# An Exploration of the New Form of "Virtual Community" under the Background of Digital Capitalism

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**Abstract:** *Digital capitalism has reconstructed production relations through data monopoly, algorithmic hegemony and labor concealment, giving rise to three alienated forms: "virtual digital community", "virtual social community" and "virtual cognitive community". These new forms continue the illusory nature of "universal appearance concealing the dominance of special interests", making technology a tool for capital exploitation to a certain extent. The path to transcendence lies in reconstructing digital production relations: breaking data monopoly to promote the public ownership of factors, regulating algorithmic hegemony to establish a democratic governance system, and ultimately relying on the advantages of the socialist system - eradicating the basis of exploitation with public ownership of the means of production, reshaping technological ethics with "people's subjectivity", and realizing the dialectical unity of the individual and the community. Socialism with Chinese characteristics transforms data resources into public products through institutional design, enables digital technology to serve the all-round development of people, and provides a practical paradigm for building a "community of free people".*

**Keywords:** Virtual Community; Digital Capitalism; Marx's Community Thought.

## 1. THEORETICAL CONNECTION BETWEEN MARX'S "VIRTUAL COMMUNITY" THOUGHT AND DIGITAL CAPITALISM

### 1.1 The Core Meaning of Marx's "Illusory Community" Thought

Marx's idea of an illusory community is an important part of the theory of historical materialism, and can be understood from two dimensions: narrow and broad. In a narrow sense, the idea of an illusory community refers to the critical theory of the bourgeois state constructed by Marx in works such as The German Ideology. Marx believed that the bourgeois state was a typical illusory community. "It is precisely because of this contradiction between private interests and common interests that the common interest takes the form of the state, which is independent of the actual individual interests and the interests of the whole, and at the same time takes the form of an illusory community." [1] The bourgeois state maintains capitalist private ownership and the ruling position of the bourgeoisie by promoting universal interests and universal values. In a broad sense, an illusory community can refer to those social communities that are manipulated by specific internal groups and deviate from the interests of other members. When the name of the community becomes a tool for realizing special interests, or even backfires on the development demands of other members, the "common interests" it claims become a false appearance [2]. Based on the above, we can get a glimpse of the core essence of the idea of "illusory community", that is, a group of individuals who dominate a community maintain their own rule and obtain special interests by creating the illusion of "common interests". The dominance of special interests under the appearance of universality is the fundamental representation of its "illusion".

### 1.2 Digital Capitalism and Its Characteristics

The concept of digital capitalism was first proposed by American scholar Dan Schiller in 1999. He believed that today's capitalism has completed a phased transformation. "Information networks have penetrated into all aspects of capitalist economic culture in an unprecedented way and scale, becoming an indispensable tool and driving force for the development of capitalism." [3] In other words, digital capitalism is the latest stage of capitalism, a universally digitalized production relationship dominated by Internet information technology. Digital capitalism is mainly composed of three core parts: digital infrastructure, data production factors, and platform economy. The technical infrastructure represented by the Internet, big data, and artificial intelligence provides the underlying operating framework for the digital economy, which is the operating carrier and productivity condition of digital capitalism. Data, as the core production factor, is collected, analyzed, and capitalized by data monopoly enterprises,

becoming the core resource for them to achieve capital growth. The platform economy relies on digital platforms to build a new business model and dominate resource allocation and market rule-making. Generally speaking, digital capitalism has three main characteristics. The first is data capitalization. Enterprises collect user behavior data and information to serve capital appreciation. Data becomes a core production factor and also a tool for exploitation. Second, algorithmic hegemony. Algorithms use "personalized services" as a disguise to deeply manipulate user behavior and achieve a hidden monopoly on traffic distribution and rule-making. Third, labor is hidden. Users' digital labor, such as social interaction and content creation, is occupied without compensation and becomes an important source of capital growth. At the same time, the extensiveness of labor in space and time has been improved. The boundaries between working days and non-working days are increasingly blurred, and working hours are hidden. The popularization of new work systems such as "working from home" and "flexible working" has also impacted the old labor model with fixed workplaces. This has in disguise extended working hours, making digital labor present the characteristics of life production [4].

### 1.3 Theoretical Connection between the Idea of "Virtual Community" and Digital Capitalism

In the era of digital capitalism, the core of Marx's idea of virtual community - "the dominance of special interests under the appearance of universality" - has achieved contemporary form through the empowerment of digital technology, and the two have formed a theoretical resonance under the framework of historical materialism. The digital community constructed by the bourgeois state and the data monopoly enterprises has similar illusions: the latter has created a digital community under the banner of "user empowerment" and "information sharing", but in fact, it has implicitly deprived the ownership of data, the core production factor, through user agreements, and packaged the goal of capital proliferation as universal welfare, which is similar to the ideological logic of the bourgeois state to cover up class exploitation with "freedom and equality". Therefore, in essence, the "virtual community" under the background of digital capitalism is a combination of capital logic and technological rationality, and has achieved new forms such as "virtual digital community", "virtual social community" and "virtual cognitive community". These real changes have profoundly affected everyone in the community and their production and lifestyle.

