

SUGGESTIONS FOR DIGITAL CULTURE AND THE AGE OF CONVERGENT LIBRARY

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1. Digital culture is an ubiquitous culture.

Thomas L. Friedman, a columnist of New York Times, called the current time, in which 'globalization of individuals' where individual communications have been made possible in anywhere and anytime in the globe thanks to the development of internet and information technology since 2002 is realized, as 'the era of globalization 3.0 version' in his book *The World Is Flat*(2005). In addition, a slogan of UPS, a leading global distribution company, is 'Your World Synchronized'.

As such today's world is rapidly changing into an ubiquitous culture that manifests temporal simultaneity and spatial omnipresence. The person who first used the term, ubiquitous, was Mark Weiser, a head of Xerox Palo Alto Research Institute. In 1998 he foresaw that the future would be marked by the third information revolution led by ubiquitous computing. It took only two or three years for his prophecy to be realized. With the introduction of multi-chips, as satellites and various digital devices were connected, the ubiquitous system began to take shape. From that on, the digital network encompassing e-mail, mobile phone, PDA, MP3, DMB-phone, digital banking system, digital library, digital hospital, digital market, digital university has been established to stay the globe connected.

Digital culture is a type of cultural revolution. All cultures started transforming into digital. People start to compete to first move to new digital culture. Great migration to digital culture has begun. For it would be harder and harder to live in a world if you are not a digital immigrant. Those who were born and grown in analogue system would be isolated from new culture if they do not become digital immigrants. It would be more so in future world to be led by digital natives.

Then, how today's digital network transform the world?

First, digital turns the world into an absolute structurelessness. There is no center. Rather the center is in everywhere. Thus, there could be no power structure. It is because digital is not a territorial structure but a boundless network that can be connected everywhere.

Second, digital turns the world into a tele-community: for internet is creating new communities. The place is a new world where digital intelligents gather

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together. While all roads led to Rome in the time of Rome, all roads lead to internet in the time of digital.

Third, to live in a digital community, what is most needed is net instruments and net technology: for internet determines digital citizenship. However, what is needed for digital intelligents is not the cognition of it but a mere manipulation.

2. Disappearance of distance and convergent reality

In the digital network, there is no perspective. Because distance was evaporated. Digital revolution lies in the death of distance. A digital earth through internet lacks not only the center but also distance. For the place is an ubiquitous agora. Unlike off-line where difference in distances is inevitable, the path to the agora is all connected via on-line.

In a digital community, any digital intelligents set motto of their lives not as cradle to grave linked through off-line, but as actual reality to virtual reality linked through on-line. As the digital world is changing into 'an augmented reality' that continues to expand itself beyond anyone's expectation in an overnight. In other words, due to a virtual world of broad band that converges narrow bands, or real territories, or the disappearance of distance, the world is transforming into a living space without borders. The convergence of various technologies are realizing 'convergent reality' in which actual reality and virtual reality are combined. To take an example, see the convergence of various communication and media technologies. Digital intelligents neglect a reading newspaper that can be only viewed in the reality and ask for a watching newspaper in the augmented reality. Spending most of their time in the augmented reality, they are willing to read mobile papers only. Because the daily lives of digital intelligents who have already metamorphosed into augmented bodies have become an augmented life-style, converging the reality and virtual living.

Perhaps, the real space in the future would be, at best, a bedroom to turn off the digital network and go to bed or a lounge to unwind stress obtained from a cyber space. If our daily lives were controlled by 'Cyber Now' (a device such as neurochip or special contact lens to freely come and go between actual and virtual realities) proposed by Jerome Glenn, chairman of the Future Forum of the UN, our life-style will completely turn into either convergent type or hybrid type.

3. Future library is a convergent library.

In convergent reality, how should libraries change themselves? As mentioned before, industry and culture, digital immigrants and digital intelligents, or in other words, the social or individual life-style of 'augmented bodies' have long been turned into a convergent type. That is why there is no doubt that library should be changed into a convergent type. In particular, an university library, a gathering place for digital immigrants and digital natives should hasten to change into convergent or hybrid library.

The evolution form of a future library is non-centered and radiated augment. Because all our life-styles evolve from integral to fractal forms and from analog to digital forms. In an augmented reality, a library should also be an augmented library for augmented bodies. It should be an interface library that freely communicate between the reality and virtual reality.

If so, how should future libraries change for augmented bodies? In a convergent reality, our daily lives should be very different from what is now owing to the development of ultra-sensitive sensor or actuator such as SQUID (Superconducting Quantum Interference Device) or in other words, amazing evolution of bio recognition interface between people and machine. Thus, a convergent library for augmented bodies:

First, the forms and functions of books should be changed.

A future library should prepare for the evolution of books. It should prepare for the end of the era of reading books and the beginning of watching or listening books, or even of neuro-scanning books.

Second, the structure and functions of a library should be changed.

In the future, as the use of bio-recognition system using face, fingerprint, iris, retina, voice, bodily smell, and even DNA will rapidly spread, the structure and functions of a library should vary accordingly.

It is possible that a library would exist as a platform to enter the reality or virtual reality or play a role of a range of sensor booths.

Third, librarianship should be changed.

A future library would not require the existence and title of librarian. In a future library, a digital librarian would be replaced with a digital controller or interface engineer who can handle bio-recognition system.

Fourth, it is inevitable to change the way to use and lend books.

Because the network of digital library will turn into a new convergent network. Therefore, A future library should prepare for the emergence of platform or various sensor booths-utilized methods.

Fifth, it is necessary to prepare for the demolition of an immobile library in the reality.

Stanislaw Lem predicts that by 2050 so-called central fantasy world (Zentrale Phantomatik) will be realized. If so, people can call out any data they want through neuro-chips directly connected to our central nerves without using a library. Also because that it is possible to save new data in the previously stored memories. All augmented bodies are exactly augmented libraries.