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## **Precautionary principle and technological design.**

The central point in this lecture is that although we sorely need technology-risk-management procedures based on the idea of the precautionary principle, a conservative approach to precautionary action can raise, instead of mitigating, risks stemming from science and technology. The application of the precautionary principle on technological design – if exclusively based on standards and rigid methods of assessment reducing the complexity of information into simplifying indicators – leads to a premature abandonment of inventions and innovations (with sometimes devastating implications often contrary to the intentions of regulators), to ad-hoc decisions with totally unpredictable consequences or even to inaction. Alternatively, we can think of more qualitative approaches based on narratives and structured debates as the ones we know from the traditions of litigation processes, which might more efficiently expose the implicit features of cognitive resources and design strategies. However, this would require a different epistemological point of view than the one adopted by the conservative advocates of the precautionary principle. More precisely, we would need theories of science and technology focusing on inherent rhetoric and internal ethics, and not on externalist and consequentialist approaches to the judgment of ideas and practices. Disputes on the precautionary action rarely apply to information and communication technologies. The last part of this lecture will focus on the significance of a critical approach to the idea of the precautionary principle for the understanding of the design processes hiding behind the evolution of complex information systems and the implications of software code and system architectures.-