

# Information, Knowledge, and Learning Society

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## INTRODUCTION

Currently, information has assumed an increased importance in all social segments interfering significantly in the construction and distribution of social capital no longer individual and collective, given the countless possibilities of communication between individuals. This idea is supported by Castells (2003) who states that our society undergoes a third wave, where the updated information is synonymous with power, a world devoid of spatial and temporal barriers, where we access to an arsenal of information and, most important, to multiple possibilities of learning.

In our opinion, the big challenge is how we can transform this arsenal of information in knowledge contributing to the establishment of a community of learners based on skills necessary to integrate in the society of the 21st century, such as the ability to problem-solving and take decisions, the ability to adapt to new situations and, above all, to work collaboratively (Silva & Cunha, 2002). In this context the “construction of knowledge is no longer a one-sided product of isolated human beings, but a vast and distributed cognitive cooperation, where human learners participate and artificial cognitive systems participate” (Assmann, 2005, p. 23).

This way we can infer that the main objective underlying the concepts now mentioned is the need for a greater involvement of individuals in their own learning, in order to develop their personal project and their citizenship, using various resources made available by ICT to improve personal and professional performance through support networks and supporting the pursuit of personal excellence through lifelong and lifewide training.

The goal of this article is to clarify these three central concepts in a global society and which are not always understood. The text is organized into 3 sections that follow this introduction. In the first, introduction, we contextualize the new social paradigm governed by digital technologies. In the following sections we focus our attention on the characterization of the concepts of information, knowledge and learning society, highlighting the challenges that this new paradigm poses to schools and teachers. Finally, we finish presenting some final remarks.

## BACKGROUND

One of the first authors to refer to the concept of the information society (IS) was the Economist Fritz Machlup in his book published in 1962, *The Production and Distribution of Knowledge in the United States*. However, the development of the concept is due to Peter Drucker who, in 1966, in the bestseller *The Age of Discontinuity*, speaks for the first time in a post-industrial society. For Drucker, the power of economy would have evolved from agriculture to industry and from industry to services, which is based on a new precious commodity: information (Crawford, 1983).

The idea behind the concept of IS is that of a society engaged into a process of constant change, as a result of the advances in science and technology. As the press has revolutionized the way we learn, through the dissemination of reading and writing in printed materials, the triggering of information and communication technologies have made possible new forms of access and distribution of knowledge (Olson, 1994; Pozo, 2001, as cited in Pozo, 2004). This new reality demands that

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individuals' have competencies and skills required for dealing with the computerization of knowledge that "made it much more accessible (...), more horizontal and less selective production and access to knowledge" (Poza, 2004, n.p). It is in this context that authors such as Castells (2000), Levy (1996), Postman (1992), among others, announce and underlie the emergence of a new society, "the information society" also called the "third wave," by Toffler (1997).

According to Webster (1995, as cited in Coutinho, 2003), it is possible to divide the debate on the "information society" in two main currents: the first, composed by theorists defenders of Post-industrialism (Daniel Bell), postmodernism (Jean Baudrillard, Mark Poster), flexible specialization (Michel Piore) and the informational mode of development (Manuel Castells), who believe that this new model marks the emergence of a new social order that has as its basic characteristic the circulation and modification of the information in a way never before imagined, meaning a total break with the past; and the second, comprising the neo-marxists (Herbert Schiller), proponents of the theory of regulation and of flexible accumulation (Aglietta, David Harvey), national state and violence (Anthony Giddens) and of the public sphere (Habermas), who have in common the fact that, while recognizing that, in fact, the conception, handling and use of information in the various activities and human spheres reached unparalleled heights, and believe that the new social order represents a continuous and evolutionary process of society.

In our case, we will adopt as theoretical approach to support the concept of the information society, the informational mode of development, inspired by the concessions of Manuel Castells (1999), when he says that the technological revolution gave rise to the informationalism, becoming thus the basis material of this new society, in which the values of individual liberty and open communication became supreme. According to the author, in informationalism the technologies assume a prominent role in all social segments, allowing the understanding of new social-network society structure – and, consequently, of a new economy – in which information technology is considered an indispensable tool in the handling of information and knowledge construction by individuals, as "the generation, processing and transmission of information becomes the main source of productivity and power" (Castells, 1999, p. 21).

This power can be observed primarily in the economic production and in the material culture of this new society, which, according to Lojkine (2002), features three basic characteristics mean: poly functionality, flexibility and decentralized networks, strongly opposed to the industrial model whose features were: specialization, standardization and strict reproduction.

For Takahashi (2000, p. 5), "the information society is not a fashion. It represents a profound change in the Organization of society and the economy, who consider it a new economic-technical paradigm." The author also refers that this new era can be considered as a global phenomenon by directly affecting social and economic activities, since its structures and dynamics are arguably affected by the available information infrastructure.

Its discussion on this issue allows a more reflective and critical look when emphasizes that, besides having a political and economic dimension, it also presents, with enough prominence, a social dimension. The first is explained through the metaphor of a good road, because it facilitates the input and output of information flows, providing that the regions or localities are more attractive (or not) to businesses and enterprises. The second deals with the extent that these reports have, contributing greatly to promote integration, reduce geographical distances and, above all, promote an increase in the level of information of persons (Takahashi, 2000).

In this context, Manuel Castells (2000) highlights the main features of this new paradigm to understand the material basis of this new society, also called post-industrial society:

1. **Information is its raw material:** There is a symbiotic relationship between technology and information, where one complements the other, which differentiates this new era of the previous revolutions, in which was given more prominence to one aspect over another;
2. **Penetration ability of the effects of new technologies:** Refers to the influence that the technological means engaged in social, economic and political life of society;
3. **Networks-logic:** It is a predominant characteristic of this new model of society, which facilitates interaction between people and can be implemented in all kinds of processes and organizations, due to the recent information technologies;

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