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HOW TO INCREASE SCIENCE AND TECHNOLOGY POLICY ACCEPTANCE IN PLURALISTIC SOCIETY

Abstract:

Recently, the rapid advancement in science and technology has caused various side effects in our society. Besides traditional and direct side effects such as environmental pollution, the low level of policy acceptance in S&T field comes at a great social cost. In spite of experts' approval, the public opposition to the expansion of atomic power plant and genetically modified foods, for instance, is ongoing. The market entry of autonomous vehicle and drone are yet to be implemented because related regulations have not been fully enforced.

In recent times, the impact of S&T advancement on our daily lives keeps expanding and public needs for S&T development are getting more diverse. In other words, the societal paradigm is transformed into a pluralistic society in terms of S&T policy. The policy makers in S&T field, however, still remain in elitism regime. The policy makers still do not take into consideration the fact that expert opinions on scientific knowledge is inconsistent and sometimes even antithetical in modern society due to its complexity and uncertainty, as Ulrich Beck pointed out in his book "Risk Society" in 1986. In this regard, not only expertise and soundness of scientific knowledge, but also "social consensus" should be considered for S&T policy making.

In order to promote public scientific literacy, Korean government has executed a science culture movement since 1970s. From 2003, "The Proliferation Program of Science Culture(PPSC)" was launched and renewed every five years. As a result, public understanding and interest in science and technology has gradually increased. However, based on our recent survey, more than half of the respondents answered that there is no sufficient communication channel to deliver their opinions to policy makers. This implies that the current science culture movement is top-down dissemination of scientific knowledge from experts to the public, although the 'interactive' communication was emphasized in PPSC.

Another system to include the public in the S&T policy making process is the "citizen panel" of "Technology Assessment." According to our recent survey of the citizen panel, the system is satisfactory in terms of representativeness, effectiveness, and policy-making methodology overall. However, the citizen panel was not fully satisfied with the degree of acceptance of their opinions to the final policy.

Conclusively, in order to reduce the social costs resulted from the low level of public S&T policy acceptance, "interactive" dissemination of scientific knowledge or culture, and more powerful citizen participation in policy processes are necessary.

Keywords:

science and technology policy, policy acceptance, technology assessment