

Unity of knowledge through diversity in science!

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Abstract: The purpose of this paper is to demonstrate how humanity can make use of the knowledge of different sciences in order to help solve global problems and issues. These complex global challenges and issues can be seen potentially emerging from the current information society and can not be solved with current methods and knowledge found within Information Sciences (or other *specific* disciplines) alone. Hence, an integrative, holistic and *new* scientific contemplation is needed. Furthermore, the emphasis lies in the question of *transdisciplinarity* within current research and studies.

As there is no unified definition of *transdisciplinarity* existing so far, a new approach has to be developed, encompassing four ways of thinking, which are described as follows:

Reductionism: Scientists point out the necessity of transdisciplinary research and studies, but consider that the methods, the language, the basics in general can only be found in one specific subject or discipline.

Projectionism: Representatives of this mindset try to explain their specific view of the world through “their” own eyes, for example, interpretations of the “Gaia-hypothesis”, which says that our planet earth is an organism. Therefore, typically human properties are projected onto the world.

Dualism: The concepts of multi- and polydisciplinarity can be mentioned in this context. Due to this way of thinking there is no unity of disciplines possible. Each science uses its own language and methods, thus disciplines are incompatible. See for example the item of *multiculturalism*, which means, that people from diverse backgrounds might be accepted in different cultures, but no commonness evolves, no new quality of cooperation emerges.

Dialectics: This is where, according to Wolfgang Hofkirchner and my hypothesis *transdisciplinarity* can be found. Due to the global problems that humanity is facing there is a need to find a solution to cope with today’s complex issues. Thus, knowledge of specific subjects will not become obsolete, but societies will have to find wise solutions - which means *problem-focused* solutions, whereas single disciplines have to be woven into an entire scientific area with *new* methods, a *new* perspective in which a *new* quality of problem solving will emerge. Results of any transdisciplinary research and study can not be reduced to any other single discipline. Due to complex problems Information Science (and any other discipline) is asked to think *transdisciplinary*. Global problems require global solutions and global cooperation.