The Multicomponent Scheme of Scientific Communication as a Social Institution Research

According to well-known definition, the term “scientific communication” refers to the exchange of information and ideas among scientists in their roles as scientists. The established forms of scientific communication constitute social institution of scientific communication. The term “institutionalization” here means the process whereby structures and procedures take shape and become regularized.

Nowadays scientific communication system tends to become global, but its significance for every single country is high enough too. The subject-matter of my research concerns scientific communication system in Ukraine. The post-Soviet countries undergo system changes under the influence of globalization processes in the field of science and communication, which makes this topic challenging.

One of the most important functions of communication in science as a whole is to achieve the main aim of science - to provide a cumulative record of the certified knowledge, which exists at any given point in time. Without such a record, it is doubtful if science could continue to develop as a viable system.

1. The historical analysis can give us much about understanding gradual institutionalization of scientific communication system. With the establishment of the academies in the seventeenth century, word-of-mouth exchange of information and informal meetings became very quickly supplemented by informal correspondence and exchange of letters concerning scientific work. Further, the latter were followed by formal journals containing the proceedings of meetings and other communications. The scientific enterprise of that era was too small to permit adequate communication on the basis of the small number of journals and the occasional publication of books, supplemented by face-to-face interaction and correspondence by letter. Now new technological means of information transmission (especially, the Internet) are changing all the scientific enterprise and starting a new era of scientific communication.

2. There are different channels with different functions performed by scientific communication. The scientific literature of science – primarily journals – constitutes the most important structured channel of communication within science. The degree to which a body of knowledge can be theoretically well-organized seems to influence the concentration of important information in specific channels (literature). And if so, it effects the efficiency of system institutionalization. Unstructured channels perform a lot of functions, which the structured channels fail to perform.

3. Our research scheme includes three major components: the functions of scientific communication (for scientists and for science in general); various channels through which communication flows; situational factors, which influence the relationships between channels and functions (e.g. scientists’ positions in the organizational structure, and so on). Proceeding from this synopsis, we propose the division of scientific communications into different types. There is scientific communication as such (communication of scientific information: ideas, methods, techniques, research results and so on), organizational communication (communication about communication: where and how scientific communication is expected to flow – e.g. information about conferences, publication requirements), ritual forms of scientific communication, supportive communication and external to scientific field communication (the last means transmitting information to/from other social institutions and public).