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Science PR

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ABSTRACT **In the competition for reputation and resources, public relations (PR) has become increasingly important for scientific institutions. This article examines the legitimation function of science PR for universities and research institutions in Germany against the background of a controversial case of science PR. It illuminates the underlying reasons for the conflictual nature of science PR, proposes potential guidelines for its conduct, and delineates the boundaries to science journalism. Finally, it argues for placing trusting relationships at the heart of science PR.**

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Fabricating stories

"Scientific findings cannot be marketed like a campaign for purple yogurt" (wiwo.de, translated by the author).

This is how Uwe Kohrs, member of the German Council for Public Relations (Deutscher Rat für Public Relations, DRPR), commented on a case of science PR in 2020. The DRPR had reprimanded the social media agency *Storymachine* for damaging the reputation of the PR profession (drpr-online.de). What had happened, and why does it matter to science PR?

In 2020, the agency *Storymachine* was commissioned to produce a media documentary about an ongoing scientific study on COVID-19 which was conducted in the German district of Heinsberg. A team of ten PR professionals observed the research team, led by virologist Hendrik Streeck, produced images and accompanying texts, organized and reported at press conferences, and posted various materials on the research process and results on social media under the hashtag #heinsbergprotokoll (facebook.com; twitter.com). They claimed to employ a "journalistic approach" (as cited in meedia.de).

After Streeck and the Minister-President of North Rhine-Westphalia had presented the interim results at a press conference, critical voices were raised, questioning both the scientific quality of the study and the way it was communicated. Why were the interim results presented at a press conference that attracted a lot of media attention before the study could be critically discussed in the scientific community? According to an internal communication concept, the press conference was part of a communication strategy with different phases and objectives that the agency had developed prior to the study (capital.de). This concept indicated that a narrative had already been pre-formulated, including the message that the special situation in Heinsberg was representative for the overall population (drpr-online.de). Consequently, it might be inferred that certain results had already been anticipated before the study was conducted, which contradicts the idea of open research questions and their appropriate validation.

After investigating the case for several weeks, the DRPR deemed the agency's approach unprofessional and careless and called for a more neutral style of communication. In the light of the prevailing coronavirus crisis, the DRPR recommended a more sensitive approach to public relations and criticized that "scientific work was primarily used to participate in the expected high level of attention" (drpr-online.de, translated by the author). According to the DRPR, the agency's actions had contributed to PR being perceived as manipulative, thus reproducing a negative image of the PR profession that the council considered outdated (drpr-online.de).

Historical perspectives

This example illustrates the pitfalls of science PR, as pointed out by authors critical towards science PR who argue that an overemphasis on visibility and self-reference to one's own institution can jeopardize the integrity of scientific findings, leading to hyped results and a potential loss of quality (Weingart 2017, 114). Apart from crisis situations such as the COVID-19 pandemic, universities and communicators can find themselves in the same predicament in their everyday work: positive media presence may come at the price of downplaying "negative" outcomes like failed research projects or emphasizing non-scientific criteria such as applicability and marketability. This may result in a potentially biased public image of science and compromise trust in science if the strategy is revealed (Peters et al. 2008, 273).

The history of PR in Germany in general can be divided into several periods based on turning points in politics and the development of the profession (Bentele 2013, 221): The first press offices emerged in the mid-19th century in politics and business. After the Second World War, the PR profession developed rapidly under US influence, particularly in business, followed by a phase of consolidation from the late 1950s onwards. The period from the mid-1980s to the mid-1990s is characterized by a professionalization of the field and a growing number of PR departments in companies and organiza-

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tions. Globalization as well as the emergence of the internet and social media are the major current influences, enabling PR to communicate directly with its stakeholders.

By contrast, science PR in higher education developed rather late in Germany. The West German Rectors' Conference had been advocating for the establishment and strengthening of PR departments at universities in the Federal Republic of Germany since the 1950s. Nearly three decades later, in 1976, press relations were formalized, codified in the Framework Act for Higher Education, but subsequent action was still largely absent (Bühler et al. 2007, 25–28) and public science communication was—if at all—provided by science journalism. It was not until the 1990s, when science policy reforms put universities in an increasingly competitive situation (see ❇ Competition between HEIs) through business-oriented organizational changes and the establishment of a third mission, that investment in public relations departments grew significantly (Raupp 2017, 152). It should be noted that PR plays an increasingly important role at universities today. In 2016, a survey at 86 German universities revealed that, on average, there are 5.4 full positions in the central communications departments, and the trend is rising (Leßmöllmann et al. 2017, 20).

