

The “information society” and the role of knowledge in society

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ABSTRACT: *The passage from industrial societies to other forms of societies has been strongly influenced by knowledge/information and technology. This transformation has had an effect on the economy and society in different ways. Some interpretations argue that such developments, based on the principle of rationality, have brought about the improvement of the occupational status of workers, whereas some interpretations argue about the elusive role of information as opposed to knowledge. In a more critical understanding, there are also interpretations which emphasise the inclusive and exclusive character of the network and the irrationality of information which on the political level sees a shift of knowledge from public good to intellectual property. This article looks at the theoretical developments which characterised the different interpretation of the role of knowledge in society.*

Keywords: *Knowledge society, information society, network society, learning economy.*

“Enformasyon Toplumu” ve Bilginin Toplumdaki Rolü Özet

ÖZET *Endüstri toplumundan diğer toplum biçimlerine geçiş, bilgi/enformasyon teknolojilerinden çok büyük oranda etkilenmiştir. Bu dönüşüm, ekonomi ve toplumu farklı biçimlerde etkilemiştir. Bazı kuramcılar, rasyonalite prensibine dayanarak, işçilerin mesleki hayatlarındaki iyileşmelerinden söz ederken, diğerleri bilginin tersine enformasyonun güvenilmezliğinden söz ederler. Daha eleştirel kuramcılar ise networkler ile enformasyonun kamusal alandan entelektüel mülkiyete geçtiğini öne sürerler. Bu makale, toplumdaki bilginin rolünü farklı bir biçimlerde karakterize eden kuramsal gelişmeleri analiz etmektedir.*

Anahtar Sözcükler: *bilgi toplumu, enformasyon toplumu, ağ toplumu, öğrenme ekonomisi*

Introduction

The passage from industrial societies to other forms of societies has been strongly influenced by knowledge/information and technology. These transformations have been encapsulated in the general term information society¹ which is related to social processes, actors, learning processes and elements such as values, languages or social representation involved with the production, storage, manipulation and diffusion of knowledge. Knowledge is growing in importance and it affects society and the economy and the two have different values and understanding of the role of knowledge (Sörlin and Vessuri 2007:2). The concept of post-industrial society exposed by Daniel Bell (1973) emphasises the role of information and knowledge in the economy. Lundvall (1996) with the learning economy also argues for a crucial role of knowledge and learning, but above all he argues for a new theoretical approach to better understand the role of 'technology, skills, preference and institutions' considered outside the explanation of economic development.

On the other hand, Manuel Castell calls this passage network society, but rather than an occupational factor he gives importance to the logic of the network which according to him is more important than the powers of the network thus giving a global character to this phenomenon. Castells, in formulating his analysis, acknowledges that those who do not have a place in the network are excluded thus representing a new underclass. Similarly, Scott Lush argues about the irrationality of information in the form of 'information overloads', 'misinformation', 'disinformation', and out of control information. In the light of these transformations, this article analyses the main theoretical developments which interpret explain the role of knowledge in society.

The progressive role of knowledge in society

One of the first to recognise the role of knowledge and its correlation with the transformation of society is Daniel Bell with *The Coming of Post-Industrial Society* (1973). In his work he offers a rather positive interpretation of this phenomenon. His assumption is based on the recognition of a movement from pre-industrial society, to industrial society and to post-industrial society. To define this change, he argues that post-industrial societies are characterised by the importance of the professional and the technical class which eventually, within the information society, expand improving the occupational status for everyone. Bell argues that the US are leading the way towards a new type of system, that is the 'post-industrial society' and that this would be a main element in 21st century USA, Japan and

¹ Frank Webster (2006) argues that the term 'knowledge society' is often preferred for its more inclusive meaning of different kinds of information (p.28). Sörlin and Vessuri (2007) in some occasions also refer to information society and knowledge society (p.21). Lundvall (1996) maintains that information can be codified and transferred and knowledge is related to 'tacit' knowledge.

Western Europe (Bell 1973:X).² In pre-industrial societies the dominant activity was agricultural labour, in industrial societies factory work was prevalent and in post-industrial societies service employment is dominant. These changes are due to the principle of ‘rationalization’ or ‘efficiency’.³ In a post-industrial society based on services it ‘is a game between persons’ and what is important is not muscle power or energy but information (Bell 1973:127). In the post-industrial society research plays a major role in innovation showing a new relationship between science and technology because of the importance of theoretical knowledge (Bell 1973:212). These almost prophetic considerations of societal change and knowledge as a major role suggest that these transformations follow the project of modernization and that advanced democracies such as USA and Japan undertook them as part of making their national economies more competitive.

