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The Universe of Knowledge: On Interdisciplinarity and Transdisciplinarity

Abstract:

Since the Renaissance the universe of scientific disciplines is expanding in an accelerated way with the gaps between disciplines growing much faster than the areas of knowledge of particular disciplines. I will argue that this is inherently related to the nature of the human view of the world characterized by various horizon-like limitations of our cognition, language, and understanding. While this makes the seductive idea of "unified knowledge" unattainable, it does not mean that there are no chances for new transdisciplinary approaches, some of them bringing together even such "distant" discourses as natural sciences and humanities.

In the paper I will outline a way of viewing the fragmented world of knowledge using the framework of "domains of discourse", i.e. segments of knowledge such that conceptual and explanatory framework is more developed *within* each segment than *between* different segments. A particular case is various references to "levels" (of description, of organization, of scale, functional levels, etc.) that are so frequent in both scientific and philosophical studies. A particularly interesting features of each domain of discourse are (1) its "epistemic subject" (e.g. a community of specialized scientists) and (2) its "horizon" (the fuzzy fringe of applicability of the domain-specific concepts and explanations). It enables us to refer to open questions, unsolved problems or enigmatic phenomena in one domain of discourse, that are possibly explainable only by reference to another domain of discourse. Certain complex phenomena, like the apparent purposiveness of evolution, intentionality of mental events, free will, and various processes in social systems, can be tentatively viewed as being supported by a tangle of mutual interactions among a multitude of different domains of discourse.