An Analysis of Modern Technology and Social Acceleration

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Abstract: Modern technology is both the main driving force of global capitalist development and brings about continuous social acceleration. Starting from Marx's analysis of technology and capital, the article explores the great impact of modern technology on business activities and social life, as well as on individual workers, and reveals the risks and opportunities from the actual situation in China.

1. Introduction

The accelerated development of technology has become a new global dynamic that has facilitated the material level of productivity and the integration of the world market. It allowed a variety of new contradictions to emerge. Technology has made the capitalist system of exploitation complex and even invisible, and the way in which capital purely exploits the labor of others appears to have been improved.

In order to understand the relationship between technology and capitalism, it is important to begin by examining the two concepts of capital and capitalism. According to Simmel, money is a relationship of exchange that unites individual experiences and embodies human and social interactions, and it also brings more equality than feudal societies that achieved individual equality through religious and political means. The emergence of money gives us the possibility to achieve equality directly. According to Professor Sun Zhouxing, there are three main points in Simmel's philosophy of money:

1). money itself becomes a function, and one of the features of human monetary history is virtualization; 2). the quantitative character of money allows for more precise measurement of value; 3). money is simultaneously an end and a means. Divinity-metaphysics used to dominate the spirit of all beings, but in the commercial world dominated by money, the values of the past are gradually dying out.

According to Marxists, the period of capitalism is the period when capitalist principles dominate and control production and influence the forms of labor organization. Throughout the history of capitalism, this change has had far-reaching effects and has accelerated the evolution of human society. Before the Middle Ages, wealth was simply someone's life savings; with the development of banking and trade, wealth could be inherited within families and retained for generations. Business practices are often winner-take-all, making many people aspire and strive for what we often refer to as “entrepreneurship” in our MBA programs. Profitability and business success are the means to achieve a happy life, and the accumulation of wealth is the means to make money by investing and lending money for profit or buying land and property for rent, thus becoming invincible in the business world. This is also a group of people often mentioned by Balzac in The Human Comedy, such as Neuchingen, Grandet, etc., all of whom used illegal means of operation to obtain huge profits, and often spread rumors and manipulate markets and transactions. Capital tells us early on how intractable social problems can be when capitalism expands out of the circulating commercial sphere.

Wherever there was interest, new technologies were invented. Central banks, securities markets, brokerage firms, they were invented and set up before the rise of factories and wage labor, and before the study of economics. In Europe, bills of exchange, stocks and insurance were among the earliest forms of financial engineering, and as these financial techniques were invented and put to use, waves of speculation and bubbles were unleashed. Marx studied bills of exchange in depth and

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analyzed in detail in Capital the enormous impact of capitalist virtual money on the field of production and circulation. He made detailed calculations to assess the proportional relationship between the price of goods in production and the bills of exchange corresponding to these goods in the market and found that bills of exchange, a virtual capital, were the main creator of the crisis of the capitalist cycle. Capitalism and the technology developed under its auspices do not themselves resist inhumane behavior; only the humanities disciplines of philosophy, law, sociology, anthropology, and international relations open up discussions and reflections on the ethics of technology and capital, thus creating constraints on capital and technology.

Capital relies on technology to transcend circulation barriers and speed up turnover, and capitalists have conceived various strategies to do so, for example, for electronics producers, shortening the consumption cycle is one of the main tools to prevent market saturation. Finance is a key area in which capital operates, an area that has also been taken over by modern technology. Technology in finance has not changed significantly for a long time in history since mankind moved from barter to the use of money, but since the middle of the 20th century, technological innovations in this field have begun to accelerate, and with the invention of computer technology, electronic money, mobile payments, internet banking and a large number of investment instruments, the explosive creation and expansion of virtual capital has become very evident and the world economy has become extremely volatile. Hardware technology, software technology, and new forms of organization (private equity, hedge funds, asset management firms) have generated intense interaction. In contrast to the deterrent effect of force, the technology of the world monetary and financial system became a key instrument in the struggle for world and regional leadership.

Marx had long seen the possibility that some investments in capital did not pay off until they were devalued, and that earlier investments were sunk costs because “the increase in exchange value (land and property) does not imply an increase in real value, nor any substantial improvement in use value” [2]. Leftist thinkers believe that these extremely greedy and powerful investment bankers can buy off almost all opposition and impose a credit currency on the world that is indigestible to the present and future generations.

