Dialectical Materialism in Internet Era

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Abstract

Deepening the understanding of the Internet is a prerequisite for the development and governance of the Internet. Machine Thoughts, mentioned in Chapter XIII of Marx's "Das Kapital" and related manuscripts have crucial value of guidance in terms of better understanding of the Internet. Via the viewpoint and approaches of dialectical materialism, the positioning of the Internet is an extension of the machine, its property is the artery of Society, and the challenges encountered are universal and complicated. Henceforth the governance of the Internet should apply a systematic approach.

Key words: The internet; Dialectical materialism; Governance

INTRODUCTION

February 27, 2014, The Central Leading Group for Internet Security and Informatization was set up as the supreme body of China's Internet, headed by Xi Jinping, General Secretary of the Chinese Communist Party. From November 19 to 21 2014, the first World Internet Conference sponsored by Chinese government was held in Wuzhen, Zhejiang Province, China, the topic of the conference was: "interconnection, sharing cohabitation", more than 1,000 senior people from nearly 100 countries

and regions attended the conference. During China's "two sessions" (the National People's Congress and the Chinese Political Consultative Conference)in March 2015, Prime Minister Li Keqiang reported on the work of the government, he proposed the development of the "Internet +" action plan for the first time . Whether it is the formulation strategy on national Internet, or the propositions of the co-governance on international Internet governance, or the development and implementation of the "Internet +" action plan to promote domestic economic development, all those necessitates a base of profound understanding of the Internet, it is the same as the Chinese saying "Only strong roots can make the leaves prosperous. "Consequently, conscious application of the Marxist dialectical materialism and historical view is the key to deepening the understanding of the Internet, Regarded as the treasury of the Marxism, Machine Thoughts in Chapter XIII of "Das Kapital" and related manuscripts, have critical value to further clarify the positioning of the Internet, the nature, the challenges and measures of the governance and other issues.

1. POSITIONING OF THE INTERNET: THE EXTENSION OF MACHINE

To investigate the status and role of the Internet in production, it is necessary to compare the Internet with machine, which is ubiquitous, useful and accustomed by human beings. Marx insisted:

> As the starting point of Industrial Revolution, the machine, uses such an organization to replace a worker who uses the tools, this organization works together with numerous same tools or one tool of the same species, driven by a single force, regardless of the form of the force. Herein the machines come into being, but it is just the simple components in the production of machine.

The relations of the Internet and machine are manifested in the following four aspects.

1.1 Material Base

The Internet was initially linked by two computers with the purpose of directly "exchange." Up to now, the Internet can only exist and work through the machines like computer terminals, servers, routers and others alike. With the development of information technology, the devices that connect the Internet are becoming smarter and smaller, smart phones become one of the main terminals to connect with the Internet, people can be online on their smart phones for 24 hours. At the same time, a large number of originally isolated household appliances are connected to the Internet to form "Internet of Things", such as the networking of televisions, sockets, air purifiers, cameras, cars, etc.. However, in any case, the Internet cannot work without a machine with the function of message sending, receiving and processing. Therefore, the Internet is an extension of the machine concerning material base.

1.2 Function

Marx pointed out that the machine is "the replacement of a worker using only one tool", suggesting that the role of the machine is to replace human labor. The Internet is not only a thorough replacement in the work of information transmission, which was originally completed by mere human or more manpower, but also a great augment of the function of the machine by taking advantage of the convenience, fast speed and large capacity on information transmission. Now the main function of personal computers, smart phones, tablets is to connect with the Internet, once the network is disconnected, people suddenly feel these devices dull. In the workplace like online retailing, once the Internet is broken down, a lot of work cannot be carried on, the machines have to shut down. More and more machines are designed and produced for the function of connecting with the Internet, without the Internet no machines like those will be produced. Without the Internet, it is beyond our imagination that a person would be intoxicated and seize every minute to stare at the palm-point phone. In short, the Internet is an extension of the machine when the function is concerned.

1.3 The Level of Development

From tool to machine, form non-networked machines to network machines, there is a reflection of the incessant development of human society. In Marx's era, machine could work with a variety of simple tools, or increased the power and speed of the movement of simple tools with an aim of improving productivity. The Internet is a channel for the electronic information stored in the machine to "exchange", so that the machine can make use of electronic information exchange to complement each other, thereby reducing the intermediary role of human beings in coordinating multiple machines to work together. This remarkably increases the level of automation of the machine. Operating directly from simple tools to machine-operation on those simple tools, and then come to the stage of working directly and coordinately through the Internet connection among machines, Internet plays an important role in the development of tools in human history, which reflects the development and progress of the society. Therefore, the Internet is an extension of the machine concerning the level of development.

