INFORMATION STUDIES IN INFORMATION SCIENCE AND ETHICS WITH REGARD TO USERS WITH VISUAL IMPAIRMENT

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Each study has two anonymous reviewers.

Contens

Introduction

This publication places itself at an interdisciplinary intersection between philosophy (especially epistemology) and information science. Traditional methodologists of science claim that science does not provide itself with its subject and its method – both are borrowed from a discipline that is more general than science itself. The fundamental theme of this work is the question: How can we define the subject of information science to which the notion of information is central? At the same time, the publication deals with certain methodological questions of information science, especially its most general foundations. It follows that we often (not always) deal with a more general discipline than information science, specifically with philosophy. However, as we are interested in questions related to information and information science, we can say that we are concerned with "philosophy of information", which seeks to define the concept of information and focuses on information science research. Nevertheless, we do not intend to set an unbreakable boundary between the philosophy of information and information science; there is a smooth transition between these disciplines in our work.

The publication is comprised of seven studies. Each study forms a closed system presenting arguments in support of particular conclusions, and it is therefore possible to read individual studies separately. Together, however, the studies form a unified whole that represents a certain concept of information science. All the arguments for this concept draw on a specific understanding of the key concept of information science – the concept of information that is confronted with several related concepts, with a certain methodological approach and various problematic issues. By reading the publication, we get answers to specific questions that are dealt with in individual studies, but also to questions that go beyond the narrow framework of individual studies and gain their significance only when we think of the publication as a whole. We can say that the publication presents a relatively comprehensive exposition of very general issues of philosophy and information science related to the phenomenon of information.

The aim of the work is to relate the following notions:

1) information – information science (information ecology);
2) information (document) – visual impairment;
3) information (artificial abortion, disinformation) – information ethics.

In the first relationship, the concept of information ecology, which can serve as a certain methodological basis or meta-theory of information science, is added to the main concepts. The second relationship adds the concept of a document, which represents a certain alternative to the concept of information. We add other terms to the third relationship, namely artificial abortion (as opposed to information within information macroethics) and disinformation (as opposed to information within information microethics). The above relationships form the structure of the whole publication which is divided into three parts: I. Information, Information Science and Information Ecology, II. Information, Document and Visually Impaired Users, and III. Information, Entropy and Information Ethics.

The phenomenon of information that is being examined has a special status. Although information science is a relatively well-established discipline, there is no agreement amongst information scientists on what information in fact is. In the first study, we conclude that this is so because the concept of information goes beyond all general categories (the term is transcendental) and falls more within the domain of philosophy (epistemology and metaphysics), which has certain implications for information science and its nature. The big question that remains is in what sense the term information is used in information science and other fields. There are three answers suggested – as a univocal, equivocal or analogical term. The second study explores the notion of information from this point of view, especially in relation to the discipline called information ecology.

The three studies that follow are concerned with the relationship of the concept of information to the issues of visually impaired users. It may seem that this is a marginal topic, but the author is convinced (partly based on his experience at The Support Centre for Students with Special Needs at Masaryk University) that the way we perceive the phenomenon of sensory impairment can bring valuable insights relevant to epistemology and information science. All studies of this section confront the concept of information with issues related to visual impairment. The first one notes the relationship between addressing epistemological questions (specifically in connection with the phenomenon of information) and the approach of library and information science to users with visual impairments. It shows that individual epistemological schools take different perspectives on these issues and suggests the most appropriate epistemological approach. The second study deals with the issue of visualization of information. Visualization is understood as a way of transforming raw data into information (data obtain a specific structure). It notes how the tendency to visualize causes troubles to the users with visual impairment and assumes that in some cases we can convert data to information in an opposite manner, which is here called "de-visualization". The question of whether the visualization effort is always necessary and desirable is raised. The third study of the second part argues in favour of the thesis that information is conceived as an

intangible content in information science and that it may lead to the fact that a component of the information flow that can be perceived by senses is overlooked, again leading to a certain overlooking of visually impaired users. This opens the question, also raised by the first study of the first part of the publication, of the future of the concept of information in information science.

The third part of the publication is devoted to the relationship between information and information ethics. Based on two different concepts of information, information macroethics and information microethics are distinguished. The first study addresses the issue of the relationship between information ethics and the problem of artificial abortion, which is considered by Luciano Floridi one of the fundamental issues of information macroethics. The second study addresses the phenomenon of disinformation, which we can identify as the main issue of information microethics.

Methodologically, we draw on critical realism, which posits that human cognition can be objective (unconstructed by the subject in the process of cognition, although the role of the subject is not entirely passive), true (a correspondence can be reached between knowledge and reality; knowledge is defined by this correspondence, what does not agree with reality is not knowledge, but a fallacy), and certain (there are findings about which we can claim with certainty that they are true). The objectivity of knowledge is connected with the assumption that there is a reality independent of knowledge, that this reality is itself structured (knowledge does not bring structure into reality but abstracts it from it). Truthfulness is connected with the assumption that we can learn about the reality directly, our cognitive structures are in touch with reality itself (otherwise we would not be able to identify a correspondence), and that we can distinguish what reality itself brings to our knowledge and what is "added" by our cognitive structures (generality is concerned here). The aforementioned foundations of robust critical realism are not arbitrarily selected; we do not adhere to them because they are likeable, but because indirect evidence can be obtained for them by transforming opposing propositions to a contradiction.

The methodological tool applied in the work is conceptual analysis, the traditional method of philosophy adopted by information science. Within the framework of conceptual analysis, we define terms by means of essential properties, classify them, and search for relationships between concepts.

Studies were originally published under different title in journals, but some of them have been revised. It can also be said that their inclusion in the publication as a whole transcends their value as separate contributions (as we have mentioned above). Information about the first publication is given in a note for each study.

I. INFORMATION, INFORMATION SCIENCE AND INFORMATION ECOLOGY