Parallel Session 16: Are Internet expectations being accomplished?

SCIENCE, SOCIETY AND INTERNET IN POLAND.

WHAT ARE DOING POLISH SCIENCE INSTITUTIONS FOR INTERNET SCIENCE COMMUNICATION WITH THE DIFFERENT GROUPS OF THE PUBLIC?

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Abstract

WWW services of scientific institutions have become a communication platform with different groups of audiences. The each of them: scientists, students, science journalists, government, industry, teachers and wide public have their own reasons to look for information and dialog. It is the question if the services may be joined with the different needs of the different groups?

The content analysis of Websites services of all public scientific institutions in Poland: universities, Polish Academy of Science and R&D institutions were the main method used in the research.

The results may show, the most important group of audiences of the universities' WWW services are: students and scientists, of PAS: scientists and industrial organizations and of R&D institutions - industrial organizations mainly. There is little information straight addressed to the wide public, no information for teachers, science journalists. The results may also show, inside the services there are too little activities for *public understanding of science and technology*.

Key Words: Scientific Institutions, Public, WWW Services, Poland

Introduction

It is a fact that, both the Internet that is generally accessible for senders and receivers of scientific communication and the technology development raising the quality of World Wide Web services, caused that the dialogue of the science and the society in the Polish digital environment has no more the testing capacity. The age of the thoughtfulness of the services quality and making them the platform of communication for any group of users that belong to scientific institutions environment, begins.

In Poland there are three types of public and research institutions that are bound by particular ministries, such as the higher education institutions [U] conducting educational and research activities (103 institutions and 100% has the WWW service), the institutions of Polish Academy of Science [PAS] conducting scientific activity (87 institutions and 98% has WWW services) and the Research and Development institutions [R&D] centred on research activity and the practical use of results of the researches (236 institutions and 72% with the WWW services).

The analysis

The aim of the analysis is to receive the answer if the scientific institutions communicate with all groups of users using the WWW services. The types of users are scientists and students; institutional and individual customers of the products and services, including the knowledge based enterprises; science journalists; people interested in science that are teachers, young people and children; wide public for whom the results of research could be useful for everyday life and the foreigners.

The questions asked in the analysis were:

Q.1. What groups of customers are distinguished in the WWW services and which are preferred? What are the differences in communication between scientific institutions, educational and scientific ones and between scientific research institutions and the public ones?

Q.2. What type of information that is the results of scientific research is addressed to each group of users?

Q.3. Is the communication bilateral or is the unilateral? What are the forms of communication used in Websites services?

Methodology

The content analysis of Websites services for all public scientific institutions with the use of questionnaire was the main method of gathering the data in research. The content analysis had been also used in similar research before [see References]. The websites representing the whole entity such as the home pages of general institutions and the interdisciplinary departments web sites were analysed in services, but without the WWW pages of faculties, institutes, chairs and departments. The author carried the research personally between October and December 2003. Generally the 1893 web pages were analysed. The questionnaire contained the users with the type of information addressed to them and the forms of electronic communication with the representatives of particular groups. The analysis of the data was carried using the statistic method.

Results

Q.1.

The priority group of users in the WWW services of analysed scientific institutions are [see Chart 1] scientists and students: 83% of all services have the information presented on the libraries and the scientific publishers websites and addressed to that group. Then 32% of services present information dedicated to products and services customers. 28% of information is addressed to people interested in science, 12% to wide public, 11% to foreigners and 2% to science journalists.

The higher education institutions address information in following proportions: 92% to scientists and students, 33% to teachers and young people, 13% to foreigners, then 5% to customers, 3% to wide public and 2% to journalists.

The institutions of Polish Academy of Science recognised as their priority groups the scientists (93%), customers (29%), young people interested in science (23%), wide public (16%), foreigners (9%) and science journalists (1%).

The Research and Development Institutions recognised as the main and most important groups of users their customers (74%), scientific environment (65%), people interested in science (34%), wide public (17%), foreigners (12%) and science journalists (3%).

Chart 1
Representation of information in WWW services addressed to different groups of users
in different types of institutions
the data are in percentages (%)

□ all institutions   ■ universities   □ Polish Academy of Science   □ R&D Institutions
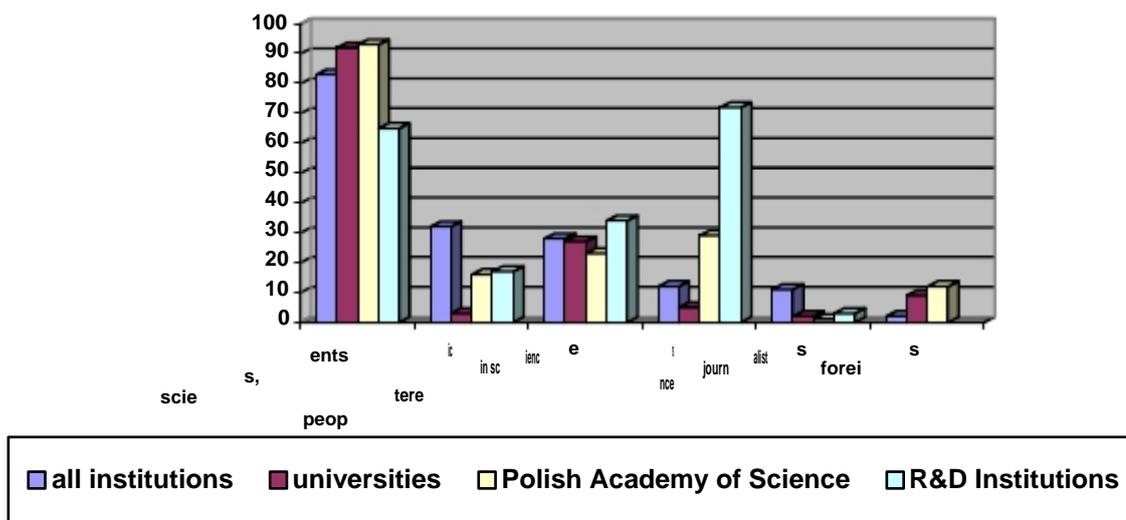
Q.2.