Another account of these transformations is offered by Lundvall (1996) whose theories of the learning economy developed in a national setting⁴ and employed to move towards the creation, at EU level, of the knowledge society. Similarly to Bell, the concept of the learning economy accounts for the changes in technology, skills, preferences and institutions, as well as the increasing role of knowledge in all aspects of the economy giving the role of knowledge and learning features for a new phase in the economy (Lundvall 1996:1). For Lundvall, however, the learning economy is not synonym of the information society because knowledge is not the same notion as information. He argues that the latter is part of knowledge and can be divided into smaller parts, on the other hand, knowledge is more general and it comprises skills and ‘the process of building competences’. Moreover, he points out the theoretical inadequacy of previous interpretations, where technology, skills, preferences and institution were regarded as outsiders in explaining economic development. Crucial for Lundvall is the ability of the economy to ‘learn’ and also to ‘forget’ since it is a feature of learning new skills. In the economy it is also reflected the success of individuals, companies, regions and national economies. Changes are characterised by the rapidity of economic change where the demand for new skills is greater.

² Bell places in the list also the Soviet Union since his work precedes its fragmentation.

³ Anthony Giddens (1987), addresses the increased role of knowledge in society with the term ‘radicalized modernity’, maintaining that since the beginning, referring to the rise of modern societies, societies were ‘information societies’ now characterised by the development of the features of modernity he argues that modern societies have always been information societies and for this reason we are not entering a new information society era (Giddens 1987:27).

⁴ Lundvall articulated his theories based on the economic performance of Denmark, also arguing for the importance of national settings in achieving the learning economy; ‘The Danish Model and the Globalizing Learning Economy – Lessons for developing countries’ (2008).

Critical aspects of the role of knowledge and society

Manuel Castells calls these different interpretations related to social, technological, economic and cultural transformations the network society. He also recognises the passage from industrial to information age related to information technologies of communication and also biological technologies. According to him, information has replaced energy in determining productivity but also for the elimination of space, as it can be seen in globalization, and for the real time feature of communication. Castells also believes that networks are not a new feature in the form of social organization but they have become important in decentralizing operation and increased control (Castells 2000:176).

For this reason, power now is in networks and the network, as a structure, is more powerful than the powers of the network (Castells 1996:193). There are different kinds of networks; some are global like the financial capital, or within and between businesses where organizations are project oriented rather than 'capability-oriented'. Resources such as employees and consultants are brought together to work on a particular project and then reallocated. This leads to inclusion and exclusion from the network and the people at the bottom are those who have nothing to offer and are excluded.

According to Castells, the age of industrial age conflict between production based classes ends and much of the capitalist power have moved to those who manage the networks and the class of human capitalists have been replaced by 'collective faceless capitalist of the network. Although organizations are situated in places, the logic of the network is 'placeless' and it depends on the 'space of flows' which characterises information networks (Castells and Nyiri 2004:23). This dimension challenges the space of places such as regions, communities and nation states. In this context power is separated from political representation, production from consumption and information from communication (Castells and Nyiri 2004:10). It is this inclusion/exclusion that, according to Castells, displaces people and territories domination depends on the capacity of elite to articulate and disarticulate the masses. To interact with the dominant networks also means to accept the goals of those networks.

Also Scott Lash (2002) recognises the role of information in the transformation of society. According to him, there is a radical change in the nature of knowledge which cannot be assessed and criticised with critical theories based on the dualism which characterises Kant and Hegel, therefore is concerned with the critique of the information society at the end of ideology. To explain this approach, he concentrates on the qualities which characterise information such as 'flow, disembeddedness, spatial compression, temporal compression, real time relations'. This is what characterise the meaning of the information age with knowledge production and goods and services that are produced. However, there is also the irrational side of the information society which is reflected in information overloads,

misinformation, disinformation, and out of control information. Following Beck’s rise of the risk society, information is not only goods and services but also ‘out of control bytes of information’ as ‘unintended consequences’.

