### Chapter 3 Information Management in Project Management: Theoretical Guidelines for Practical Implementation

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### ABSTRACT

The authors start by presenting Information Science (IS) that is developed and constitutes object of research and teaching at the University of Porto, Portugal, and they explain accurately the cross-positioning of Information Management (IM), which is also shared with other social sciences and disciplines of technological character. From here, a brief presentation of the origin and nature of Project Management (PM) is exposed to emphasize the need for an effective and fully assumed approach between IM and PM. It is observed that, for specialists in PM, the infocommunicational flows are important and they seek to manage them intuitively, but without feeling obliged to ask for the expertise of specialists in IS and IM, the reverse is true (i.e. there are courses and some interesting adaptations of PM procedures' tools to be applied into informational projects).

#### 1. FROM INFORMATION SCIENCE TO INFORMATION MANAGEMENT: DISCIPLINARY POSITIONING

The practical epistemology has been so designated by Jayme Paviani to mean the articulation of epistemological and methodological problems within a common horizon and, in this sense, its function would be "to make explicit the assumptions and purpose of science in an articulated manner with the rules, the procedures and the research tools. Therefore, its contribution, as well as reflective, is programmatic" (Paviani, 2009, p. 21), and has been behind the effort at the University of Porto, Portugal, of the precise

DOI: 10.4018/978-1-5225-0196-1.ch003

and synthetic delimitation (joining theoretical concerns with the practical dimension of research) of the Information Science (IS) field. Hence, the proposed definition for it: "social science that investigates the problems, issues and cases related to info-communicational phenomenon, perceivable and knowable through confirmation or denial of the inherent properties of the informational flow genesis, organisation and behaviour" (Silva, 2006, p. 141). It is also the science that, keeping alive the documentary tradition and practice inherited from previous disciplines such as librarianship, documentation and archivistics, studies the information cycle in its fullness and transversality: origin, collection, organisation, storage, retrieval, interpretation, transmission, processing and use of information.

Moreover, the question to ask is: How is the "information" defined? This has been defined in various ways and views. In the midst of such a variety of settings, we chose to take a definition that would allow the exploring of the fixed object: "Set of structured mental and emotional coded representations (signs and symbols) and modelled with/by social interaction, able to be recorded in any material medium and therefore communicated in an asynchronous and multi-directed way" (Silva, 2006, p. 150).

To be communicated, information takes the form of a document, but it does not become identical to it even though our senses (visual and tactile) allow us to perceive the document as an artifact, and as inseparable (and symbiotic) from the mentefact (information). Perceiving the subtle but crucial difference between the content and the container, between the medium and the "substance of meaning" recorded in it, gives IS epistemic legitimacy.

The 60s of the 20th century pontificated the famous definition of IS exposed in the Georgia Institute of Technology conferences, that took place in October 1961 and April 1962, and summarised in an article by Harold Borko (1968), in which the reference to the information properties emerged, listed firstly by Yves-François Le Coadic (1994). In the definition exposed and used in the University of Porto, they appear and mainly have been specified in the book prepared to provide the theoretical and well-founded basis for the Bachelor in Information Science that began to be taught in the academic year 2001-2002 (Silva & Ribeiro, 2002). The properties of information, formalised as general axioms, are six and according to them, information: 1) is structured by an action (human and social) - the individual or societal act structurally establishes and models the information; 2) is integrated dynamically – the informational act is involved with, and results from, conditions and circumstances both internal and external to that action; 3) has potentiality -a statement (to a greater or lesser extent) of the act which founded and modelled the information is possible; 4) is quantifiable – the linguistic, numeric or graphic codification is capable of quantification; 5) is reproducible – the information can be reproduced without limit, therefore, its subsequent recording/memorising is made possible; 6) is transmissible - the informational (re)production is potentially transmissible or communicable. In addition, the properties are somehow intrinsic and "universal" characteristics of the info-communicational phenomenon. It is, moreover, in relation to this human and social phenomenon that the IS object (defined above) is (re)built.

The "steps" of the info-communicational cycle/process (object of study or *constructo*), listed above, form the IS object and can be distributed over three main specialised study areas or groups: the production of informational flow; the organisation and representation of information; and the informational behaviour (Silva, 2006). This triple division of the IS object began with an ambiguity that was being addressed, and in principle solved, which was related to the inclusion of Information Management (IM). The connection of this topic – as we will call it from now on – with the trans- and interdisciplinary IS, developed at the University of Porto, never offered any doubt. In fact, the training model that was shaped through Specialisation Programmes in Documentary Sciences, established in 1982 and closed in 2007<sup>1</sup>, was to be deepened and even radically rethought and reworked with the aim of creating a new

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