Marketization of science

While the competition of ideas has always been at the heart of science, the competition of organizations is a relatively new, politically driven phenomenon (Winter 2012, 23; see ❇ Competition between HEIs). Today, universities battle for funding and students in a highly competitive environment in which strategic communication and branding have become increasingly important. In addition, scientific institutions are constantly required to legitimize their activities and outputs to their "customers," the tax-paying public. PR formats have become standard in scientific institutions to achieve various goals, including recruitment, accountability, and funding (Borchelt and Nielsen 2014, 58). Image films and social media accounts are used to reach potential new students; glossy annual reports and press releases highlight the excellence and relevance of science that might attract funding organizations (see ❇ Funding Bodies). In this environment where reputation and funding are at stake, science PR has become professionalized and institutionalized (Schäfer et al. 2015, 21).

Definitions and conflicts

One way of approaching PR conceptually is to distinguish between four understandings: PR as communication management, persuasion, press relations, or legitimation (Hoffjann 2020, 21). In the context of this article, the legitimation function of PR—especially at the organizational and societal level—is central as the description of the competitive situation has shown. This understanding of PR

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also allows a clear distinction from sales marketing, whose function is to shape the relationship with customers—e.g., the consumers of yogurt—in such a way that the goals of the market parties are fulfilled in the best way possible (Hoffjann 2020, 114).

Raupp provides a definition of science PR that emphasizes the strategic orientation and legitimation function: "Strategic science communication is the intentional, internally and externally directed communication of science organizations (universities and research institutions) that serves to maintain and expand organizational legitimacy" (Raupp 2017, 149, translated by the author). Legitimacy is attributed by various stakeholders such as citizens, the press, funding institutions, the scientific community, and organizational members based on their expectations of the scientific organization (Raupp 2017, 150).

But does a scientific organization's science communication always have to be strategic? Conflicts can arise when the stakeholders have different, contradictory expectations of the scientific organization which has to juggle societal and organizational goals (Raupp 2017, 150–151): On the one hand, it has to secure its existence and therefore strives to consolidate its organizational legitimacy, for example through communication strategies. On the other hand, science is dedicated to the common good, to the pursuit of truth and objectivity. Research is guided by clear scientific standards, and conflicts can occur if science PR follows different principles. If expectations are disappointed, for example if PR campaigns exaggerate or embellish scientific findings, the trust in and the reputation of science as a whole can be affected, as the example of *Storymachine* shows. This configuration of differing goals places a responsibility on scientific institutions, compelling them to reflect on the ethical values and professional standards that should guide their conduct.

Challenging values

This critical reflection began after "a *heroic phase*" of science communication "in which *everything goes* for the sake of communicating science" (Bucchi and Trench 2014, 10). In response to the controversy surrounding *Storymachine*, the DRPR developed a specific guideline for science PR with a particular focus on factually correct and dialogic communication with the public (drpr-online.de). Given that scientific knowledge is considered "the organization's primary commodity" and "the university's most valuable storytelling content" (Autzen and Weitkamp 2020, 470), it is imperative to handle it responsibly and refrain from treating it as a consumer product, such as yogurt. A campaign for a new dairy product would likely praise its distinctive quality and flavor without conceding the existence of comparable alternatives on the market. However, when communicating new research findings, it is necessary to contextualize them by referencing the state of research and to acknowledge the contributions by other institutions, rather than solely focusing on promoting a favorable im-

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age of one's own "product" and "brand." Moreover, it requires the disclosure of uncertainties and the acknowledgment of shortcomings, which is relatively uncommon in marketing and corporate communication.

Other guidelines on science communication ask practitioners to adopt self-critical and self-reflexive attitudes and refer to basic values, including utility for society, independence, and the principles of good scientific practice (Medvecky and Leach 2019, 83–92; acatech.de; wissenschaft-im-dialog.de). The values in question also indicate a shift towards criteria for good journalistic practice in science communication which necessitates a closer examination of the complex relationship between science PR and science journalism (see ❇ Science Journalism).

Boundary lines

The conditions in the fields of science PR and science journalism are undergoing a transformation: While science PR has established itself, the influence of science journalism has declined to the extent that researchers speak of a shift in the balance of power in favor of scientific institutions (Autzen and Weitkamp 2020, 469). As economic pressures intensify and editorial offices downsize, the environment for high-quality, critical science journalism becomes increasingly challenging. This can be illustrated by examining a central PR format: the press release. The paucity of resources in editorial offices renders it more and more implausible that journalists will be able to undertake a comprehensive critical examination of press releases (Anhäuser and Wormer 2016, 94–95). This once again underscores the heightened expectations placed on universities' PR departments to disseminate accurate and reliable information which is increasingly reaching recipients unfiltered.

