Rischio, comunicazione e società/Riesgo, comunicación y sociedad

#Call for chapters

New perspectives on technological risk.

Themes, policies, communication, perception

Call for chapters

Technological risks have their origin in the continuous increase of tools and technological applications that do not have an adequate security management. Its implementation in organizations, in society or in public institutions is due to the fact that technology is the means of threats and attacks because of existing vulnerabilities due to inappropriate protection measures and their constant change, factors that make each more difficult to keep these security measures updated.

The technological risk can be seen from three aspects, first at the level of the technological infrastructure (hardware or physical level), secondly at the logical level (risks associated with software, information and information systems) and finally the risk derived from misuse of the above factors, which corresponds to the human factor as a third level. There is a need to consider the potential risk of using new technologies and materials where their potential impact on both people and the environment may be unknown. As with working with many unknowns, a risk assessment needs to be employed.

The technological threats are identified by the presence of an agent that endangers the human being, his works and his environment, given the possibility that technological accidents are generated. Based on this definition it is clear that the evaluation of a technological risk does not only depend on the presence of a specific agent, but also considers other variables such as: History of events in the area or source of risk, safety conditions in which it works the system that has the threat, degree of interaction of the threat with the threatened systems. The threat itself is not determined by technological development or the use of chemical substances, but rather by the way in which the society interacts with the different threat agents. There are two major frames for technology risks: Frame 1. The context of classic technology assessment looking into the impacts derived from the application of specific things and other passive structured materials in different areas of application (such as paint, cosmetics, food, and coatings, and agriculture, and health). Frame 2. The context of social desirability of innovations: changes in the interface between humans and machines/products and ethical issues of the boundaries of intervention into the environment and the human body.

The category of technological risk evolves together with technologies. Nowadays, when we think about technological risk, we think about industrial technologies, but also about a set of new

technologies that produce new risks. These are technologies such as Internet and Web 3.0; it is about natural disasters; of the ability to manage new events; of chemical disasters; of the effects that technologies produce in urban spaces and in the lives of citizens, such as the genetic manipulation of food, or the nanotechnology, etc.

The purpose of this request is to encourage new studies of technological risk. What's new in technological risk compared to the past? What are the most risky technologies? What are the effects on citizens' lives of new technologies and the risk associated with them? What perception do citizens have of this new risk? What is the point of trust today in the new technological risk?

We encourage both theoretical and research works on this topic, such as (not exhaustive):

TOPIC: The Languages of Risk Communication

What are the languages of technological risk used by media, old, new and social ones? What's different today in the communication of technological risk than in the past?

We want to explore these new moods and models of communication, as they are performed by governing agencies, individuals or groups. The goal is to better understand what has been changing in risk communication landscape also considering the implications in terms of social amplification of risk.

TOPIC: Narrative on Environmental Conflicts Debate

According to a well-established narrative within environmental conflicts debate, risks would be a by-product of technology, able to unleash unprecedented, catastrophic risks over individuals and communities, as a Pandora box. Anyway, things are often more complex than they may appear, and this simplistic interpretation of the idea of man-made disasters may overshadow technologies' potential to reveal and foresee impending hazards posed by natural events, such as earthquake, tsunamis and volcanic eruptions, turning them into risks.

TOPIC: Urban-Architectural factors

In our society, increasingly urban, we ask ourselves if the population considers as environmental risks urban-architectural aspects of the city and so we consider the possibility of adding them to the original list defined in the literature for civil protection where only the hydrological and meteorological factors, geological factors, physical-chemical factors, health factors, socio-organizational factors. The urban-architectural factors, from our point of view were not contemplated in any of the existing categories; but that due to their impact they should form an independent category, a separate group; we integrate it with: spectacular advertisements, visual pollution, damaged buildings in its structure, poor drainage, high buildings, lack of green areas, underground gas networks, noise from cars, noise from factories, industries or commerce, noise from construction sites , intense vehicular traffic and industrial zones.