1.4 The Globalization of Machine System

Marx observed the development of machine in factories, and he claimed that "Only the subject of labor sequentially go through a series of different process in connecting with each other, and when these processes are completed by a series of different but complementary tools and machines, the individual machines will be replaced by the real machine system. "It is thus cleat that Marx understands the machine system in terms of the function and state of the machine and their interrelationships, it is observed from the completion of certain work, that machine system is" a big machine "composed of multiple machines to complement each other, in other words, it is an organic combination of spatial location and working hours between machines—the systematization of machines. Obviously, the existing machine system is severely restricted by natural space and social environment, but the Internet enables the exchange of information between machine and operators becomes very easy. This will gradually break the constraints of time and space between machines, contributing to the link between the machines and its designers and producers, leading to a more direct connection beyond the workshop, the enterprise, and national boundaries, so that a global, systematic, automatic machine system will be formed.

In a word, the Internet is an extension of the machine and it connects machines to form a global machine system. Thus, greater production capacity, more efficient resource configuration will be generated, which is the pursuit of "Industry 4.0" and the magic of "Internet +".

2. THE PROPERTY OF THE INTERNET: ARTERY OF THE SOCIETY

The impact of the Internet on social relations starts from the easiest place, such as the mere transmission of information, and then gradually develops into traditional service areas like advertising, marketing, manufacturing.

2.1 The Internet Has Become a Main Social Connection

Commercializing development of the Internet emerges form Internet news, e-bulletins, e-mail, search engines and instant messaging services, for example, in China, the Internet news services and e-mail services are provided by Sina, Sohu, and Netease, the Internet information search engine is provided by Baidu, the instant messaging

service is provided by Tencent QQ. With the popularity of the Internet, especially with smart phones growing into an increasingly common way for people to access to the Internet, the emergence of the micro blogs, wechats and other new contact and communication media, and from the simple text message to pictures, sounds, videos and other complex information. In this process, the Internet has developed from a simple one-way communication link into a network of community, resulting in a real-life community, as a platform, which serves the purpose of accommodating more people to interact at any time. This greatly increases the amount of time people uses the Internet, and affects the time people communicate face-to-face in reality. The Internet community has made a lot of people addictive. Internet community makes people become abstract symbols of the network code, text, images, audio and video, to a certain extent affect peoples rather than the height, weight, appearance, job and income in real life, so people are more fully manifested in the spiritual dimension of socialization. "carry phones anywhere anytime" "24-hour online", "bur oneself in phones" and other catch words, perfectly indicate that the Internet has become the main way people associate with each other.

2.2 The Internet Has Become the Main Connection in Production

Different from the incremental development of the Internet in the field of communication, the integration of manufacturing and traditional service industry with the Internet requires a great adjustment. Previously, the machine was unable to connect with the Internet, in the future, it will be endowed with the function of reading and sending information from the Internet. In realizing the intelligent production, which is based on the connection of the Internet and big data. Unified planning and heavy investment are needed, the "Internet +" action plan is also needed for the country to lead and promote. Only when the Internet gains popularity in the manufacturing sector, and actually connects the machines, which are limited to individual plants or regions, finally forming a powerful machine system, the power of the Internet will be exerted in production. Marx thought: "With the development of large-scale industry, the creation of wealth less depends on the time and the amount of labor that has been spent, but more depends on the substance involved in the labor time." The Internet shows great advantages in promoting the intelligentization of the production, contributing to replacement of the Internet in the process of production, whereby people were the director and controller of the machine. Therefore, the Internet will become the main contact in the process of production.

2.3 The Internet Has Increasingly Become the Artery of Human Society

In Chinese medicine, artery refers to the body's blood running pathway, according to the theory of Chinese medicine, if the blood circulation is blocked, the body will be in a serious problem and even death is possible. For a society, various connections in the process of production and life in are similar to artery of human body. Marxist dialectical materialism holds the view that the world is universally connected and eternally developed. Human society is a social connection of economics, politics, culture, family and so on, as well as a natural connection of gravitation, season, weather, etc.. The world is also a systemic process based on people's immediate needs and long-term development, which are performed at a variety of different levels. Characterized with higher frequency, faster speed and larger capacity, a machine connection has been the product of the Internet. It is the development of the Internet that will enable individuals to be online at any time, the social ties will become increasingly close, systematic degree will increase gradually. From the existing development of science and technology, before a breakthrough was made in the previous studies and applications of the contact of quantum level and the direct connection of the nervous system, the Internet will be the most powerful social systematic carrier. Internet will be in the form of "all things on the Internet" to strengthen the new social ties or to represent the original social ties, which then become the artery of the social system.

