

THE PROBLEM OF THE PUBLIC UNDERSTANDING OF TECHNO-SCIENCE AS A PREREQUISITE FOR THE DEVELOPMENT OF A RESEARCH CULTURE

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Public space is a favorite field for the exercise of communication policy about techno-science. The development of inter-communication networks within society renders the objectives of research policy more distinct and the results more tangible. The enrichment of scientific outfit and the training of people is one side of the issue. The other, less observable, side pertains to the social relations developed between the community of researchers and the public, their outcome being the formulation of the public figure of research foundations and their work and consequently the reinforcement of their prestige. The objective is to support ordinary people to understand technical and scientific terms, the research methodology used and the social and statutory organization of the scientific research procedure, as well as to clarify the attitudes adopted by the public concerning the social repercussions of science and technology.

The links between the community and the researchers designate new roles for the operation of research foundations, constituting what is called in the USA “Community based research” a tool for the development and acceptance of research work by society. An indicative example is the positive consequences arising from people training with the reframing of scientific speech and the promotion of research achievements that transfers a change in mentality as far as the understanding of the value of techno-science is concerned. It is worth quoting the remark of Dan Goldman, Director of NASA in the USA, concerning the investigation of people attitudes, who concluded that meteorological satellites are useful since Time channel already exists.

Moreover, Technology and Science are often associated with disasters (Chernobyl, Bhopal, Thalidomide, Challenger, atomic bomb), constituting a source of a problem, rather than a solution to the problem and should therefore be avoided, whereas in the same research Biomedicine is associated with teratogenesis and threats for the humankind. An apparent aversion to science is noted, which is a result of ignorance. Therefore, knowledge should be diffused in various parts of society contributing to the change of opinion and the cultivation of critical thinking.

The increase in public understanding of techno-science will contribute to the comprehension of scientific progress and procedures, to the development of critical thinking and to people participation in decision-making. In education we should realize the importance of authentic scientific motivation among young people, offering opportunities for early expertise in a scientific context. The meeting with the area of the production of research work also contributes to the enrichment and transformation of concepts and the reframing of knowledge.

Popularization remains an unexplored field for scientific institutions. The translation and transfer of scientific and technological production for a common understanding results inductively in the construction of knowledge and the elevation of the prestige of the scientific community.

The design of a political diffusion and scientific popularization appears to be a tool for the formulation of an educational policy, a space of communication and an open dialogue among people and the scientific community, whereas it indicates the need for a strategic focus on the use of advanced means of communication for its support. A strategy for the diffusion of research and scientific knowledge without accompanying measures is therefore incomprehensible.

In a report to Directorate XII of the European Commission composed by Bertrand Labasse in 1999, entitled “The communication of scientific and technical knowledge”, it was noted that the fundamental problem regarding the diffusion of scientific and technical knowledge paradoxically consists in the lack of knowledge about this matter, as well as the lack of diffusion in the various factors. The reasons explaining these problems are detected in the fact that diffusion channels are rarely pinpointed,

while ad hoc practices are often adopted without any clarified targets. The establishment of local initiatives would gradually lead to the creation of an example according to Kuhn that would change attitudes and perceptions. A prerequisite for such a methodological approach is the investigation into the ways that scientific knowledge is absorbed, the recognition of the produced added value and the determination of the needs for scientific knowledge among people. It is consequently necessary to encourage and finance the research that analyzes quantitative, empirical, technical and learning data in order to achieve communicative goals. Actions that could formulate an efficient policy would be