Lash also points out that the ‘message’ with represent information In the McLuhan ‘the medium is the message’, Lash derives that ‘the message is the medium’ of the information society. In the past the medium was the narrative, lyric poetry, discourse, the painting but now is the message or communication. The medium is compresses and the newspaper gave the model of the information age where information comes with a very small message (Lash 2002:4). For Lash power is not as much discursive as envisaged by Foucault but informational knowledge is displacing narrative and discourse knowledge. Power is tied to commodity but it may no longer be commodification that is driving informationalization, but instead informationalization that is driving commodification. There is not distinction between use value and exchange value but it is recaptured by capital for further commodification. In the manufacturing age power was attached to property but in the information age the production of goods is becoming less important as the branding of products is becoming more important.

As with Castells, Lash warns of the exclusion in the information society which is in opposition with the causes of the traditional exploitation of workers. The information elites relay on relationships between human and machines for communication developing an identity which is not related to the local in terms of the nation but the global international which means to disconnected with the local, the national identity (Lash 2002:5). The contracting out of services promotes inequalities on the borders of society and if informationalized highly branded firms bring out the production the previously semi-skilled workers are excluded. Global information is characterised by ‘self-excluding over class’ and forced ‘excluded underclass’. According to Lash ‘informationcritique’ must deal with this (Lash 2002:5)⁵.

Concluding remarks

These different debates and interpretations consider the effects and influences of knowledge and information on the political, social, economic and cultural aspects of society. They demonstrate that knowledge has had an effect on the organization of society and that knowledge should be managed and not left to grow uncontrolled. If knowledge is

⁵ Lash develops a philosophical argument as the basis for his ‘informationcritique’ based on the critique of dualistic approach which is present in Kant and Hegel and subsequently influenced recent critical theories such as Frankfurt School and French post-structuralism.

considered to be a good it is also argued that knowledge can be influenced by interests of how knowledge interact with society, can become political (Sörlin and Vessuri 2007:1) and have implication for the production, diffusion and consumption. Furthermore, issues about the role of knowledge permeate the sphere of science policy and academia, and globalization and competitiveness. The way knowledge and information may affect and transform societies is also reflected in the relationship between science and technology and consequently science and society. This has resulted in what Fuller calls 'management of knowledge' where private corporations are involved in the business of production of knowledge. If knowledge is influencing the various spheres of society, questions may rise about the nature and provenience of such knowledge. In the Western tradition, knowledge and its pursuit is conceived for 'its own sake' (Fuller 2002:2) and knowledge thus is considered as a public good. In the context of innovation and knowledge management such a conception of knowledge production is not welcomed since innovation would be welcomed only in terms of profit, putting an end to research. In this way seizing knowledge takes over its cultivation.

The different explanations briefly outlined in the article about the changes in societies point out different characters. These interpretations provide sociological, economic and philosophical explanations to converge in explaining the different relationships between social agents and social structures. Some, like in the case of Bell, Lundvall and Castells look at the changes in the economic sphere. Respectively, they look at changes in the occupational sector, in role of information replacing and in the shift of power in the network, characterising the process of globalization. Most explanations of the role of knowledge in society perceive that there has been a radical change, in this case the change from one society to another.

Within this transformations altering the traditional mechanism of society, such occupation, production and organization based on the nation state, although in different ways, Lundvall and Lash see the need to articulate new ways of critique: the former in the sphere of the economy and the latter in the very understanding of the information society. In this respect Lundvall emphasises the role of information in the economy and Lush emphasises the limitation of conventional critical theories based on philosophical dualism are no longer suitable for the increasing important role of information and knowledge in an increasingly space which displaced human relations.

If discussions about the role of information points to changes in the way societies are organized, it is pertinent to look at how knowledge and information is generated. In this respect, in the debate about role of knowledge in innovation policies approaches to use science and technology in the improvement of the policy making process. One of the characteristic of the knowledge society is the capitalization of research because of the

inadequateness of public funding and the awareness of universities of intellectual property generated by research. Knowledge products derived from university research are assessed in terms of ‘immediate market return’. The negotiation about who owns the property between individual researchers, the research team, the research community or the institution transforms the character of the university. For this reason knowledge is now regarded as intellectual property and not as public good, and it is produced, accumulated and traded like goods and services in the knowledge society.

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