

Parallel Session 16: Are Internet expectations being accomplished?

WHEN SCIENCE GOES PUBLIC ON THE WEB - AN ANALYSIS OF THE ONLINE PR STRATEGIES OF GERMAN UNIVERSITIES AND RESEARCH ORGANIZATIONS

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Abstract

The surge of interactive media and the Internet has posed particular challenges to universities and research organizations in Germany. The virtual space of online communication has given them access to an entirely new form of publicity, enabling them to make use of a communication forum received worldwide, with its own structure, topics, means of communication, and interests. But are German universities and research organizations prepared for these challenges? Which public relations strategies have they developed, and do their offers on the Internet meet the demands of target groups? What kinds of opportunities does multimedia communication provide for enhancing the dialogue with the public?

This paper introduces an integrative study that was undertaken at the Free University of Berlin. It consisted of several parts: a written investigation of suppliers of science information, two online surveys aimed at the users of science news and information, and, finally, a content analysis of the websites operated by German universities and research organizations. The research objectives formulated in each partial study were overlapped somewhat, which made it easier to relate the respective results to each other. We were, for instance, able to compare the deliberations of suppliers and users with the results of the content analysis. The studies' overall objective is to do the groundwork for the development of popular science communication on the Internet by means of analyzing empirical data, which will in turn provide a basis for practical, relevant concepts.

Key words: Internet, Science Communication, Public Relations, University, Research Organization

Introduction

A society that considers knowledge and science its most important fundamental resources needs new ways for producers and consumers to exchange knowledge. Here, the Internet is on the way to becoming one of the most important communications tools. Almost all German universities and a

large number of research organizations have their own Internet sites. The flexibility of the Internet and the many ways of combining its technologies has led to many different types of use. These institutions do not simply use their websites to provide information about their spectrum of services and achievements. Social dialogue is being sought on an increasingly frequent basis. This has not been completely voluntary, for currently in Germany, discussions concerning academia and the public are marked by worry about the loss of trust in academia, its lack of legitimation and acceptance in society, and, last but not least, continuous financial woes.

This study analyzes the Internet PR activities of German universities and non-university research organizations. It also suggests strategies for an integrated online PR concept. The investigation deals with a series of issues in research, which will be briefly examined here.:

Results

Research question one:

Universities and research organizations must communicate their operative and strategic goals in various arenas: in market communications, in competition with other academic organizations; in public relations in social and political fields; and in internal communications involving the organization's own members and committees. How is it possible to apply familiar PR theories to both the university and the academic organization, and to continue to develop online communications?

In developing PR theories, two significant influences are: (1) social and organizational theory and (2) marketing theories for another. The strengths of the individual approaches are connected with serious weaknesses, however. Economic approaches to public relations largely disregard communications studies and issues. At the same time, communications studies and sociological theories ignore many economic and political organization factors.

Universities and research organizations must communicate their operative and strategic goals in various arenas. Therefore, a more comprehensive theoretical approach is necessary here. *Zerfass* produced such an approach in 1996, with his "Grundlegung einer Theorie der Unternehmenskommunikation und Public Relations" [Establishing a Theory of Business Communications and Public Relations]. An action-oriented concept of public relations, *Zerfass's* approach bridges social theory, communications, and economics.

Pragmatically speaking, internal communications, market communications, and public relations are distinguished by their divergent problems. While economic theory positions these three things in a hierarchical order, *Zerfass's* theory regards them as equal. Instead of being nothing more than a subordinate element in the marketing mix, public relations are an equal, supporting element of organizational communications.

Universities and research organizations must achieve recognition on national and international levels, develop their profiles, and specify goals. In this sense,

they must conduct themselves as “businesses.” They must communicate their operative and strategic goals in different arenas. For one, they have to pursue market communications in competition with other academic organizations. They also have to practice public relations in the social and political fields, and take care of internal communications for their own organization. Seen from these standpoints, business communications theory can also be applied to universities and research organizations. Public relations can only succeed in universities and research organizations if PR is included in the institution’s overall concept. Online communications is an increasingly important fundamental element of an integrative overall concept.

