative way of military research during the cold war and Stewart Brand and his The Whole Earth Catalog.

3. Origin of the change of computer metaphor

The author believes that the origin of the change of computer metaphor comes from the cooperative mechanism of "military industry" during the Second World War. Although the operation of these laboratories relies on the support of bureaucracy, it is a place with great spirit of cooperation. Scientists from different fields conduct interdisciplinary research for a common goal and construct new life networks and communication modes. From this point of view, the birth of computer has the spirit of interdisciplinary cooperation.

It is because of Stewart Brand's the Whole Earth Catalog that computers are regarded as a kind of "personal technology" owed with the color of counterculture.

In 1968, Brand published his first the Whole Earth Catalog. The Whole Earth Catalog provides new communitarians with some small technologies to encourage people to achieve self-sufficiency through technological innovation. Brand is a cultural entrepreneur with a wide range of interests. Before he founded the Whole Earth Catalog, he was constantly searching for new ways of life in various fields. From ecology to cybernetics to participating in hippie activities, Brand acted as the intermediary of knowledge and culture, frequently promoting the legitimate exchange between various groups.

The question is, how did Brand bridge the seemingly unrelated realms of counterculture and technology? How to make the counterculture groups realize that personal computers can be an important way to realize their ideals?

The answer is in the magazine the Whole Earth Catalog.

The Whole Earth Catalog has seven sections: understanding global systems, housing and land use, industry and crafts, communications, communities, nomadism, and learning. Brand's setting of these seven plates is based on his understanding of "system theory" and McLuhan's "global village". Brand believes that the earth itself is a relatively independent large system, and human beings are a whole, Therefore, we must grasp and understand it as a whole, and the Whole Earth Catalog is a complete information system.

Rather than a magazine, the Whole Earth Catalog is more like a "network forum", which provides a forum for new communitarians to understand each other, communicate and share information with technical experts, scholars and artists. Like the study of military industry during World War II, readers of the Whole Earth Catalog also realized the importance of interdisciplinary collaboration. Different social groups share their own knowledge and exchange views here.

Contrary to the campus based pessimism of technology in the late 1960s, the Whole Earth Catalog is optimistic about the revolution that technology will bring. The tools provided by the Whole Earth Catalog are usually small, personal and can be "created by yourself". The Whole Earth Catalog highlights the importance of small technologies to individuals, Through these tools, readers can create their own world and master their own life. This optimism about technology makes people believe that it is possible to build another future through technology, and it also brings many new ways to think about the possibilities of computers.

The founding of the Whole Earth Catalog is a landmark event, which realizes the first integration of the commune ideal of counterculture and the development of technology field. After the failure of the commune movement, computers and computer networks have become a new way to realize the ideal of counterculture.

4. The social intention

A common misunderstanding is that when a certain technology appears, people will naturally use this technology to create a certain social value. However, the original research goal of technology is not linearly determined by social adoption. Raymond Williams pointed out that "social intention" plays an important role in the development of technology. That is to say, the development of technology does not have a given track, but people's social expectations and imagination make them develop and apply certain technology to meet their own imagination.

Take the computer as an example, historians believe that the 1960s witnessed the transformation of computer equipment. As early as 1972, many technical features of personal computers were ready. Although the computer had such a function at that time, it did not lead to the trend of "personalization" attached to the computer. It is Brand and his colleagues in the "global" network who have truly endowed computers with the cultural connotation of "personalization, freedom and connection". Through continuous efforts, they have closely linked technological innovation with social innovation and made people realize that computers can be used as a tool for personal liberation.

From the new commune to the global electronic link (well), from the returned commune to the "virtual community" built by the computer, we can clearly see the influence of the social concept of the new communitarians on the early network culture. Well is committed to building a forum where every user can express himself. Users can search the discussion groups they are interested in and join the conversation, You can also create a theme and invite others to discuss it. Well inherited the new communitarians' counterculture spirit and technology-centered management mode. There was no hierarchical relationship between these groups, and there was no opposition between center and edge. The operation mode of well makes people feel strongly the counterculture temperament of computer network.

In 1993, under the influence of the "global" series, Wired, a magazine, clearly shows that

computers will bring about a profound social change. It gives computers the mission to change human consciousness and society.

5. Conclusions

Fred Turner looked at the development and change of computer technology from such a novel perspective as culture. In the 1960s, the computer technology became the anti mainstream of computer technology. It has changed the cultural meaning symbolized by the computer in the society and found a new way of life through the computer.

The design of any new technology and its use in society are not only determined by the development of technology itself. Specific culture and ideology have an important impact on the application of technology. Technology can be seen as a cultural form containing a variety of social relations, and this is the biggest inspiration that this book brings to me.

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