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TECHNOPATHOGENOLOGY

TECHNOLOGY AND NON-EVIDENT RISKS –
A CONTRIBUTION TO PREVENTION

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Technopathogenology

According to the general proceedings of the advancement of knowledge, the problems, phenomena or events described in this book are framed within disciplines. When only one discipline is not enough to solve a given problem, many disciplines are used in what we call a *multidiscipline*. But when all the disciplines at hand cannot break the problem apart to reassemble it like a puzzle we talk about a *transdiscipline*, thus leading to the creation of a new discipline. In other words, the nature of the problem leads to the development of a transdiscipline, i.e., a language which can be understood by all the parties who are trying to solve it. The answers are not broken apart any longer but connected. This means that when a new phenomenon presents itself or is detected, what can happen is that after making the effort of framing it, the problem – which is relatively new or not very much studied – cannot be completely clarified by the existing disciplines, thus leaving still a *void in the residual knowledge*. If such phenomenon is important enough so that it needs further clarifying *in spite of*, a new discipline must be sketched out – that is to say, a new way of clarifying the phenomenon must be created. This must be the last resource, when there's no possible solution through previous methods. Finally, the void in knowledge and the void in a methodology to study it – which denounces a phenomenon not very much clarified yet – allows to draft out a specific science.

Every search begins with a question. If whoever asks it is not satisfied with the first answer, a new question may arise, and then another and another, making the subject to be successively re-studied or re-investigated (research, recherche, ricerca). Such is the beginning of research itself. Every research is a continuous search, an *endless search* (Popper, 1973) or an *unconditional search for knowledge* (Westerholm, 1999). This search that begins with the question can be clarified through experimental means, but can be also pursued intellectually, leaving aside experimental means which would only lead to a dead end in spite of the formal beauty of the task. The search is then carried out with the *whole person*, metaphorically speaking, with a *common sense method* in which every tool that the researcher has is eclectically accepted. In some cases, his or her experimental tools may not be the most important to clarify the problem and in other cases they may be crucial. Therefore, each tool is adjusted to each question.

We will observe how a new phenomenon was found while trying to develop an in-depth answer to a question. A problem which *should not have but*

actually was there and it had negative consequences to human health. A problem we call Technopathogeny. A problem whose disciplinary void allows for the creation of a new discipline for its study: Technopathogenology. We are saying that it should not have been there because within the positivist conception of science, the Technique that emerges spontaneously from the accumulation of positive knowledge should be as perfect as the science it originated from.

We will try to frame this new discipline within the framework provided by the generally accepted epistemological criteria.

The aim of science is to learn more about a problem, and we all agree on that. But there are different types of problems. Some problems are so complex that it could take a whole life to approach them correctly. The so called environmental problem is one of them.