Original Research Article

Digital Labor: The New Labour of Digital Capitalism

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Abstract: The development of Information and Communication Technologies (ICTs) has greatly changed the capitalist mode of production and accumulation. New technologies represented by cloud computing, big data and the Internet of Things have reconfigured various factors of production and resources. In the transition to digital capitalism, more and more digital workers have emerged. A large number of workers engaged in information production, dissemination and monitoring use digital technology as production and processing tools. (Sandoval 2015) defines digital labor as: mental workers and manual workers who take ICTs and digital technology as means of production, including producers and users.[1] She points out that capital's embrace of ICTs and digital technology has accelerated the shift of capitalism's main accumulation space from a "factory floor" to a "social factory" dominated by metropolitan office buildings.

Keywords: Digital Capitalism;New Labor

With the development of ICTs, capitalism has not changed its basic logic of self-proliferation by exploiting labor. (Scholz 2012) pointed out that in the era of digital capitalism, the exploitation of labor revolves around new information technology and network platform in a more hidden form. [2]In the age of digital capitalism, work is further sliced and diced, and the value of knowledge and skills continues and accelerates. Capital completes the "de-skilling" and flexible employment of digital labor, and realizes the undifferentiated monitoring and control of labor inside and outside the labor field through various communication tools.

1. Types of digital labor

1.1 Digital labor in manufacturing and services

Every link in the digital value chain has created a need for Labour, from assembling smartphone components in daily life to developing new operating software and applications. Digital products are not a separate "technology front end" from the "production back end". So industrial workers in manufacturing, like the assembly-line workers who make Apple's devices, are also digital workers.

The new "digital Honggou" caused by the unbalanced application of information technology among global workers (Manzerolle, 2010).[3] Large Numbers of digital workers are placed in routine assembly and service jobs rather than digital innovation and digital programming. The existence of a digital divide solidifies rather than challenges existing class structures (Rodino-Colocino, 2006).[4] This separates the concept from the execution, the idea from the production. Business owners can match wage rates more precisely to specific processes and never pay more than necessary. The degradation of labor process into the most basic repetitive operations is the best expression of "work degradation" and "deskilled" workers by capital (Braverman, 1974).[5] Besides, a study of digital Labour in manufacturing can shed light on the structural inequalities of capitalism around the world.

1.2 Digital labor in the media industry

The development of ICTs has enabled a large number of media practitioners to be actively or passively involved in the digital process. First, the development of ICTs has accelerated the commercialization of digital labor in the media industry. This process is realized by "de-skilling" and "re-skilling" in the labor process. Garcia-aviles et al. conducted observation and interview research on six digital newsrooms in Britain and Spain. They found that with the popularization of digital news operation, journalists need to produce a large number of news programs to meet the requirements of 24-hour news broadcast. In this case, many "creative" abilities, including investigative abilities, have been replaced by "operational" abilities. While this replacement led to a steady decline in the quality of news products, journalists were reduced to the status of highly computer-dependent "mouse monkeys." In this simultaneous process of de-skilling and re-skilling, not only are the boundaries between professional and technical roles blurred, but the boundaries between work and leisure, office and home, are also being dissolved. Second, there is a growing tendency for media digital Labour to become "free Labour", excluded from secure and stable Labour relations. Finally, digital labor in the media industry is increasingly unstable. Lent(2010) studied the film industry and book publishing industry in countries and regions including the United States, Malaysia and the Philippines.[6] He found that these industries generally adopted the strategy of outsourcing, which made many comic creators lose their job opportunities, and faced many difficulties for comic creators who accepted outsourcing, resulting in a "lose-lose" situation for workers. These difficulties include: animation creators do not have ownership of their own works, low remuneration, work stress and so on. In addition, these outsourced creators are forced to self-censor at all times due to government

regulations, which leaves them in an unsafe and isolated working environment for a long time.

1.3 Prosumer and Playbour

User-generated Content (UGC) on new media platforms has become an addition to the new residual value of digital capitalism. Users of new media platforms upload pictures and videos consciously, promote and translate websites for free, and even participate in crowdsourcing tasks paid or unpaid. These are used to produce new content that can be commercialized, or as a vehicle for commoditized content such as advertising. In this case, the boundary between production and consumption is no longer clear because of digital technology. Capital's control over culture and media, that is, over the ownership and products of the means of communication and production, continuously integrates the "individuality" of audience labor into the process of capital circulation and accumulation (Nixon,2014).[7] In essence, this process is the deprivation of the audience's labor surplus value. Internet users' browsing and buying habits, social circles, consumption tastes, and other demographic information form an "information map" of a person. After mastering the "information map" of users, enterprises can carry out research and development more accurately, predict and guide the market consumption more effectively, and thus bring more profits to enterprises.