In terms of the function of criticism, while independent journalism can criticize practices at scientific institutions from a system-external perspective, institutional science PR faces boundaries: It is embedded in hierarchies and subject to specific norms that constrain its potential for genuinely independent and critical perspectives. How critical can an institutional PR department be towards its own employer, scientific staff, and colleagues' research? What happens if criticism is necessary to secure legitimation? Is it suppressed, accepted, or even invited in the respective organization? Further research on research institutions' organizational culture is needed to gain more insight (Raupp 2017, 157; Fecher et al. 2023, 10).

Managing the trust portfolio

Finally, the question arises how this complex mélange of different stakeholders and their expectations as well as the sometimes conflicting societal and organizational goals in the context of marketing and legitimizing science can be reconciled. One approach is the notion that PR in a scientific organization is "*managing*

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the trust portfolio – both for the organisation and for the scientific enterprise more generally" (Borchelt and Nielsen 2014, 59). The concept of a trust portfolio refers to the diverse relationships that exist between both the organization and science with their respective stakeholders.

Based on this proposal, managing the trust portfolio in science PR successfully means considering seven components: accountability, competence, credibility, dependability, integrity, legitimacy, and productivity (Borchelt and Nielsen 2014, 59). In addition, four different levels of organizational management must be aligned (Borchelt and Nielsen 2014, 65–66): At the program level, the focus is on individual PR activities such as media campaigns to increase public awareness of new research results or specific publications, measured by media coverage and public response. At the functional level, the university's PR department coordinates various communication programs, such as press relations, event planning, and alumni relations to maintain a consistent image and support the organization's strategic goals. At the organizational level, PR contributes to the institution's core goals, such as financial stability or attracting students and staff. The societal level involves PR professionals assisting their institutions in comprehending and fulfilling their social responsibilities, thereby fostering public trust in both the organization and the broader scientific enterprise. In conclusion, this concept highlights the importance of science PR for the legitimation and existence of scientific organizations and science in general.

Given scientific organizations' responsibility to communicate on different levels, it seems sensible to provide more detailed guidance for navigating the ethical challenges inherent in science PR practice. Core questions remain to be addressed by future scholarship: How are norms for good practice in science communication and PR developed, who gets to decide, and how can they be implemented? (Davies and Horst 2016, 95; tu-dortmund.de; Entradas et al. 2024).

References

ANHÄUSER, MARCUS, AND HOLGER WORMER. 2016. "Von der 'Pressemitteilung' zur 'An-alle-Mitteilung': Der Medien-Doktor PR Watch an der TU Dortmund." In *Gesundheitsforschung kommunizieren, Stakeholder Engagement gestalten: Grundlagen, Praxistipps und Trends*, edited by Antje Schütt and Wiebke Lesch. Berlin: Medizinisch Wissenschaftliche Verlagsgesellschaft, 87–97. doi: 10.32745/9783954663637-2.6.

AUTZEN, CHARLOTTE, AND EMMA WEITKAMP. 2020. "Science communication and public relations: beyond borders." In *Science Communication*, edited by Annette Leßmöllmann, Marcelo Dascal, and Thomas Gloning. Boston, Berlin: De Gruyter Mouton, 465–484. doi: 10.1515/9783110255522-022.

BENTELE, GÜNTER. 2013. "Der Diskurs über PR-Geschichte und PR-Historiographie in Deutschland und international." In *UnVergessene Diskurse: 20 Jahre PR- und Organisationskommunikationsforschung*, edited by Olaf Hoffjann and Simone Huck-Sandhu. Wiesbaden: Springer VS, 197–235. doi: 10.1007/978-3-531-19121-8_8.

BORCHELT, RICK E., AND KRISTIAN H. NIELSEN. 2014. "Public relations in science: Managing the trust portfolio." In *Routledge Handbook of Public Communication of Science and Technology*, edited by Massimiano Bucchi and Brian Trench. London, New York: Routledge, 58–69. doi: 10.4324/9780203483794.

BUCCHI, MASSIMIANO, AND BRIAN TRENCH. 2014. "Science communication research: Themes and challenges." In *Routledge Handbook of Public Communication of Science and Technology*, edited by Massimiano Bucchi and Brian Trench. London, New York: Routledge, 1–14. doi: 10.4324/9780203483794.