## 2. MANIFESTATIONS OF "VIRTUAL COMMUNITIES" IN DIGITAL CAPITALISM

### 2.1 The "Illusory Digital Community" Constructed by Data Monopolies

At a time when digital technology has deeply penetrated every aspect of social life, data monopoly companies have built a huge community network based on the platform economy, which objectively provides users with certain convenient services, but also implies the deep logic of capital accumulation and the crisis of individual alienation. The illusion of this virtual digital community is concentrated in three aspects: capital accumulation in the name of personalized experience, the contradiction between information privacy commitment and infringement risk, and the restriction of individual freedom by the platform.

First, capital accumulation in the name of personalized experience. Data monopoly companies often incorporate users into their carefully designed community ecology on the grounds of improving user experience, and the core driving force behind this is actually the need for capital growth. By building free and multifunctional service platforms, such as search engines, online shopping platforms, social media, etc., a large number of users are attracted to participate in the interaction. While enjoying personalized services, users unconsciously contribute a large amount of multi-dimensional data such as personal consumption needs, social relationships, and identity information. These data have become the core production factors for companies to make profits. For example, Amazon, the world's largest e-commerce monopoly, provides users with personalized product push services through an intelligent recommendation system. On the surface, this is to optimize the shopping experience, but in fact it uses the data of users' browsing, purchasing and other behaviors, analyzes consumption trends through algorithms, accurately locates target customers, and then achieves efficient sales and profit growth of products.

Second, there is the contradiction between information privacy commitment and actual infringement. When attracting users, data monopoly companies often make promises to protect user privacy information and emphasize data security. However, in the actual operation of the company, there are cases where users' data privacy is violated in order to maximize profits. On the one hand, companies use "user agreements" and other forms as a prerequisite for users to enjoy platform services, requiring them to agree to data sharing and usage terms. Most users often accept the terms without fully reading them because the terms are complex and difficult to understand.

For example, Facebook once stipulated in its user agreement that it has the right to use photos, videos and other content uploaded by users for commercial purposes. On the other hand, data leaks occur frequently. In 2014, Yahoo suffered a large-scale data leak, and the information of at least 500 million users was stolen, including user names, email addresses, phone numbers, dates of birth and some login passwords. Three months later, Yahoo again claimed that unauthorized third parties had stolen the personal information of more than 1 billion users in 2013 [5]. The contradiction between data privacy commitment and actual infringement has caused a crack in the trust foundation of the "digital community" built by companies, casting a false color on the sense of security and belonging of users in it.

The third is the restriction of individual freedom by the platform. Data monopoly companies implicitly constrain individuals in the data community by formulating various platform rules. On the surface, this is to maintain the order and general interests of the data community. In fact, they hold the right to formulate and interpret the rules by virtue of their technological and capital advantages. Platform rules will also affect users' free choices in economic activities. Taking the online car-hailing platform as an example, the platform sets prices and allocates orders through algorithms, which compresses the bargaining space between drivers and passengers. Both parties are in a passive position in the transaction process, and individuals lose a certain degree of independent decision-making power in the community.

## 2.2 The "Virtual Social Community" Created by Social Media

With the rapid development of digital media technology, social media has built a huge social network, allowing people to communicate face to face even if they are thousands of miles apart, at countless network endpoints. However, this social community established by breaking through spatial limitations is also illusory in the context of digital capitalism.

This illusion is first reflected in the establishment and maintenance of false social relationships. Nowadays, on social media platforms, many people establish and maintain social relationships by carefully crafting "personalities". The "finely decorated" circle of friends, the profound insights in Weibo blogs, and the eye-catching images in Douyin are mostly not real self-presentations, but beautified performances. In order to gain likes and recognition from other individuals, people in a certain "circle" constantly shape an illusory social image that suits the audience's preferences. This social interaction is based on superficial symbolic exchanges rather than real emotional and ideological exchanges. At the same time, Internet companies that build social platforms are also actively promoting the establishment of such relationships and social atmospheres, and making profits from them. Social relationships in social media are alienated by individuals' pursuit of social capital. People are not concerned about the other person's real individual, but the symbolic image they display. The establishment and maintenance of relationships lack a deep emotional foundation and real interpersonal connections.

Secondly, the virtual social community follows the principle of traffic supremacy. Just as capital is the dominant force in capitalist countries, the endless pursuit of traffic has also led to a distortion of the value system. In order to obtain more traffic, some media and content creators often cater to low tastes and create vulgar, curious, and gossipy content, such as clickbait and fake news. Traffic has become the primary criterion for measuring content, rather than the authenticity of the content.

## 2.3 The "Illusionary Cognitive Community" Formed by Algorithm Recommendation

Algorithmic recommendation technology has shaped the information ecology of the digital capitalist era by constructing a "virtual cognitive community". Its illusion is mainly reflected in dimensions such as the cognitive limitations of personalized recommendations and the group polarization of information filtering.