TOPIC: Technological risk perception (Psychometric Paradigm)

The psychometric model has analyzed the factors highlighted in the adaptation of the human being to technological risks. The laboratory has been used to solve complex problems where the

probability of something happening and the frequency of the event are related. From the psychometric perspective, attributes of the risks related to the acceptability or unacceptability of the same have been analyzed.

Most of the studies under the psychometric paradigm, are concerned with the study of judgments of acceptability of risk. The question of how safe is quite safe? Produced the first investigations and the progress of this approach. The acceptability of risk was considered as the central element of technological development, of risk assessment and of the balance between risks and benefits.

TOPIC: Quantitative and Qualitative Risk Assessment

Quantitative and qualitative risk assessment techniques have risen to an established component of the integrated decision-making process. Then, the aim would be recognize and/or propose methodologies for the risk analysis and management based on qualitative and quantitative methods and models in order to identify and quantify the technological risk assessment.

TOPIC: Nanotechnology Risk Analysis

Nanotechnology is the design, creation, synthesis, manipulation and application of nanometric-scale materials, devices and functional systems, which means that they are on a scale of one billionth of a meter (10 ^ -9). Matter, when manipulated to such a minute scale, behaves unexpectedly and adopts totally new properties. For this reason, scientists use nanotechnology to develop novel and inexpensive materials and systems with unique properties. The applications of nanotechnology are among other fields to the environment, to energy, to medicine and to communication and information technologies.

An issue of specific importance is the properties of the nanomaterial as it is actually used in products and to which consumers may be exposed. For the risk assessment, the latter characterisation is of highest relevance. Some specific hazards, discussed in the context of risk for human health, have been identified. These include the possibility of some nanoparticles to induce protein fibrillation, the possible pathological effects caused by specific types of carbon nanotubes, the induction of genotoxicity, and size effects in terms of biodistribution.

This topic aims to: 1) Facilitate the exchange of ideas and knowledge among practitioners, researchers, scholars, teachers, and others interested in risk analysis and emerging nanoscale materials. 2) Encourage collaborative research on risk analysis and emerging nanoscale materials. 3) Provide leadership and play an active role in advancing issues related to risk analysis and emerging nanoscale materials. 4) Brought together risk analysts with nano-experts in to advance our understanding and build new networks 5) A deliberative workshop to address: – What is “nano” about risk assessment for nanoscale materials? – What tools in the field of risk analysis can be used for managing nanomaterials? – What are the needs for communicating about risks? – How to consider the benefits of nanotechnology for risk reduction?

TOPIC: Natech Risk Governance

Both of the following approaches will be taken into account for proposals:

a) Natech risk management as a part of chemical accident,
b) Natech risk management as a part of natural disaster risks accident.

Starting from the main international frameworks addressed to the implementation of Natech Risk Management in the EU and OECD, contributions are expected to focus on: main legislative tools the EU have implemented to better address the Natech risk among Member States; main challenges met by Public Authorities in effectively implementing Natech Risk management measures at both Local and Regional level; best practices and case studies in the field of raise awareness activities addressed to citizens living closer to hazardous facilities.

Scientific Committee: Fabio Aiello (University of Enna "Kore"), Andrea Cerase (INGV - Rome), Dario García Rodríguez (University of "la Laguna"), Marcella Giacomarra (S.E.I.I. - Scientific Research Center for Economic Development and Industrial Innovation), Gevisa La Rocca (University of Enna "Kore"), Juan Martínez Torvisco (University of "la Laguna"), Eva-Leticia Ortiz Avalos (National University of Mexico), Tiziana Ramaci (University of Enna "Kore").

Submission

The authors' proposals must be submitted in the form of a long abstract (no more than 5000 characters including spaces) by **09 October 2018** at the following email address: gevisa.larocca@unikore.it

Proposals must contain:

- Title of the contribution
- Name of the author(s), email address, membership body
- Description of the theme treated (no more than 5000 characters including spaces)
- Biosketch of the author(s) no more than 100 words.

Notification of acceptance: 10 November 2018

The authors - whose abstracts will be selected - will have to deliver the extended paper, no more than 10,000 words (notes, bibliography and spaces included), by 30 March 2019.

The work will be published by Cambridge Scholars Publishing.

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