Research question two:

Scientists and scholars are called upon to inform the public about their work and to legitimize it in society by allowing the public to view it. This is not simply about gaining acceptance or polishing one’s own public image for political purposes: it also involves the critical dialogue between academia and the public. How does academia communicate its knowledge both in and outside of the scientific community? What role does science journalism play? How does the public perceive academic studies? What is the difference between science journalism and science PR? What kind of communications strategies, goals, and themes are used in PR at universities and research organizations outside of the university? What does the German PUSH program contribute to the dialogue between academia and the public?

This research question addresses the perspectives of those disseminating scientific information, as well as those of its recipients. Five perspectives were selected for investigation, and the following results were achieved:

1. Communication in the Academic System

Scholars depend upon communication within the scientific community when they want an overview of the current state of research in their field of expertise, or when they want to comment upon or judge their colleagues’ work. Many scholars are now accustomed to using the Internet as a source of data and literature, as well as a place to present their findings. At the same time, the Internet is used as an investigative tool for scholarly research purposes.

Scholars are now able to draw attention to their research and reach interested parties in their fields of expertise and disciplines much faster than before. They are also able to reach a broader audience. Moreover, it should not be underestimated how much the Internet, as a public tool, is able to attract the public’s attention to academic studies. The scientific paper published on a university’s or research institute’s Internet page is, at the same time, “PR” for its scholars’ work and for the institution. Many scholars are still unaware of this public platform.

Scholars primarily use the Internet for interpersonal communications, most often via the mode of communication known as e-mail. Other possibilities of communicating over the Internet (chatrooms, computer conferences,

newsgroups, and discussion groups) play a less important role in the scientific discourse.

The greatest reservations toward publishing online have to do with the habits of the scientific community. Currently, arguments in favor of online publishing, which cite speed and cost effectiveness, still have an uphill battle against the reputation of the traditional forms of publication, as well as their academic and sociological functions.

2. *Scientific Expertise*

As an expert, the scholar's opinion is requested, whether the issue is the implementation of knowledge in decision-making processes, analyzing situations (judging risk), forming opinions, or developing solutions for problems. Citizens have a strong need to participate more in making decisions. Therefore, there must be more of an effort to include the public in the development, evaluation, and application of scientific knowledge – to enter into a dialogue with the public. Here, the Internet provides more chances for communication.

An organization, which in the meantime counts 460 universities and research institutes as members, is known as the *Informationsdienst Wissenschaft (idw; Scientific Information Service)*. This group helps print, television, and radio journalists research scholarly topics.

One model that has been successful in conveying scientific, psychological, sociological, and medical knowledge from experts to citizens is the *Krebsinformationsdienst (KID; Cancer Information Service)* in Heidelberg. Their use of the World Wide Web to distribute information has allowed them to reach an audience that could not be attained through other media. Chatrooms, discussion groups, and e-mail can reach previously unheard-of numbers of new target groups, independent of place, time, and national boundaries.

This concept of transferring knowledge via user-focused dialogue also works for other academic themes. Successful examples are *ScienceLine* and *ScienceNet* in Great Britain. A small team of young scholars at the *Broadcasting Support Services (BSS)* operates this service. They research, make phone calls, and publish individual answers to questions on the Internet. Some of their sponsors include the large television channels, museums, the *Novartis Foundation*, and the *Wellcome Trust*. Currently, Germany is still lacking this kind of collective action on the part of its universities and research institutes.

3. *Science and Media*

In order to do their jobs successfully, journalists – especially science journalists – take on the role of mediator. On one hand, they act as conversation partners for scholars, and, on the other hand, as critical observers of academia. In the best case scenario, the journalists themselves have some education in the particular fields in which they work, yet they also have the

ability to question scientific information and contexts and to represent them so that they are comprehensible and interesting to a broad public.

Many scholars see journalists in the role of “information mediator,” treating public relations work and journalism as if they were the same thing. Very seldom does one hear of the critical, guiding functions of science journalism. Furthermore, the problems academia has in transmitting information and gaining public acceptance is explained away as a problem of science journalism: it is journalism that has trouble transmitting information and gaining public acceptance.

Criteria selected by journalists are criticized, especially reporters’ permanent focus on the newsworthiness of topics. Apart from a small amount of information concerning audience numbers and attention span, little else is known about how useful and effective science journalism is for the public. There is a great need for more research here. Research question three deals with the user data retrieved from this integrative study.