BÜHLER, HEIKE ET AL. 2007. *Hochschul-PR in Deutschland: Ziele, Strategien und Perspektiven*. Wiesbaden: Deutscher Universitäts-Verlag. doi: 10.1007/978-3-8350-9148-1.

DAVIES, SARAH R., AND MAJA HORST. 2016. *Science Communication: Culture, Identity and Citizenship*. London: Palgrave Macmillan. doi: 10.1057/978-1-137-50366-4.

ENTRADAS, MARTA ET AL. 2024. "The Communication Function of Universities: Is There a Place for Science Communication?" *Minerva* 62 (1), 25–47. doi: 10.1007/s11024-023-09499-8.

FECHER, BENEDIKT ET AL. 2023. "Balancing interests between freedom and censorship: Organizational strategies for quality assurance in science communication." *Science and Public Policy* 50 (1), 1–14. doi: 10.1093/scipol/scac043.

HOFFJANN, OLAF. 2020. *Grundwissen Public Relations: Ein Leitfaden für Studium und Praxis*. München, Tübingen: UVK Verlag. doi: 10.36198/9783838555072.

LESSMÖLLMANN, ANNETTE, CHRISTIANE HAUSER, AND THORSTEN SCHWETJE. 2017. *Hochschulkommunikation erforschen: Hochschulkommunikatoren als Akteure: Ergebnisse einer Online-Befragung - 1. Welle*. doi: 10.13140/rg.2.2.18289.28008. URL: https://www.wmk.itz.kit.edu/downloads/Zwischenbericht%20Hochschulkommunikation%20e.pdf (date accessed: November 1, 2025).

MEDVECKY, FABIEN, AND JOAN LEACH. 2019. *An Ethics of Science Communication*. Cham: Palgrave Macmillan. doi: 10.1007/978-3-030-32116-1.

PETERS, HANS PETER ET AL. 2008. "Science-Media Interface: It's Time to Reconsider." *Science Communication* 30 (2), 266–276. doi: 10.1177/1075547008324809.

RAUPP, JULIANA. 2017. "Strategische Wissenschaftskommunikation." In *Forschungsfeld Wissenschaftskommunikation*, edited by Heinz Bonfadelli et al. Wiesbaden: Springer VS, 143–163. doi: 10.1007/978-3-658-12898-2_8.

SCHÄFER, MIKE S., SILJE KRISTIANSEN, AND HEINZ BONFADELLI. 2015. "Wissenschaftskommunikation im Wandel: Relevanz, Entwicklung und Herausforderungen des Forschungsfeldes." In *Wissenschaftskommunikation im Wandel*, edited by Mike S. Schäfer, Silje Kristiansen, and Heinz Bonfadelli. Köln: Herbert von Halem Verlag, 10–42.

WEINGART, PETER. 2017. "Is There a Hype Problem in Science? If So, How Is It Addressed?" In *The Oxford Handbook of the Science of Science Communication*, edited by Kathleen Hall Jamieson, Dan M. Kahan, and Dietram A. Scheufele. New York: Oxford University Press, 111–118. doi: 10.1093/oxfordhb/9780190497620.013.12.

WINTER, MARTIN. 2012. "Wettbewerb im Hochschulwesen." *Die Hochschule: Journal für Wissenschaft und Bildung* 21 (2), 17–45. doi: 10.25656/01:16305.

Further Reading

Further reading is a section where each author makes recommendations for interesting publications that widen the scope of the respective topic or are particularly valuable for deeper research.

BORCHELT, RICK E., AND KRISTIAN H. NIELSEN. 2014. "Public relations in science: Managing the trust portfolio." In *Routledge Handbook of Public Communication of Science and Technology*, edited by Massimiano Bucchi and Brian Trench. London, New York: Routledge, 58–69. doi: 10.4324/9780203483794.

FECHER, BENEDIKT ET AL. 2023. "Balancing interests between freedom and censorship: Organizational strategies for quality assurance in science communication." *Science and Public Policy* 50 (1), 1–14. doi: 10.1093/scipol/scac043.

RAUPP, JULIANA. 2017. "Strategische Wissenschaftskommnikation." In *Forschungsfeld Wissenschaftskommunikation*, edited by Heinz Bonfadelli et al. Wiesbaden: Springer VS, 143–163. doi: 10.1007/978-3-658-12898-2_8.

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