

SHORT BIOGRAPHY FOR PETER FLEISSNER

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Peter Fleissner, professor of social cybernetics, born in 1944, is since 1990 head of the working group on Human-Computer-Interaction of the Institute of Design and Technology Assessment at Vienna University of Technology. For seven years he worked for the European Union (1997-2000 Head of the Department “Technology, Employment, Competitiveness and Society” of the Seville based Institute for Prospective Technological Studies of the Joint Research Centre of the European Commission in Spain; 2000-2004 Head of the Department “Research and Networking” of the European Monitoring Centre on Racism and Xenophobia). Before, he had worked for the Austrian Academy of Sciences, for the International Institute for Applied Systems Analysis, Laxenburg, Austria, as research scholar at MIT (Massachusetts Institute of Technology) and at the Institute for Advanced Studies, Vienna, Austria.

Brought up as certified engineer in communication technology, he holds a doctoral degree (Dr. techn.) in mathematics and a PhD in social cybernetics. He is interested in applying mathematical simulation (econometric, input-output, neural

networks, agent based) to social, economical, political and cultural problems. He is author of more than 10 books and has written more than 120 papers on the relationship between modern technologies and the economy/society. Together with local teams he created large scale simulation models of the economies of Austria, Poland, Slovakia, Vietnam and the former German Democratic Republic under transition.

Recent research projects, he has managed, include “Sustainable Development and Foreign Trade” (2003/4), “Atypical employment - Characteristics and types of precarity” (2000/2) (grants of the Austrian National Bank); “Outreach: Development of a Computer Based Training Course in Computer Literacy for Female Inmates” (grant of the European Social Fund, 1996/99); “Cultural Philosophy and Electronic Networking” (grant of the Austrian-Hungarian Foundation, International Research Center for Cultural Sciences, 1995/97).

The Commodification of Knowledge in the Global Information Society²³

PETER FLEISSNER

1. Introduction

The emergence of the global information society is a great challenge for social scientists and, last not least, for Marxian scholars. After the implosion of “real socialism” in the Soviet Union and many other socialist allies, and the parallel expansion of neo liberal regulation in international trade, new questions are put on their agenda. What are the essential changes in the productive forces? Can one already identify a new quality of relations of production? Can already germs of new developments be seen which might give hope for a better future? But there are even more profound doubts in place: Can the theoretical position of the classical Marxian thinkers still help us to get a deeper understanding of contemporary society? Is the theoretical framework and terminology of classical Marxism still adequate for the analysis of contemporary capitalism? Do we have to modify the concepts? And, if yes, in what direction? And even more important: Of what kind shall the essential economical, political, social and cultural features of a new society be, may it be called socialism or not? What will be its shape? Will it be that attractive to a growing majority of people that they give up their actual way of life in exchange for an uncertain future, taking into account the probably high costs of transition? Who is the revolutionary subject not only heavily interested but also able to transforming the ideas of a better society into practice? Or can we come along without identifying special classes or social strata?

There are several strategies at hand how to cope with such a situation. The first

²³ This paper is a shortened version of my paper “Commodification, information, value and profit” (2006) in: *Poiesis & Praxis: International Journal of Technology Assessment and Ethics of Science* Publisher: Springer-Verlag GmbH ISSN: 1615-6609 (Paper) 1615-6617 (Online)

would be to give up and to do without any theoretical understanding of the world, to make peace with and to settle in capitalism. But this would not bring us in a better position: the particular interests of a few would go on to deteriorate the life on our planet.

Another way would be to go on with the classical tools of Marxism, more and more desperately keeping up outdated concepts, following the revolutionary rituals of the past and accusing the one or the other of the socialist political leaders of having betrayed their citizens. In Europe such people are forming political sects who tend to split again and again, condemning themselves to insignificance.

A more difficult, but also more risky option is to go back to the roots and to have a fresh look at old concepts and theories, keeping the useful ones, and, if necessary, developing new and more adequate ones in the face of actual developments in society, and, in particular, in the social-scientific environment. In this paper the third option is chosen. I try to confront classical terms of political economics with contemporary developments, identifying new features of our societal reality, and looking for the shadows the future casts on the present.

2. Commodification processes

Let us start elementarily with the notion of “*useful things*”. Useful things have many attributes and can therefore be used in many ways - more or less independent of the social structure they are in. The usefulness of a thing makes it a use-value, because by its intrinsic characteristics it can satisfy some human need, either real or imaginary. Although elementary, the concept of a useful thing is not trivial, because the notion of usefulness is rather tricky. The complex cobweb of the respective society is reflected in this notion. What is useful in one society can become completely useless in another one or vice versa, therefore even a use-value does not represent an invariant over time. Marx has virtuously reflected this feature in a footnote²⁴ of the “*Grundrisse*” (*Outlines of the Critique of Political Economy*):

²⁴ <http://www.marxists.org/archive/marx/works/1857/grundrisse/f239-289.htm>. I am grateful to Dieter Haustein for this hint.

