

STATEMENT

on the dissertation "Information and Entropy: Knowledge Structures in the Age of Artificial Intelligence" by Andreas Chetkovsky

Andreas Chetkovsky's dissertation consists of a total of 176 pages—160 pages of main text and 16 pages of bibliography (about 220 pages according to the BSS), with the bibliography containing about 150 sources, unnumbered, in English, German, and French. The structure of the dissertation is divided into an introduction, three chapters and a conclusion; an abstract, main contributions and a bibliography are added. The PhD candidate has three publications—one in English and two in German. He has been discharged from the Ph.D. Program in Philosophy Taught in English at the Faculty of Philosophy of the Sofia University St. Kliment Ohridski. He met all the legal requirements for admission to the defense, including the minimum national requirements.

I would like to start by saying that we have been offered an innovative and courageous research project, which does credit to the author. However, I would immediately like to point out that the presence of the expression 'the age of artificial intelligence' in the title gives the reader unjustified expectations, because neither 'artificial intelligence' nor 'the information society' occupy such a significant place in the work as to be brought up in the title. A title with a more general reference to 'the contemporary age' would, I think, be more accurate. The dissertation is clearly structured into three chapters covering the dissertation's main theses relating to information, entropy, and information processing. The sub-chapters in each of the chapters are well thought out and allow the conception to unfold in a full manner.

They manage to combine an emphasis on the main theses of the work with sufficient theoretical and empirical material to support the points made.

The main goal of the dissertation, as far as I have been able to grasp it, intends to answering the question concerning the possibilities that theories of information could realize at the contemporary stage of technological, social and cultural development, with special attention paid to theories dealing with the interdependent pair "information-entropy". The dissertation sees as its main possible contribution to these theories the processing of information from a philosophical position and, most of all, from the position of Wilhelm Dilthey's hermeneutics. Undoubtedly, such a goal is significant and worthy to be developed in a philosophical dissertation.

The dissertation moves away from the ancient understanding of information as "shaping," aiming at the understanding of "eidos"—the deepest and truest essence of every entity. Hence Andreas enters the theoretical field discussing information not in terms of meaning, i.e. semantics, but in terms of syntax, i.e. semiotics. Concepts such as 'novelty', 'unexpectedness' and 'probability' thus come to the fore in the approach embedded in the dissertation. The author follows researchers who carry the classical notion of entropy as an inseparable consequence of the second principle of thermodynamics into considerably broader scientific fields, including information theory. Thus, it is clarified that the statistical approach to entropy concentrates on the notion of 'probability', conceived inseparably from the same notion but in the perspective of information. Information and entropy thus form a unified structure in which the classical notions of "order" and "disorder" acquire a more comprehensive and effective meaning, being represented in the

rethought notions of "information" and "entropy". It is remarkable that in the course of the above transformations, the intellegible character of the ancient *eidos* does not disappear completely, but is transformed and partially preserved in an original way in the interaction of information and entropy, as for example in the self-reference (in the sense of Niklas Luhmann) of thinking through the interaction of experience and its reflection in retrospection according to Dilthey. This Dilthey's approach succeeds, according to the PhD Candidate, in overcoming the empiricism of standard psychology based on the principle of causality, as well as the limited approach of formal rationality, and manages to arrive at an irrationalism grasping the intelligible. The PhD Candidate believes that a similarly productive and innovative irrationalist move is represented in Martin Heidegger's critique of the law of sufficient reason in Gottfried Wilhelm Leibniz. I cannot help but note here that both Dilthey's descriptive psychology and Husserl's transcendentalism (Husserl also starts from descriptive psychology in his *Logical Investigations*), and Heidegger's foundational ontology and philosophy of language, represent a move to another level of rationality beyond the limits of formal-logical thinking, rather than irrationalism.

The contributions of the dissertaton to the research area adequately reflect the main theses advocated in the dissertaton and can be accepted as having the character of "contributions". I would like to elaborate on the first contribution, where it is claimed that the dissertation "traces the discrepancy between the manifestations of information in the physical world and the information appearing in the inner world of human being—psychology, etc.". One can confidently assume that by 'psychology' the author means Dilthey's descriptive psychology; however, it is not clear what is meant by 'etc.'. One can only assume that it is the "transcendental consciousness" of Husserl's phenomenology or the "transcending of

Dasein" in the version of phenomenology presented by Heidegger. In any case, the "inner world of human being" in the context of this dissertation goes beyond descriptive psychology, and this should be clarified.

I have a few critical remarks which, without diminishing the value of the dissertation, would be of value in the further work of the PhD Candidate and in particular in the possible revision of the dissertation for publication as a monograph. Adhering to a semiotic conception of information within which alone the dialectical interdependence between information and entropy is possible, in the chapter on the reworking of information the author stresses the importance of the notion of 'meaning' in information events, especially, in Dilthey's hermeneutic approach, which occupies a central place in this chapter. Since "meaning" is a term belonging to semantics, by emphasizing the role of " meaning " the dissertation deviates from the basic premise on which it is built. It is true that one could discuss a mutual transition between syntax and meaning, i.e. between semiotics and semantics, but this should be given special attention in order not to be left with the impression of a formal logical contradiction, but to show how the dialectical contradiction is sublated speculatively (in the Hegelian sense). A logical as well as a factual error related to the periodization of philosophical trends is also found in the text. We encounter references to "the philosophical trends of humanism and the Renaissance," which suggests the juxtaposition of the two terms "humanism" and "Renaissance" as equivalents—two logical genera or two logical species –when in fact "Renaissance" is a genus that contains several species of philosophizing such as Humanism, Florentine Neoplatonism, Renaissance Aristotelianism, etc. The factual error is that some authors are listed as representatives of Renaissance Philosophy who do not belong to it: while one could argue about Francis Bacon whether he is

not, at least in part, a Renaissance author, Thomas Hobbes and, especially, René Descartes, Blaise Pascal and Gottfried Leibniz certainly belong to the pre-Enlightenment period of Modern Philosophy.

Several inaccuracies have been made in the title of the abstract and in the list of publications, which I mention both in general and specifically concerning Andreas Chetkovsky's work. In the English version of the abstract on the title page, the term 'автореферат' is missing in the English translation, instead we find 'dissertation', and the file sent to us is entitled 'abstract'. Actually, the 'abstract' is just the annotation that appears at the beginning of the автореферат, and in English the автореферат should be titled 'summary'. In the Bulgarian translation, the title page is correctly labelled 'автореферат', but the annotation, which is reproduced here, is also labelled 'автореферат', which seems rather odd. There are some inconsistencies in the list of publications in terms of vocabulary and spelling: the term "union" in English means trade union, so the Society or Association of Germanists should be translated into English as Bulgarian Germanists' Society/Association (with an apostrophe), but not as Bulgarian Germanists Union; according to all stylistic conventions, words in titles of English publications should be capitalized except for conjunctions, grammatical articles and prepositions; the word "forthcoming" should be spelled one and not two words; in Bulgarian, the word "списание" should be spelled with two "c", not with an "c" and a "ц".

Let me also ask Andreas a question: how would you interpret the problematic of the interaction of information and entropy through the prism of another hermeneutical trend-that of Hans-Georg Gadamer?

Finally, I would like to express my opinion on the conformity of the submitted dissertation with the requirements of the degree of Doctor of Philosophy, and therefore I call on my esteemed colleagues of the scientific jury to vote for its award to Andreas Chetkovsky.

7.10.2024

Prepared the statement:

/Prof. Dr. Sc. Alexander L. Gungov/