In short, as an extension of the machine and the artery of the society, the Internet will not only coordinates the machine system with other material production facilities, but also automatically transform the nature in a more systematic way, and finally it will make the it a norm for machine system to automatically create wealth, and that will make people's social contact increasingly be reflected at the level of spiritual needs. This is bound to profoundly change the condition of social production and life.

3. THE CHALLENGES FORM THE INTERNET: UNIVERSAL AND COMPLICATED

As an extension of the machine and the artery of the society, the Internet has caused plenty of problems while promoting the development of productivity and strengthening social ties, and those problems are often not limited into a particular field, but become particularly complicated for being intertwined with those existing problems.

3.1 Conflicts in Labor Relationships

Marx pointed out: "Machine forces all the members of working families into the labor market, assigned the value of the male labor of to his family members." In the field of Internet, the rapid development of Facebook and Alibaba and other Internet companies indicate the assimilation and control of capital on technological capability , meanwhile, the application of the big data on the Internet will make the capital more powerful and more invisible. The inevitable consequence of the increased strength of the

capital is to accelerate the exploitation of ordinary workers —the growth rate of wealth for laborers is far slower than that of the asset owners. The strategy is offered by Maintain capital-led national system for the purpose of social stability and continuous production, this strategy drives workers to become increasingly dependent on the social security system rather than individual labor income. This is not only the reflection of more closely connected community, a signifier of the individuals who are getting increasingly dependent on the state and society, but more fundamentally reflects the further escalation of the way that capital works, Which induces the amelioration of the ways to resolve those problems.

3.2 Family Relations

The emergence of the Internet has greatly expanded the time and place of work, except for saving transportation costs, working at home, in fact, invades the time and space of family life. In the course of the universality of Internet application, it is also very easy to extend work after work, so the time for family will be taken away. In China, the Internet further involves the women in the work of e-commerce, the cheaper online shopping is at the cost of the opportunities involved in e-commerce and lower income. In short, the universal adoption of the Internet community further lowers the level of real wages, and enables parents to have no time to attend to the children's lives , learning and discipline, "The Internet has become the enemy in competition for the time of parents." Obviously, family time is further occupied by the work, and more time family members use on the Internet will lead them to be more emotionally independent. These changes occurred in family relationships force the legal system and morality to be adjusted accordingly.

3.3 Cultural and Educational Innovation

In the era of the Internet, without any discussion or identification, a variety of cultural information comes to the fore overwhelmingly, this poses tremendous challenges for literary criticism, cultural guide, cultural conservation. With respect to all kinds of socially harmful extremist religious ideology, ultra-nationalist ideology, unenlightened culture, and vulgar activities, without the necessary filtering, they are directly presented on the Internet, all those seriously affect people's mental health and social stability. Popularity of the Internet makes infinite cyberspace be accumulated into a wealth of educational resources, for students and other users, it is a matter of learning it or not, and whether the learning method is appropriate. At present, the degree of the integration of educational resources on the Internet is still relatively poor, it is very inconvenient to use. Concerning the Education of teenagers, information on the Internet varies greatly, which includes obscenity, pornography, exposure, superstition, violence, all those will result in serious negative impact, but their parents do not have

enough time to spend with them or do not have sufficient capacity to guide the healthy use of the Internet . There is an urgent need for the state and society to take practical measures to purify the Internet environment, in the case of keeping the Internet open and free.

3.4 Social Security and Stability

In the era of the Internet, breaking news quickly spread throughout every corner of the world, hot topics can instantly reach each person, a gentle click of the fingers could cause serious social problems, warm solidarity has the same speed as that of rumors and verbal abuse on the Internet. Within the law, every citizen has the right to tell what the world needs to be and to talk in a lofty strain. In addition, authoritative information of the government needs to compete for faster speed with the information tools in the hands of the public, the convenience of information transmission not only leads people's mind to be more active, but also more likely to be encouraged and organized. The Internet changes the society into a global village, it is inevitable to know and to be known, but the access to personal privacy, and the secrets of a company and the abuse of them are substantially different from each other. These problems will be more prone to trigger the issues on social security and stability.