“Is not *value* to be conceived as the unity of use value and exchange value? In and for itself, is value as such the general form, in opposition to use value and exchange value as *particular* forms of it? ... Does not use value as such enter into the form itself, as a determinant of the form itself, e.g. in the relation of capital and labour? the different forms of labour?—agriculture, industry etc.—ground rent?—effect of the seasons on raw product prices? etc. If *only* exchange value as such plays a role in economics, then how could elements later enter which relate purely to use value...?”

Nowadays, where we understand the economy as a social construction and are aware of the relativity of value given to objects, we are still confronted with the same distinction and also with the transition of objects adding to the attribute “use value” the property of “value in exchange”. This process - in contemporary terms known as commodification²⁵ - did not come to an end yet. Still we are witnesses of new transformation processes in which useful things enrich and change their own essence – they become commodities by showing the twofold character of use value and exchange value.

3. Marketing and commodification of goods and services

History gives many examples of these processes: E.g. medieval farmers grew livestock, vegetables and fruits mainly for their own needs; their products were directly consumed by themselves, by the feudal lord. In contrast to that, farmers of the 21st century produce nearly everything for the market, only a tiny fraction of their

²⁵ The term commodification was first attested in 1975

(<http://www.etymonline.com/index.php?term=commodity>), in reference to art theory, still meaning the transformation of products of human creativity into goods for sale. But one should be cautious in using the term properly, because there is also another meaning of commodification in the context of software industry. David Stutz, an experienced software developer and musician, e.g. uses the term for software production whenever there exist stable standards and modularity. Although he quoted Marx on the term commodity, he quoted him very selectively, and only on aspects of value in use. Consequently all the attributes David Stutz found essential are related to the value in use and presuppose the existence of a value in exchange.

(http://www.synthesist.net/writing/commodity_software.html,

http://tim.oreilly.com/articles/paradigmshift_0504.html#swcommod, see also Naetar F (2005)

“Commodification”, Wertgesetz und immaterielle Arbeit. Grundrisse 14: 6-17.

products is directly used. But not only was the output of farming transformed into commodities. Work itself became commodified in Europe. Karl Polanyi described this very contradictory development in his famous book „The Great Transformation“. He showed eloquently that after the active transformation of soil and money into commodities the commodification of work opened the doors for a capitalist society. After half a century of protective measures of peasant work and the introduction of a kind of minimum wage by the Speenhamland System,²⁶ a “free” labour market emerged and allowed the capitalistic system to take off in a qualitatively new way. This structure became the prototype for the liberal economic policies applied later on in many parts of the world.

Labour-power still is the only commodity which – under certain conditions we will discuss below - is able to create more exchange value than is needed for its own reproduction, in terms of labour time needed for the production of the means of consumption. This difference is called surplus-value and is the basis of capitalist accumulation and economic growth.

Contemporary economies of the developed world do not only produce things or objects, they produce also more and more services on an increasing scale. About 70 percent of the Gross Domestic Product in the developed world stems from services. Within the economic framework of circulation of values services are a rather strange animal. Although they represent use values, they are consumed at the time they are produced. They do not have any continuous and permanent existence inside or outside

26 The Speenhamland System was a method of giving relief to the poor, based on the price of bread and the number of children a man had. It further complicated the 1601 Elizabethan Poor Law because it allowed the able-bodied - those who were able to work - to draw on the poor rates. It was set up in the Berkshire village of Speen by local magistrates who held a meeting at the *Pelican Inn* on 6 May 1795. They felt that '*the present state of the poor law requires further assistance than has generally been given them*'. A series of bad harvests had put wheat in short supply and consequently the price of bread had risen sharply. The situation was made worse by the [growing population](#) and because of the [French Wars](#). This meant that grain could not be imported from Europe. Things were so bad that famine was a distinct possibility and there was a fear among the ruling classes that the lower orders might be tempted to emulate the French, and revolt. There had been a spate of food riots in the spring of 1795.