Julian Kuucklich defines "Playbour" as users who create value in their leisure time through play. His research on fans of game modules shows that in addition to spending a lot of time in the game each day, they also create their own games by using various editing tools provided by game developers or developed by themselves. First, "gamers" (fans of game modules) are an important source of creativity for game companies. Unconsciously, they attract more users to the game platform, create more content, and even modify bugs in the game to optimize the user experience. Their spontaneous modification and creation of game content has become an important source of value and innovation in the game industry, and their creativity has greatly reduced the company's human cost and other expenses in research, development and marketing. Second, the "playmaker" is the unremunerated motivation. For one thing, the existing system of game companies does not include module enthusiasts in a secure and stable labor relationship, which is essentially the free possession of their labor. Secondly, as a form of "unpaid work", game module is often covered by the ideology and rhetoric of leisure and entertainment. The intellectual property rights of tri-Module-based games are firmly in the hands of game companies rather than players, and fans of game module-based games bear all the economic and legal risks that may arise from their activities. Game module fans have contributed a large amount of socially necessary labor time for capital accumulation, which has gone far beyond the scope of interests and hobbies. They are even the lifeblood of the game industry (Taylor et al., 2015).[8]But prosumers and playbours are often excluded from the protection of employment-related labor laws because they do not realize that they are "working" and creating value for capital.

2. The dilemma of digital labor

Information and communication technologies, represented by the Internet, have changed the location and form of the Labour market, shifting the place of work from factories to the Internet and to everyone's computers and mobile phones. On existing social media platforms, almost all users unconsciously produce text, pictures and videos, and sometimes even volunteer to promote and translate for the site. This "crowdsourcing" production mode, which relies on absorbing the leisure time of Internet users and surplus labor productivity, has also become an important way for contemporary Internet companies to realize capital appreciation. In China, the typical representatives are sina weibo, zhihu and other platforms. Taking sina weibo as an example, sina weibo builds a platform for netizens from the perspective of commercial consciousness. The expression and sharing of users on this platform are in essence cheap or even unpaid labor. Users maintain the Internet as free labor, but do not perceive themselves as being exploited by the digital platform. At present, new media users who produce content are in fact in a state of hidden exploitation.

The existing platform rule is to "empower" users by de-weighting non-users. In order to gain access to the network platform and obtain the conditions for digital survival, isolated individuals must obey the rules of the platform. Users have to transfer the copyright of the content they produce, the right to obtain data and information, and some privacy information to the media platform. Under this rule, the network platform lacks the protection mechanism for the copyright of the content published by users, which makes the content published by users easy to be used by thieves. At the same time, there is no reasonable safeguard system for the rights and interests of workers on the network platform. Network platform creates a good user experience environment. In fact, its content organization structure attracts users with user-created content. In this case, the income distribution between network users and network platform is not balanced. Users of the network platform can only gain revenue when they have accumulated, and the platform can also gain huge profits from scattered attention, such as advertising and data information. In fact, the problem of "digital labor" ignores the subjective value of human beings, and users are aware of the existence of labor exploitation. Only by the network platform weak emotional maintenance, a small amount of value return is not enough to maintain the user. Many users have become passive producers, which is not conducive to the development of the platform and the acquisition of long-term benefits of the platform. Therefore, it is necessary to create a better ecological environment for the network platform, give more protection to the users of the network platform and pay more attention to the value of people, so as to make them play more value surplus.

3. Problem solving measures

The first is to solve the problem of ownership of "digital achievement". Throughout the current digital labor production process and results, the final interpretation right and dominant right of data transmission are occupied by large digital capital platforms. From the perspective of national and social governance, to regulate the monopoly of digital media platforms, it is necessary to actively intervene and take necessary administrative measures to regulate them.

Secondly, to create a better online platform environment and improve the negative impact of "digital labor", existing platform rules need to be changed to some extent to protect users' rights and interests. By improving the way of profit distribution, a better platform mechanism can be created to ensure the balance of rights between users and the platform in production, trading, distribution and other links, so as to realize value transmission.

Third, technology empowerment, the use of block chain technology to break the current rules of copyright transfer platform. Using the latest blockchain technology, the fragmented and decentralized labor time is accurately and quantitatively calculated, so as to determine the amount of labor of digital workers and achieve distribution according to work, so as to avoid the continuous deepening of the plight of digital labor.

4. Conclusion

In conclusion, the digital industry relies on free labor to increase capital by exploiting the value of digital workers. Digital capitalists use technology monopolies and ideological indoctrination to make people willing to work for them for free. In order to maximize capital accumulation, digital capitalists constantly extend the scope of exploitation to People's Daily life. With the spread of wireless networks and smart terminals, people are using digital platforms anytime, anywhere, which means producing surplus value for digital capitalists all the time. Capitalists use digital technology to exploit workers, but digital technology in turn empowers workers and helps them unite against capitalist exploitation. By sharing data through new technologies, it is possible for individual intelligence to be connected virtually, thus breaking through the limitations of individual intelligence and forming a collective intelligence to fight against capital exploitation. In the future, when people face the impact of more digital technologies on their daily life, they should pay more attention to social equity and justice and reduce the exploitation of workers and users. People should properly use digital technology tools, rather than indulge in the virtual world forged by digital technology, so as to avoid being materialized into virtual goods sold by capital.

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