The analysis showed that the following types of information are addressed to particular groups of audience:

- Academic environment (academic staff, scientists, students): information about research (89%-R&D institutions, 87%-Polish Academy of Science, 71%-universities); bibliographic information about research record (79%-PAS,65%-U,62%-R&D institutions); special scientific bibliographies; library online catalogues (91%-U,45%-R&D,39%-PAN); information about scientific events (25%-PAS,12%-U,11%-R&D); electronic publications, factographic databases (19%-PAS,16%-R&D,12%-U); scientific services for selected knowledge domains or issues (15%-U,6%-PAS,5%-R&D); scientific publishers catalogues (92%-U,73%-PAS,67%-R&D);

↕ Institutional and individual customers of the products and services such as catalogues of products (77%-R&D,5%-PAS,0%-U) and the services offer (54%-R&D,29%-PAS,5%-U);

↕ Wide public: the service for scientific findings (5%-U,4%-PAS,2%-R&D); popular services for scientific methods for study the world, such as astronomy service (11%-PAS,9%-R&D,1%-U); information service for selected issue, e.g. environmental protection or health protection's services (34%-R&D,33%-U,23%-PAS); databases (16%-R&D,11%-PAS,9%-U); information service for public use, e.g. meteorology's service, maps of forests fire danger (17%-R&D,16%-PAS,3%-U);

↕ Science journalists: press room (3%-R&D,2%-PAS,1%-U);

↕ Foreigners: the co-operation offer or the utilization of the research results offer-using products and services is presented in English (13%-U,12%-R&D,9%-PAS).

Q.3.

Presentation of information is the beginning, encouragement, and the attempt to interest the user the selected issue, curious because of the young people or hobbyists interests. However, the real co-operation begins when the invitation to discussion is received, when the information is exchanged or if there is a willingness of the experts employed in scientific institutions to answer the question and when the young people are engaged in participating in projects popularising science and knowledge. The following groups are invited to dialog via different forms:

↕ Academic environment: e-mail (8%-PAS,7%-U,4%-R&D); discussion lists (3%-PAS,2%-U,1%-R&D); the invitation to participation in discussions for academic staff and/or students (4%-U);

↕ Products and services customers: e-mail (33%-R&D,29%-PAS,5%-U); FAQ (13%-R&D,2%-PAS,1%-U); newsletter (6%-R&D,4%-PAS);

↕ Wide public: e-mail (5%-R&D,4%-PAS,2%-U); discussion lists (2%-R&D,1%-U,1%-PAS); FAQ (3%-R&D,2%-PAS,1%-U); science knowledge competitions for young people (3%-PAS,3%-R&D,2%-U); newsletter (1%-PAS);

↕ Science journalists: press room (3%-R&D,2%-U,1%-PAS);

↕ Foreigners: e-mail (12%-U,12%-R&D,9%-PAS).

Conclusions

↕ The access to scientific information for academic environment is accommodated satisfactorily thanks to professional libraries activities (especially the higher education institutions libraries stand out among all higher institutions);

↕ Institutions, that are concentrated on research and development activities address information particularly to potential users;

↕ Science journalists, even the intermediaries in scientific knowledge communication to wider users environment, they are unfortunately nearly omitted in WWW services.

↕ The appearance of the websites in English and the information addressed to foreigners indicates that the educational and scientific co-operation with other countries is revealing now;

↕ The wide public such as young people, teachers, hobbyists, people interested in science are more and more often visible in the services as the very important group of users. Statistically the few number of services addresses the information to such groups, but the large and supple institutions that boasts the scientific achievements employing the scientific authorities serve them setting the examples. Mainly, the astronomy and the physic are the issues of the services;

↕ More and more often the information useful in everyday life, following the research, reliable, appears in WWW services. The only source of such information is scientific institutions. The environmental protection and the health protection are the mainly issues of the services;

↕ Generally the Polish scientific institutions' websites use the interactivity of the Internet to a little degree. The dialogue is carried using the e–mail as the simplest form.

References

1. Broichhagen, Kerstin (2002). Wissenschaftskommunikation online. Online untersuchung zur Dienstleistungsorientierung wissenschaftlicher Einrichtungen via Internet. Köln: Research goes Public. Retrieved October 10 2003 from http://www.research-goes-public.de

2. Bruns, Thomas; Kruggel, Markus; Marcinkowski, Frank (1999). Die Kommunikationspolitik deutscher Hochschulen im Internet. 1. Das Angebot. Eine Inhaltsanalyse von 176 Hochschul-Websites. *Pro online papiere* 1/1999. Retrieved October 10 2003 from http://pro-online.uni-duisburg.de/

3. Duke, Shearlean (2002). Wired science: use of World Wide Web and e-mail in science public relations. Public Relations Review 28, 311-324

4. Lederbogen, Utz; Trebbe, Joachim (2003). Promoting Science on the Web. Public Relations for Scientific Organisations – Results of a Content Analysis. *Science Communication* 24(3), 333-352