Chapter 11
The Information:
A Science, an Industry

José Poças Rascão
Polytechnic Institute of Setúbal, Portugal

ABSTRACT

The purpose of this chapter is to contribute to a reflection on the emergence and evolution of information science, taking into consideration the context in which it is inserted. The information and knowledge society requires a science that studies the properties of information and the processes of its construction, communication, and use, based on the aggregation of existing literature. This chapter is a descriptive research, with the goal of identifying and characterizing the properties of information as an object of study of information sciences and the processes of its use as an industry. The structure of the chapter synthesizes the existing academic work, seeking to generate new knowledge. The results can be used to integrate the properties of the information in the different properties and/or areas of knowledge. The chapter seeks to firstly identify the properties and the apparent processes and then focuses in greater detail on some of them.

INTRODUCTION

The current society is living a time in which the stage of development can be described as modern, but it took a character so large, unexpected and complex enough to the point of distinguishing itself from modernity, overtaking it, for what we could call postmodern.

According to Santos (1986) and Harvey (1992), featuring the current society is, *roughly speaking*, the narcissism of the people, the superficiality, recovery of appearances at the expense of the essences, the high technological sophistication, the instantaneous and integrated communication (sound, image, text), usually transmitted via internet and captured on screens (lowercase or, on the contrary, enormous) of liquid crystal, the hyper-realism, i.e., data transformation and processing of the artistic achievements up to then and many others.

However, the great mark of this strange and stunning time is the fragmentation of everything and everyone. If modern man "*stresses"* faced with multiple activities in which unfolds almost to infinity, the post modernity disrupts the human being by means of an internal Division, often schizophrenic, in multiple subjectivities and identities.

Man has forgotten history, he eventually denies it, and his main concern is centered solely on the material aspects of existence attachment to the pleasures of the senses, extolling the present moment in a way almost infantile and pressurizing everything and dispersing him by a thousand possibilities and expending the best human energies.

It is in human, political and socio-cultural environment, in everything "*hyper and Hypo"*, confused and indefinite, that Information Science, endowed for the meantime with scarce theoretical resources and conceptualizations about its own identity and affirmation, is called to intervene and to forward the issues that are not a glitch, such as production, storage, organization and circulation of knowledge (the information feeds the knowledge).

The proposed work is to provide a reflection on the emergence and evolution of information science, taking into consideration the context in which it is inserted. To understand an area or topic is necessary at first, knowledge of its origins and its history. So, it presented first a little history of the evolution of science information and its development over the past decades.

The consolidation of a particular field of knowledge is, among other things, the existence of a scientific community. This in turn is composed of a number of researchers and scientists concerned to discuss and solve the problems that arise in the area. Thus the existence of a shared paradigm by members of a community will result in consolidation of the scientific community.

THE ORIGIN OF INFORMATION SCIENCE

It is difficult to point the emergence of a new science even in the case of a recent scientific discipline such as information science. However, Foskett (l969) and Ingwersen (l992) indicate the date of l958 as one of the landmarks in the formalization of the new discipline when it was founded in the United Kingdom the *Institute of Information Scientists* (IIS). To Meadows (l990) describes the origin of the new discipline from the specialized libraries (in industrial and other organizations).

According to Meadows (l990) discipline has undergone a sharp development after World War II due to the emergence of the mathematical theory of Information described by Shannon and Weaver in the late 40. This theory was adopted by many other areas, because it explains the problems of transmission of messages through mechanical communication channels. The industrialization of commercial press promoted literature phenomenon explosion not less important than the advent of the Gutenberg press occurred about1450, whose effects were more evident after the Second World War.

Its contribution to the development of information science was small but important to the history of the area, since they attracted attention for two needs. First to clearly define the nature of the information with which the professionals of the area concerned and, second, to set the framework to be applied in the Organization of that type of information. According to (Days, 2002), that is the consensus of the authors of the area that the information science emerged in the mid-20th century.

According to Pinheiro & Lena (1995) Norbert Wiener in 1948, in its book "*Cybernetics or control and communication in the animal and machine*", and Claude Shannon and Warren Weaver in 1949, in the book "*The mathematical theory of communication*", marked the beginning of what would become the

Related Content

Introduction
(2015). *Information Acquisitions and Sharing through Inter-Organizational Collaboration: Impacts of Business Performance in China (pp. 1-16).*
www.irma-international.org/chapter/introduction/134155

Expanding Bloom's Two-Sigma Tutoring Theory Using Intelligent Agents: Application to Management Education
Owen P. Hall Jr. (2018). *International Journal of Knowledge-Based Organizations (pp. 28-46).*
www.irma-international.org/article/expanding-blooms-two-sigma-tutoring-theory-using-intelligent-agents/204971

Representation Languages for Narrative Documents
Gian Piero Zarri (2008). *Knowledge Management: Concepts, Methodologies, Tools, and Applications (pp. 3288-3296).*
www.irma-international.org/chapter/representation-languages-narrative-documents/25343

IT in Knowledge Management
Petter Gottschalk (2008). *Knowledge Management: Concepts, Methodologies, Tools, and Applications (pp. 452-468).*
www.irma-international.org/chapter/knowledge-management/25111

Military Knowledge Management
R. William Maule (2011). *Encyclopedia of Knowledge Management, Second Edition (pp. 1125-1135).*
www.irma-international.org/chapter/military-knowledge-management/49059