In the meantime, a series of investigations proves that public relations determine the themes and timing of reports in the media. Public relations officers of universities and research institutes estimate this sector to make up sixty to ninety percent of all reporting. This makes it quite clear how very influential public relations are – since they determine which scientific themes and experts are ultimately represented in media – and how very dependent the mass media are upon the public relations work done by the universities and non-university research organizations examined here.

4. PR Management in Universities and Research Organizations

Press and public relations offices at universities and research organizations fulfill three functions: they are seismographs measuring the transference and mediation of changing states of affairs. They are also communicative mediators between academia and the public, and, last but not least, they represent the interests of their own institutions.

Whereas there have been several studies of universities’ public relations work, there are no comparable studies providing information about the communications strategies, communications goals, relevant target groups, and topics covered by non-university research institutions. Since this type of information is an important requirement for any investigation of the online activities of universities and academic organizations, the information was derived from a preliminary empirical study. The most important conclusions, which apply to PR management at both universities and research organizations, are once again summarized here:

At the universities, public relations work is almost entirely centralized, but at non-university research institutions, it tends to be decentralized. Ninety-seven percent of the universities and seventy percent of the research organizations examined here have a press office. The average number of press office employees at the universities is 1.7; at the research organizations, the average

is 1.9. Almost one-third of the universities do not even have a full-time employee in the press office.

Although twenty percent of the universities and thirty-one percent of the non-university research organizations have in the meantime developed a marketing concept, only twelve percent of the universities and twenty-nine percent of the research organizations have a communications concept.

Due to increasing competition and limited resources, the most important communications goal for universities and research institutions is to improve their profile and increase their recognition factor.

Active PR work focused on the principles of improving profile, competition, and transparency must fulfill different functions. However, only forty percent of the universities and fifty-one percent of the research organizations believe that the work involved in organizing the public dialogue is complete. Universities are mainly concerned with providing information about instruction, study programs, and research activities, while research organizations provide research information and facts. Seventy-two percent of the research organizations believe that improving public understanding of science will be an important task for communications in the future.

Media and potential students are particularly important target groups for university public relations; research organizations are interested in reaching a public made up of their peers in the scientific community.

The wide variety of communications tools is remarkable. Universities and research organizations send out large quantities of press releases. Only the information available in the Internet is considered by the research organizations to be more important. Corporate design plays a larger role in the non-university research organizations than it does in the universities.

Up until now, there has hardly been any kind of evaluation of the effectiveness of public relations work.

The barriers to communication that exist between scientific and non-scientific cultures are also mentioned. If their press and public relations work is to succeed, universities and non-university research organizations must take these barriers into consideration.

5. Public Understanding of Science – The Scientific Community in Dialogue

A society that considers knowledge and science its most important fundamental resources needs new ways for producers and consumers to exchange knowledge. While the concepts of popularization, explanation, and mediation of science are based on the claim that they will allow the layperson a better understanding of science, continually growing segments of the public are no longer satisfied with the role of passive listener. Journalists, too – such as science journalists – who, for a long time, were solely occupied with gaining public acceptance for science, are no longer content to simply act as a conduit for scientific knowledge and claims. Critical dialogue is in demand.

In May 1999, after several years of discussion, top representatives of German academic groups from the Stifterverband für die deutsche Wissenschaft spearheaded a PUSH organization. PUSH is an acronym for “Public Understanding of Sciences and Humanities.” Initiators signed a memorandum calling for a stronger dialogue with the public. In the following years, the foundation announced the start of “PUSH – Academic and Social Dialogue” programs, which would each be funded with 250,000 euros. Soon, however, the dialogue metaphor came under critical fire. Were scientific organizations really interested in critical dialogue between the scientific community and the rest of society, or simply in gaining acceptance – mere image polishing? If not, then support would not just be in the form of informative events for the public, but efforts would also be made to strengthen the sensitivity of the scientific community for the public.

PUSH’s innovative contribution in Germany is certainly based in the motivating power that brought together experts and non-experts. Universities and research organizations can help solve complex problems by making more efforts to allow the information and knowledge available to their own institutions to be utilized in community processes of making decisions and shaping opinions.