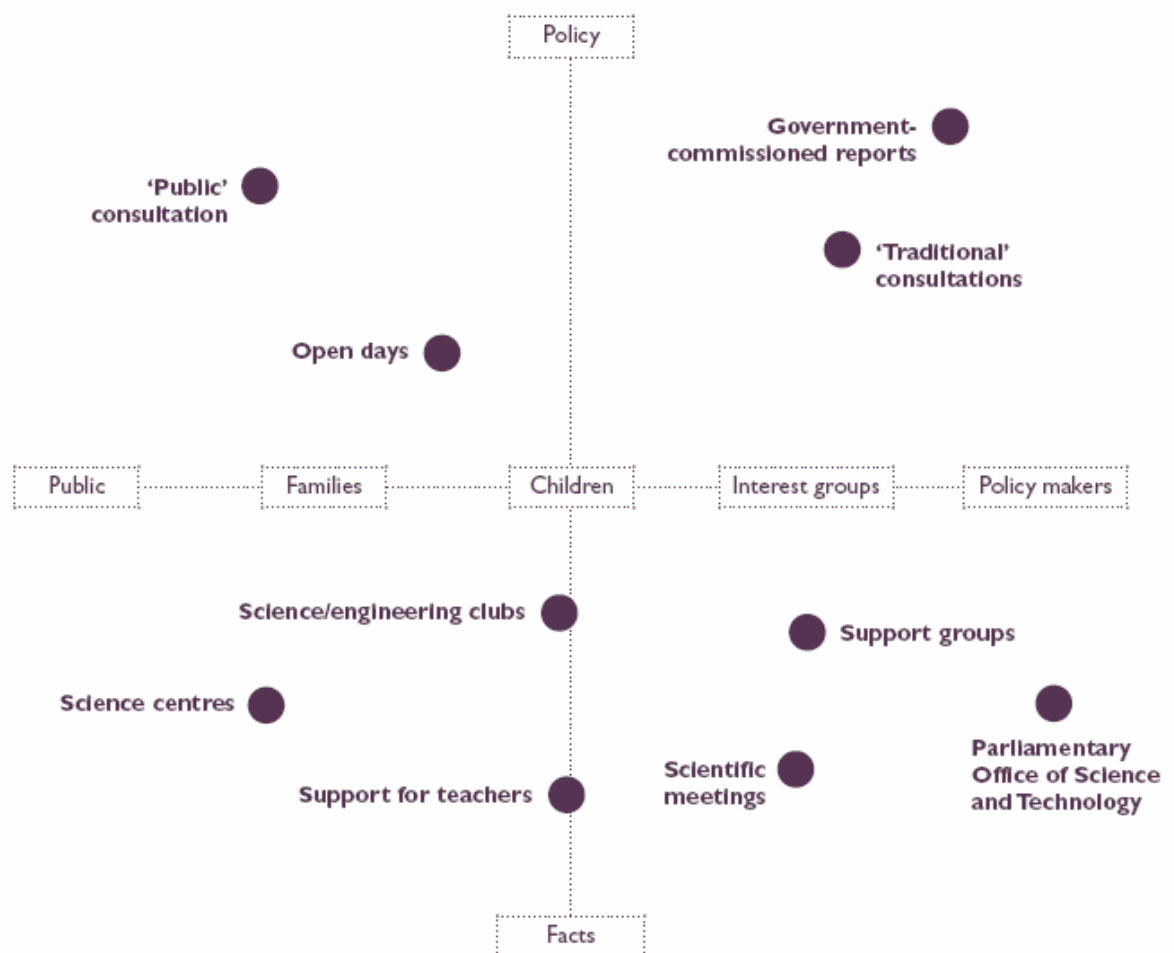
- the determination of technology and means of communication for the promotion and understanding of techno-science,
- the presentation of practical innovative approaches,
- the creation of an on-line journal and
- the determination of the audience before every event, since often there is a diffusion of complex knowledge in an unsuitable environment.

Taking for granted that mass media decisively influence the comprehension of techno-science, we should specify the way in which we shall encourage the mass media to promote research results and determine the type of communication policy that is to be followed by the research community. Moreover, it should be answered how infra-structure should be utilized, how the access to data and attitude models will be facilitated and at the appropriate degree of information understanding.

It is therefore necessary to inquire about way and means of the acquisition of the information, its utilization, the needs of the public for scientific knowledge, the search for technological keys and means of communication for the promotion of scientific knowledge and better understanding, as well as the recording of good practice and the publication of special editions.

Public discussion about the formulation of a policy in research is a priority for the function of democratic institutions. It is significant to note that scientific meetings should be based on factual data and should be orientated to a specialized public with an expressed interest in these issues. A research carried out in Great Britain (Science and the Public. A review of science communication and Public attitudes to Science in

Britain Report. October 2000) revealed that most publicity actions focus on information supply activities rather than on a commitment for participation in a dialogue, while the open day events in research foundations are usually of a limited range, although they may attract part of the public from a distance. In the same research it is observed that focusing on facts and the use of inter-governmental dialogue results in an agreement on the formation of a policy based on international criteria. However, common practice is characterized by a lack of actions that invite the public to participate.



Source: Science and the Public. A review of science communication and Public attitudes to Science in Britain. Report. October 2000