3.5 Participation in International Internet Governance

The Internet is not only the artery of the social system, but also the life-gate of the state and society. Internet is an extension of the machine, whoever controls or destructs the machine and the code ran by the machine which relies on the Internet, he can control or destroy the Internet, the Internet is more fragile than expected. As China's machinery and procedures which support Internet technology as a whole is still in a catch-up position, the nation and the society are facing serious external pressure from the security of the Internet. Currently, international Internet governance system, the critical infrastructure and governance powers are all in the domination of a few countries, China's endeavor to ally with other countries for a fair and equal international Internet governance, still faces enormous difficulties.

4. THE GOVERNANCE OF THE INTERNET: A SYSTEMATIC APPROACH

The establishment of Central Leading Group for Internet Security and Informatization signs a formation of the development strategy at the national level of leadership system, but the implementation of network information security and information strategy remains a long way to go. Concerning the concept and approaches of governance, a systematic theory needs to be applied, integration from strategy to tactics, from concept to concrete measures should be formed.

4.1 The Development and Application of the Internet in Production and Adjustment of Labor Relations

In the applications in production, we should accelerate the development and implementation of the "Internet +" Action Plan to promote the transformation and upgrading of traditional industries, we should allocate the resources efficiently and protect the natural environment in a larger space and time. Coordination of labor relations is the foundation of national security and social stability. As a socialist country, China's ruling party had already clearly recognized this, it always combines the economic development with the improvement of people's livelihood and emphasizes people's common benefit and increase of "happiness".

4.2 Active Guidance of Family Relations

Guidance on family relationships, blind advocacy of traditional morality can not effectively resolve the adverse impact that the Internet has brought upon us, what we need to do are in the following parts: Adapt to the impact of the Internet on the internal and external relations of the family, follow the tendency of more independence and freedom of the individual, directly face the gradual adjustment of the function of financial security, emotional comfort, population produce, guide the family moral and legal relations under conditions of social information.

4.3 Active Guidance on the Cultural and Educational Innovation Relations

In terms of the innovation of cultural and educational relations, we need to adapt to the Internet era of cultural propaganda to decentralize the reality, adjust the way leaded by the mainstream culture and ideology, it will combine the cultural propaganda and social-spontaneous, market-driven cultural development together. We need to take the initiative to adapt to the new environment of Internet education, make full use of the Internet to promote school education and the formation of self-learning system, accelerating the reform in university, secondary schools, clean network environment to help young people surf the Internet in a healthy way.

4.4 Adjusting Maintenance Mechanism of Social Security and Stability

In order to build social security and stability, the party and government organizations, enterprises and institutions, social organizations and individual citizens should work together to quickly and rationally deal with those issues ,which occur in citizens' political participation in the Internet, banning illegal information, network management and other issues of autonomy of public affairs, all is intended for social security and stability. At the same time the nation and the state should update the concept of privacy, emphasize that large-scale possession, and the use of personal information and company's secret

must be justified, meanwhile, basic telecommunications service providers, network communications platforms shall bear the obligation of cutting off rubbish call and blocking spam.

4.5 Active ParticipationiIn International Internet Governance

In foreign affairs, we continue to advocate and promote international networks with the theme of "interconnection, sharing cohabitation", which takes both legal and practical initiative. at the same time. We should also focus on the key equipment and core programs of technological development from the height of National Security Strategy to get rid of other people's control as soon as possible.

In short, formed by the Internet, we are facing a civil society which is flat, dynamic and of diverse interests, the particular way of governance needs to be based on the self-development and self-management of market and society, we should make the ideology play an active role and let the government govern, and take advantage of the rule of law thinking and timely introduce legal thinking systematic policy to safeguard and regulate Internet governance.

CONCLUSION

The impact of the Internet in today's society is similar to the initial impact of the machine on the community in the Industrial Revolution. Internet is an extension of the machine, it enhances the function of the machine, improve production efficiency the machine, which will ultimately confine the system within a small range of machines connected to a global system. Regarded as a social artery the Internet has greatly increased the people's social connections, and increasingly brought exchanges beyond reality and into the spiritual dimension. At the same time, the Internet is also a challenge to the same extent in their production applications, labor relations, family relations, and social security and stability, which needs to be governed by the state and society in a systematic approach.

REFERENCES

Marx and Engels Collected Works (Vol.5). (2009, p.432, 436, 196, 454). Beijing, China: People's Publishing Press.

Xinhua News Agency. (2014, February 28). The establishment of the central leading group for internet security and informatization. *China Daily Overseas Edition.*

Xinhua News Agency. (2015, February 28). Scientific planning, highlight point make people benefit form the reform. *China Daily,* p.01.

Xu, L. (2014, November 15). The first world internet conference, welcome to Wuzhen. *China Daily Overseas Edition,* p.05.