The techno-business society seeks to transcend all regional constraints and meet transactional needs, eliminating space with time. The time requirements of technology development strictly define the way in which space is structured, organized and used. Because the speed and cost of circulation has important implications for capital, the longer the turnaround time for capital, the lower the rate of return. What began as a superior pursuit of technology for military purposes and then became widely used for civilian purposes, time began to accelerate as technology was rapidly used commercially and social space was compressed. For the worker, the labor process must accelerate the requirement for rapid skill acquisition. In addition to faster production cycles, breakthroughs in transportation and information technology allowed for faster exchange and consumption, with the result that humanity was inundated with increasingly disposable consumer goods and life was completely dominated by a fast food culture.

The free citizens of modern society are engaged in industrial and agricultural production, political and spiritual life. For people in the age of industrial society, the focus of wage labor was not on labor itself: the input of labor was the basis for earning a living, and it was through the exchange of labor that the individual could have a sustainable life. In the industrial age, wage labor and professional career have become the track of secular life, on top of which there are millions of families, the basic unit of society, but the development of technology has made families turbulent, and more and more adults choose to give up marriage or not to have children, without any professional analysis it can be found that the main reason for this phenomenon The main reasons for this phenomenon can be found without any professional analysis: the high speed of urban rhythm leaves no time for family building, and raising children is a long-term and high commitment. A purely industrial society teaches everyone that professional skills and specialties are the key to the top of life, and that an excellent career is the only way to achieve freedom and dignity in life.

Technology is a cause of risk, a means of defining risk, and a solution to risk. On the one hand, technology assists in creating and defining risks; on the other hand, these risks are subject to social criticism. The resulting multiple contradictions can be unfolded into four points as follows.

1).Technology has gone from being a tool to a goal: from its initial application to a specific industry, to confronting itself with countless branches, mankind has been convinced/dependent on scientific and technological progress since the 20th century, and technology has swept away all the resistance it has faced. This relies on those remarkable achievements of science and technology, including the promise of a more abundant and convenient material life for mankind. Technology is both a tool and a product of the realities and problems that it analyzes and addresses.

2).Technology becomes a pathway to truth: it sets a series of decisions, rules and practices, and what cannot be integrated by it is often ignored or questioned altogether. From this perspective, science is both a creative and a destructive force. Technology has to reflect on the dark side of its promises, just as the devil in novels and movies always makes the protagonist lose something when he fulfills his wishes - and we find the same: the increasing fruits of technological development, but the rapidly growing risks that come with it. Ethical discussions and legislative actions have not kept up with the technology at all. Solutions are often difficult to reach consensus on because of the interests at stake and the scientific definitions, and effective international cooperation is impossible.

3).Technology has become a forbidden force: science has destroyed all material ideas of the past, but it has not established material ideas of the future, and people have come to fear that technology may destroy humanity or bring about a gloomy future. Doomsday wastelands, high levels of centralization, and the absence of privacy are recurring themes in science fiction and movies. The more technology continued to advance at a rapid pace, the more clearly the risky situation came into the public eye from small laboratories, when politics often seemed very slow to prevent the use of technology as a forbidden force in a sweeping manner. In the Enlightenment, technology was a destroyer of religious taboos, but today, it has become a taboo as well.

4).Technology concentrates on the expectation of change: as the general lifespan of humanity has increased and material living standards have risen, the spiritual level of humanity has not quite kept pace - people are not as concerned with their own growth as they are with the renewal of the outside world. This is also partly due to the complete destruction of past beliefs by capitalism, which fosters a shrewd analysis and calculation: there is less belief in God than in technology in return, and what was created by man can be changed by man at any time, anywhere. Science is no longer concerned with liberation from pre-existing attachments, but with defining and responding to the refined development of science and the attendant risks.

2. Summary

The humanities' sense of crisis is undoubtedly the strongest in the origins and development of the critique of the scientific and technological risk situation: industrial production has created many problems, both material and spiritual, social and individual, forming a complex dynamic. At the methodological level, there is a danger of the feudalization and totalitarianization of science and technology due to its own excessive complexity, i.e. the more unpredictable and undiscussable scientific and technological risks become, completely exceeding the capacity of the media and public consciousness, and the increasing pressure of action of political and economic institutions, where the question of who can/is exercising the right of definition becomes central.

References

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