

**Parallel Session 29: Is it a real social participation in GMO discussion?**

**COMMUNICATING GENETIC ENGINEERING: NEW CONCEPTS  
FOR SOCIAL PARTICIPATION**

*Bernhard Wieser*

*IFZ – Inter-University Research Centre for Technology work and Culture.  
Schlögelgasse 2, A-8010 Graz. Tel.: ++43/316/81 39 09-40, Fax.:  
++43/316/81 26 61-11, E-mail: [wieser@ifz.tugraz.at](mailto:wieser@ifz.tugraz.at)*

**Abstract**

Many publications can be found within the social science domain calling for a change in the communication of scientific expertise in terms of increasing participation and democratization. Still the question that remains is: How do we do it? How must science communication be organized that it does not fall back on the so called deficit model and as far as genetic engineering is concerned does not focus on the knowledge-acceptance-relation. After more than five years of experience the author has gained valuable experiences in organizing such communication processes. Against the backdrop of this some conclusions can be drawn.

**Key Words:** Genetic Engineering, Participation, Education

**Text**

Aiming at Participation

When asking for socially sound design of science and technology, one will often get one answer: this can be ensured through participation. A stronger involvement of users, consumers and patients seems to be appropriate to achieve a socially sound practice. Genetic engineering is a prominent example where science communication plays a crucial role. That more should be done to inform the public was a common demand in the course of bio-tech controversies in many countries. Most often the framing of genetic engineering as a problem or matter of science communication focussed mainly on the fact that the public would to a very large extent reject most applications of genetic engineering. A characteristic feature for the concentration on the acceptance problem is its framing. In this view the lack of public acceptance is explained by a lack of information and knowledge in the public sphere. Consequently an increase of information is seen as an adequate means to solve this problem.

The point here is that such a framing which focuses on the knowledge-acceptance-relation goes along with a specific form of science communication. The communication style has become known as the “deficit model” (cf. Wynne 1991). The deficit model refers to a communication mode that concentrates on formal knowledge and aims at imparting such formal knowledge. Against the backdrop of this approach, experts only need to explain genetic engineering properly and all doubts and resistance of lay

people will disappear into thin air. In this framing the seemingly neutral element “knowledge” serves various objectives.

It is obvious that a framing of the relation between science and the public goes along with an instrumentalisation of science communication: Science communication as provision for acceptance. Researchers have found much to criticise in the deficit model. Against the backdrop of the critique on the deficit model many call for alternatives that are occasionally called the democratic model (cf. Durant 1999:315). In essence its aim is to overcome the privileged position of scientists, as well as the one-way-communication from experts to lay people. What is demanded is a equal communication between scientists and non-scientists. In other words an extension of science communication in terms of a true dialogue is needed: the acknowledgement of local and practical knowledge, the right to a say for effected people and the inclusion of contextual aspects such as values, power-relations, profit-interests and issues of justice, economic consequences and risk.

Against the backdrop of the outlined problem, the request for new ways in science communication is not easy to fulfil. How can science communication be organized without falling back on a style that has been criticised as deficit model earlier on? It is argued in this paper that this is possible through job related continuing education (further training). A few accounts can be given why job related continuing education is understood to be a suitable framework to overcome the obsession with the acceptance problem and communication forms of the deficit model type.

The firsts reason that favours job related continuing education is the fact that relationships to action are perfectly given. Vocational activities provide educational processes with relationships to action in a way in which they could hardly be established elsewhere. A precondition, however, is a precise definition of the respective target group. For the case of genetic engineering this means to identify groups of a profession which have to work with applications of genetic engineering directly or indirectly (farmers, health providers, teachers etc.).

Organizing science communication on the organisational basis of job related continuing education one could benefit from the advantage of homogeneous target groups. Such target groups are significantly different from what is often called “the public at large”. Developing an idea of who should be addressed is profitable in any case. Experiences have shown that events addressing a specific target group are much better attended in comparison to events which unspecifically invite everybody.

Continuing education is characteristically organized in the framework of small or medium settings. From a didactical perspective such events usually combine lectures and discussions. Even though more generalisations can't be drawn on the didactics of continuing education since a wide methodical variety is employed, the interactive character remains elementary for continuing education.

## Conclusion

This paper took its point of departure in the democratic aim for more participation through science communication. The proposed way—focussing

on learning processes relevant to action—has been formulated against the backdrop of a critique on the common practice in science communication which in social science literature has been described in terms of the so called deficit model. Summing up it can be said that the integration of the topic genetic engineering within the field of continuing education can be understood as a meaningful approach, not least because in this way perspectives for participatory science communication can be explored, too. However, it should be pointed out that associated measures in continuing education also need proper framework conditions and adequate financial backing if they are to be put into practice in a meaningful and valuable way.

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