<http://www.dialspace.dial.pipex.com/town/terrace/adw03/peel/poorlaw/speen.htm>.

the market, they cannot be stored, nor accumulated. Nevertheless, in market economies they can be sold once, and they are able to attract financial remuneration. The question comes up, if services represent exchange values in the same way as material products do. Marx was somewhat ambiguous about the answer. In my opinion, services do not contribute to the creation of exchange value, because they do not create value added, which is the source of profits, as they do not offer anything material which could be accumulated or invested. On the contrary, services “eat” exchange value. This is not in contradiction with the fact that in a capitalistic society services can be and are sold with a profit. To proof this idea, let us think about a closed economy which only produces services, on no material products. If we assume in addition that this economy does not eat up stocks already created, but is only engaged in using values and flows produced in the same period as inputs for their activities, this economy will not be able to survive in the long term. Because of the fundamental property of people being in need of material inputs as basic ingredients of their consumption, but also as the expansion and replacement of the production machinery is based on material products (services per se cannot be invested), the people in such an economy will die of hunger earlier or later, and if they survive by miracle, they will have to face a shrinking economy up to the moment where the production facilities are completely worn out. It needs further research, if one can see already effects of this kind (maybe in reduced GDP growth rates of the developed EU member states) in countries with a high proportion of services. Maybe, also the reluctance to increase the service sectors in the European socialist countries could be explained by this argument. In general, services there were seen as non-productive, and therefore the development of material production had higher priority.

But this inability of services (not only not to increase value added, but to diminish it) is accompanied by another effect of high importance, an effect of second order. Services can assist in increasing the productivity of labour (but this is done indirectly), and they are also able to enrich the range of consumption and therefore the well-being of people. This effect was not emphasised in the former socialist countries.

If we try to be precise, the essential difference between material products and

services is not their possibility of being marketed. Both kinds of use values can be bought and sold, and a price can be associated to both of them. Their basic difference is, on the one hand, the ability of material products to contribute to value added and to exchange value, while, on the other hand, services are in principle not able to do so. The latter allow the vendor to earn profits, but these profits have to be fed from values, created elsewhere, in material production, i.e. in other branches of the economy than service production. The system of relative prices is the instrument of modifying the (theoretically determined) values in exchange (these values are measured in units of social necessary labour time, which would emerge under the idealizing assumption of a market economy based on small commodity production) and of transforming them into “prices of production” (emerging under the idealizing assumption of pure capitalist competition resulting in equal rates of profits), but also the instrument of transforming exchange values into “market prices” as they can be observed empirically (on the basis of the actual power distribution of monopolies and oligopolies, oligopsonies and monopsonies resp.). Of course, one has to be careful in not mixing up the different dimensions of labour time and the various kinds of price systems.

4 .The role of technology in the information society

Now let us see what the characteristic features of the contemporary society are, which is often called information society. In my opinion, one of the basic characteristics of the information society is the transformation of many kinds of volatile human activities related to the creation of information and knowledge into marketable products and commodities. With the emergence and tremendous expansion of information technologies, the computer and the Internet, this has become possible for a wide range of activities and on a global. This transformation from a volatile service/activity into a full fledged commodity can be described as the result of two technical steps (reification and reanimation), and a legal procedure, the creation and application of copyrights.

4.1 Reification

In the first step, a group of services, i.e. human activities which can be

technically described in the framework of a binary system (or any other system of numbers), can be reified with the help of digital media and digital computers. Contemporary information technologies allow now everybody to store information easily, and at falling costs. The process of reifying human activities is not a really new one. It started with the human ability of painting and writing, with the invention of the printing press, photography and film fixed on paper or celluloid, and continued with tapes and records. Recently, the potential for storing information has grown once more with Compact Disks (CD) and Digital Video Disks (DVD) where information is coded in binary format.

4.2 Reanimation

We deal with technologies which might be used to store specific volatile activities on a carrier, physically or energetically. Pop or classical concerts, theatre performances, the actors posing for a movie, lectures, story tellers, but also the situation you have encountered in your holidays, the first steps of your child, are subject to reification. But the carrier can be used also to reanimate the activities of the past. They – like in a time machine - can be moved into presence.

4.3 Copying

But reification and reanimation is only part of the potential of technology. While technology prepared the ground for commodification by creating the physical/energetic basis of a commodity, which therefore can be stored, re-sold and accumulated, it undermines the possibility of commodification at the same moment by the threat that the commodity can be copied and transferred via the Internet nearly without costs – an ideal pre-condition for a communist society where the distribution of information and knowledge of all kinds should be freely possible and accessible to everybody.