Research question three:

Interactive PR employs new channels to open up technically mediated dialogues with community target groups (e-mail, newsgroups). It makes it possible for communications partners to call up specific electronically distributed information (WWW, CD-ROM), and it can support PR management. Which tasks and goals do universities and research organizations pursue with their online presence? Of what use is the information to the recipients, and what are their demands?

Universities and research organizations use their online sites to represent themselves in cyberspace, to increase their name-recognition around the world, pursue image politics, and support dialogue with target groups. Currently, all German universities and ninety-nine percent of the research institutions are represented in the Internet. However, there are enormous differences among the sites. Whereas the main pages of the universities and research organizations are often several hundred to several thousand pages long, other top German research institutes make do with a short description of their field, a reference to the institution’s address, and an e-mail address to contact.

1. Image – Corporate Design

In almost all of the university Internet sites investigated, a uniform image is – at the most – recognizable on the central pages published directly by the university administration. On the department level, including the institutes and research groups, “chaos rules.” Often the pages cannot be identified as part of a university site. The *Fraunhofer Gesellschaft* institutes and most of the institutes at the *Max Planck Gesellschaft* place more value on a uniform external image, using the same typography, colors, and logos. On the pages for

the institutes of the *Wissenschaftsgesellschaft Gottfried Wilhelm Leibniz*, the coding was not always visual, and the contents did not always make it clear that the various pages belonged to the same institute.

2. Responsibility for the Internet Site

Responsibility for the online presence of universities and research institutes is of strategic importance. The responsible party ultimately influences the concepts and contents of the site. A good case can be made for assigning this responsibility to the press office. It makes a great deal of sense if the press office is regarded as the leading communications office for the organization, and the Internet as a tool for public relations work. A large number of universities and research organizations have in the meantime hired "Internet officers," some of whom, however, work independently of the press office. For the reasons outlined above, they should be working for the press and communications office.

The investigation also showed that, at some universities, the chief responsibility for the Internet site lay with the data processing department. This might have been the right place in the beginning, due to the many technical problems. With a view to communications, however, this decision should be reconsidered, as there is a danger that technical skills might be more highly rated than content.

3. Desired Target and Dialogue Groups

To have an efficient PR strategy, it is essential that communications be focused on particular target groups. Of course, various communications partners have different expectations and want them to be specifically addressed in the Internet. The study shows that, up until now, universities and research organizations barely take advantage of the Internet as a PR and marketing tool. This becomes clear in the way target groups are defined and addressed.

Pre-existing and desired target and dialogue groups are ascertained by surveying the press offices and analyzing the contents of websites. Comparison shows that there is still a wide gap between wishes and reality. On the university sites, students and scholars were overloaded with information, whereas there was a lack of information for journalists. On sites belonging to non-university research organizations, there is need for great improvement in the information available to scholars, students, and journalists alike.

Finally, the user survey also showed which main groups use the sites belonging to the universities and scientific organizations. The scientific community itself is in first place (forty-one percent), followed by secondary school and university students (thirty-seven percent), journalists (fourteen percent), and companies (two percent).

4. Tasks and Goals of Online Communications

Until now, the public understanding of science and humanities has been of secondary importance to the universities. To the research organizations, it is still the third most important reason for maintaining an Internet site, preceded by the presentation of the institution and information for potential employees. The investigation revealed that only five percent of the sites operated by the top research institutions advocate public understanding of science and humanities and publish information specifically for an interested lay public.

As far as Internet communications are concerned, press offices consider their primary tasks to be publishing press releases, administrating the institutional and departmental websites, and presenting courses and research projects. In addition, the survey made it clear that for instance, not only journalists avail themselves of press information. This information fulfills the main criteria desired by those who use the websites: it is current, understandable, and above all, prepared according to journalistic standards.

Whether scholars, secondary school students, university students, or companies, many target groups regard the press office pages as an information point, where they hope to find current, well-prepared, and understandable information on their topic or problem. This supports the idea that universities and other scientific organizations should maintain extensive, well-prepared services in a central place – for example, in the form of a current news magazine on the home page.

Altogether, it is clear that until now, university and research organizations' Internet pages have only minimally contributed to scientific communication with the public.