Algorithm push based on big data mining technology has been widely used. Algorithms will accurately push customized information to users based on their browsing history, interest preferences and other data, so that users are in the information circle of their interest for a long time and cannot be exposed to diverse views and different voices. Over time, individuals will be trapped in a cocoon woven by their own interests and prejudices, and their cognition will become narrow and one-sided. This narrowing of cognition is not only likely to lead to a decline in individuals' perception of the reality of a diverse society, but also to the risk of capital influencing ideology by controlling the flow of information. A true community should be built on the basis of the comprehensive development of " real individuals ", but the cognitive community constructed by algorithmic recommendation has alienated individuals into data aggregates to a certain extent.

At the same time, algorithms create "information tribes" through traffic distribution mechanisms, which may exacerbate cognitive opposition and division among social groups and trigger group polarization. The generation mechanism of this group polarization is reflected in the fact that the platform will prioritize the promotion of high-traffic content based on user interaction data. If there are extreme views in these contents, then their views will be amplified, thereby compressing the space for rational dialogue. In today's Western capitalist society, algorithms often divide users into different cognitive groups. Members within the group strive to reach a unified understanding and find it difficult to tolerate different attitudes and different cognitive tendencies. Even if a few members hold different views, they will choose to remain silent in order to avoid being excluded by the group, becoming marginalized or even vassalized [6]. For example, during the 2020 US election, Facebook algorithms pushed polarized content to users with different political positions, exacerbating social divisions. It is increasingly difficult for groups with different views to understand and reach consensus, exacerbating social atomization, thereby shifting social contradictions to maintain the ruling position of the Western bourgeoisie.

## 3. PATHS BEYOND THE "VIRTUAL COMMUNITY" OF DIGITAL CAPITALISM

Although digital capitalism has given rise to a new form of "virtual community", we must see that the innovation of digital technology has objectively injected new impetus into the development of human society, greatly improved the level of productivity, broken the traditional time and space constraints, and enabled information sharing and social collaboration to reach an unprecedented scale. Marx once pointed out that "labor productivity is constantly developing with the continuous progress of science and technology" [7]. Digital technology has confirmed this assertion and laid a material foundation for building a higher level of "real community". However, the progressiveness of technology itself cannot cover up the alienation of the community by the logic of capital. To transcend the "virtual community", it is necessary to reconstruct the relationship between technology, capital and people under the framework of historical materialism and promote the return of digital civilization to the essence of "association of free people".

### 3.1 Break the Data Monopoly and Promote the Public Ownership and Inclusive Sharing of Data Elements

As the core production factor in the digital age, the privatization and monopoly of data is the root of the "illusory digital community". Marx emphasized that the social ownership of the means of production is the premise for eliminating class antagonism. We can explore the establishment of a "data public pool" system to achieve the public welfare development of data through state-led data trust institutions or collective ownership platforms under the premise of protecting personal data sovereignty.

### 3.2 Regulating Algorithmic Hegemony and Building a Transparent and Democratic Technology Governance System

The hidden manipulation of algorithms has exacerbated cognitive divisions and social polarization, and its negative effects need to be eliminated through legal constraints and public participation. On the one hand, we should promote the algorithm filing review mechanism and require platforms to publicly disclose recommendation logic and value orientation. For example, my country's "Internet Information Service Algorithm Recommendation Management Regulations" force platforms to provide a "turn off personalized recommendations" option to protect user information autonomy; on the other hand, we should advocate "algorithm democratization" and absorb multiple subjects to participate in algorithm ethics evaluation.

### 3.3 Adhere to the Socialist System with Chinese Characteristics and Build a "Real Community" in the Digital Age

Science and technology can benefit the people by promoting economic and social development. To correctly understand and use science and technology, the first thing is to have a reasonable social system to ensure the correct use of science and technology so that science and technology can benefit mankind. As a major achievement of the sinicization of Marxism, the socialist system with Chinese characteristics provides a transcendent solution to solve the capital alienation dilemma of the "virtual community" in the digital age.

On the one hand, the people-oriented nature of the socialist system with Chinese characteristics determines the development direction of digital technology. The "real community" is a social form that eliminates alienation and realizes the free association of people. The socialist system with Chinese characteristics adheres to the development idea of "people-centered", transforming data resources from private factors monopolized by capital

to social resources serving the public interest, fundamentally breaking the digital cage created by capital with the help of algorithms, and returning technology to the right track of serving the all-round development of people.

On the other hand, the goal of common prosperity has established an ethical coordinate system for digital technology that goes beyond capital appreciation. Through institutional design, algorithms are required to take into account both personalized needs and the dissemination of diverse viewpoints, and technical rules of "anti-discrimination" and "anti-polarization" are established in the public domain to eliminate the cognitive division caused by the data gap as much as possible. This reconstruction of ethical values is essentially a transcendence of the alienation of capitalist technology, transforming data and algorithms from tools that strengthen class differentiation to media that promote cognitive equality among the people, truly benefiting the people. Therefore, only by guaranteeing technological justice with a socialist system can we transcend the limitations of capital logic and build a "real community" in the digital age with the free association of people as its essential feature.

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