But under capitalistic conditions, there exist particular interests not to enjoy such a situation. Private enterprises do not like that (in their language) “free riders” will show up. They could copy the content and could resell it at a lower price or – in the extreme - will give it away for free. Anyway, the market will be undermined and can no longer be used for making proper profits. The process of commodification is under

the threat of being reverted. While the group of potential users of software and digital content will favour free riding, the management of the involved companies would like to see a situation which will enable them to sell the output at a proper price.

5. The role of Law

To assure this, lawyers have invented particular regulation mechanisms: copyrights, patents, licences, or generally speaking, intellectual property rights. The Law has been called for support. The laws provide people who would do copies with the threat of a fine. Even if laws cannot really make copying (technically) impossible, they are sufficient to keep up a market for certain reified services. Under such preconditions the commodification process is completed and will lead to the intended result: New areas of human activities can be marketed, new sources of exchange value or opened up and – most important – new sources of profit have emerged.

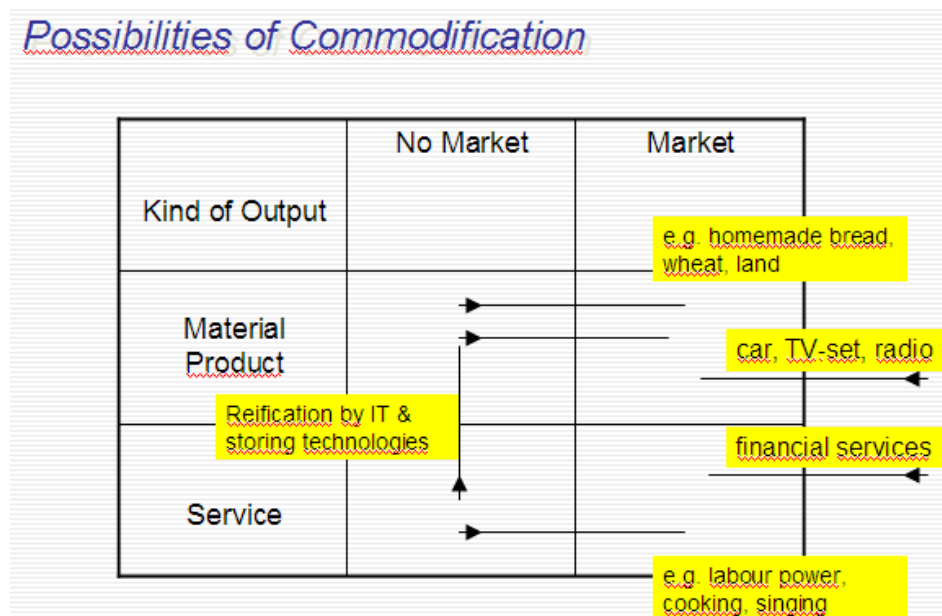
In fact, two areas of commodification are exploited by big business: There is a market for carriers of information, representing reified services, and also a market for devices to bring them to life again, to reanimate and replay the past activity. In particular this is true for software development: The code is reified in computer programs on whatever carrier you like and can be read and (re)animated by computers.

To assure the market of reified services, within the last 5 years the European Union e.g. has issued two European Directives on copyright in the information society. The “Directive 2001/29/EG on the harmonisation of certain aspects of copyright and related rights in the information society” of 22 May 2001 contains several regulations on net security,²⁷ while the “Directive 2004/48/EC of the European Parliament and of the Council on measures and procedures to ensure the enforcement of intellectual property rights” of 29 April 2004 intends to give a copyright owner proper instruments for the realisation of his rights.²⁸

²⁷ 18 months after the Directive was issued the Member States had to bring into force national legislation necessary to comply with the Directive.

²⁸ “Member States shall bring into force the laws, regulations and administrative provisions necessary to comply with this Directive by 29 April 2006” (Directive 2004/48/EC, Art. 20, Par 1)

Because of limited time I have to stop here with my presentation. Please have a look at the extended version of my paper to discover also that the very notion of “use value” has been modified by the application of copyrights. While material products already bought can be used by the new owner as she/he likes, information and knowledge commodities cannot because of legal limits. You will also find out, that this new kind of contradiction between the level of development of productive forces and the relations of production creates also resistance, on a new and maybe broader front than the traditional class struggles: In particular in the U.S. and in the Member States of the European Union we can see new groups fighting for a change of the copyright laws, for a restrictive application of patents, and for free software/open source.



Examples of big enterprises in the information society and their output in value terms

Kind of Output	Market	
Material Product	IBM Microsoft	} Production of value in exchange, surplus value and value added -> basis for profits and accumulation
Service	Google (advertising) Amazon eBay PayPal	} Neither production of value in exchange, nor of surplus value nor of value added -> no source for profits nor for accumulation