5. User Needs and Internet Services

According to the wishes of users and producers, online sites should be “highly up-to-date.” The content analyses showed, however, that only one percent of website contents fulfilled this wish. The fact that many documents were not dated was more frequently criticized than the fact that the dated documents were no longer current. Many documents are still current after six months. Results of studies carried out in fundamental research were valid for the longest periods of time. However, the reader should have the opportunity to see how much time passed while the research was carried out, reports written, and the results published online.

Another important criterion for academic pages in the Internet is the “comprehensibility” of the contents – a demand that also happens to be made across the board by scientists, journalists, students, and interested laypersons. Here, the situation of the websites investigated is not quite so dramatic. Even though only one-tenth of the online documents manage without scientific terminology, thirty-one percent of university documents or thirty-nine percent of research organizations' documents include explanations of such terms.

More than one-third of the users would like material targeted specifically for their groups. Companies and journalists value this service especially, because they want fast access to information. In the meantime, however, seventy-one

percent of universities investigated and sixty-seven percent of the research organizations offer this service on their homepages. Things are different on the pages and documents administrated by academic departments or labs. Only one fifth of the webpages administered by the research institutes contain target group information for users. The percentage increases to thirty-five percent on university pages, but employees and students still remain the chief addressees. As a target group, journalists are of almost no significance when it comes to the distribution of scientific information. For the most part, communications are meant for the scientific community.

Altogether, it is clear that users and publishers still have very different ideas about the ways the Internet is used and what the contents of webpages should be.

As more people increasingly turn to the Internet for information about scientific themes and organizations, this should play a more important role for those involved in public relations. Ultimately, each organization must bear this in mind, and develop and agree upon its own strategy. All of the schools, departments, and employees must work together. The positive effect of a homepage, no matter how well-made it is, will quickly dissolve when the information offered by the departments and research groups is not sufficiently tailored to the target groups, with a communicative, engaged approach.

6. Application of Participatory Elements

A society that considers its most important foundation to consist of knowledge and science needs new ways of sharing information between producers and consumers. Broad segments of the population are no longer satisfied with the role of passive listener. A critical dialogue is necessary. It is precisely in this area that online communication offers great advantages.

However, up until now, universities and scientific organizations have generally offered information that can be called up by the user, instead of elements that encourage dialogue. True, the user has the opportunity to call up information. But, apart from e-mail, there is hardly any other way of participating in decision-making routines through dialogue with the provider. The symmetric type of communication touted by public relations as ideal is seldom offered. Press office managers are completely aware of this shortcoming. It is necessary to keep looking for ways to create dialogue.

Research question four:

Communication with various social target groups means a multiplicity of communication forums and thus a multiplicity of integration strategies. Public relations can only be successful when it is a part of the overall concept. Seen from this point of view, how is it possible to develop an integrated online PR strategy for universities and research organizations? What standards should be taken into consideration for structure, content, and design of such a concept?

Online PR management strategy comprises different steps that correspond to the classic cycle of business management. It must be integrated into the

communications concept. Beginning with the formulation of communications goals, the analysis phase should at first systematically examine the network of relationships between academic organizations and external interest groups in society. Issue analysis (tracking themes) thus identifies relevant themes, and organizational analysis identifies the online PR potential of the organization.

In the process of planning, goals for online presence are formulated in agreement with the PR guidelines for scientific organizations. In addition, other kinds of communications tools must be tested, in order to see which can be used for the online site. During the operative planning phase, the dimensions of the Internet strategy will be transferred to real programs of action with regard to process organization, scheduling, and budgeting.

The final PR control will determine how many of the goals have been achieved through the actual communications activities. Simultaneous testing will continually control the process to see if it is necessary to redirect the goals or even rethink the entire communications process (PR controlling).

With just a few exceptions, universities and non-university scientific organizations have not had any goal-oriented strategies for their online presentations up until now, and so these control mechanisms are lacking.

Notes

ⁱ For the complete study, see Lederbogen, Utz (2004). *Wissenschaft im Netz. Analysen und Strategien der Online-PR von Hochschulen und Wissenschaftsorganisationen* [Science on the Web. An Analysis of the Online PR strategies of German Universities and Research Organizations]. Frankfurt am Main / New York: Peter Lang (in print).

ⁱⁱ Top representatives of German academic groups signed a memorandum calling for a stronger dialogue with the public. PUSH is an acronym for “Public Understanding of Sciences and Humanities.”

