DE GRUYTER MOUTON
DOI 10.1515/commun-2013-0001 — Communications 2013; 38(1): 1–12

Commentary and debate

Friedrich Krotz

Academic publications in the age of post-Enlightenment

Abstract: This essay deals with phenomena of the publication of academic work: the emergence of science slams, the transformation of open access and the role of the Social Science Citation Index. As a result of the argumentation it becomes clear that publication of scholarly work at least in part becomes an element of regulating academic work following interests which come from the outside. The question of whether a publication marks progress in communication studies is no longer in the focus of publication. This is why we speak of "post-enlightenment".

Keywords: publication, enlightenment, open access, university, science slam, SSCI

Friedrich Krotz: e-mail: friedrich.krotz@uni-bremen.de

1 ***

"A Science Slam is a scientific talk where scientists present their own scientific research work in a given time frame – usually 10 minutes – in front of a non-expert audience. The focus lies on teaching current science to a diverse audience in an entertaining way. The presentation is judged by the audience ... A science slam is a form of science communication" (Wikipedia, retrieved October 15, 2012 from http://en.wikipedia.org/wiki/Science_slam). The presenter of a science slam can do whatever she or he wants, provided that it helps the audience understand the presented results and that it contributes to the audiences' entertainment. So, one can use PowerPoint or not, speak about or even dance the results. Furthermore, science slams are organized as a competition: The audience, which may amount to 100 people who spend their evening with such 'entertainment', decides at the end who presented her or his research in the

best way. Science slams seem to be a German invention, but have spread out internationally in the last years.[1]

Of course, science slams raise a lot of interesting questions. Why do people spend their evening in such a 'funny' way, as presenters or as part of the audience? Does it mean that there is a new wave of interest for academic results in the world represented by the audience who came to hear about and understand them? Who are the scholars that are interested in explaining what they did in their academic contexts in an entertaining way to a general public, and which motives and expectations do they have? Also, are science slams a possibility to link learning and entertainment in a way that conventional professors would never think of, in order to free the universities from established forms of presenting their results only to other experts? Which types of research and results can be presented in such a way, and what does that mean for academic knowledge?

2 ***

COMMUNICATIONS – The European Journal of Communication Research has recently been accepted into the *Social Science Citation Index* (SSCI). This is said to be the most important index for social science journals, and thus, we can call ourselves an A-journal – the only one for communication and media studies based in Germany. Some of the conditions to be indexed by SSCI are that a journal is double-blind peer-reviewed, that it appears in a reliable way and has done so for some years, and that it is frequently quoted by other SSCI journals. In addition, it should be published in English, as in the British and American academic communities, who dominate the SSCI-ranked journals, only such journals are read. There are most likely additional conditions; however, the processes of becoming such a journal are not very transparent.

For each journal, the SSCI refers to databases in the so-called web of science, where the list of indexed journals and a lot of data about them can be found. One of the most important measures deployed here is the so-called impact index of an article which is based on the number of quotations of this article in all other journals that are indexed by SSCI. This impact measure of

1 If you would like to get an impression of how this works, go to YouTube and search for "science slam"; there are a lot of examples in different languages. Another interesting example can be found at http://www.scienceslam.org/content/vinay-rambal-do-two-negatives-make-positive. A winner's presentation, though in German, can be found at http://www.youtube.com/watch?hl=en-GB&v=xikg3ZNSYCk.

an article can also be used to determine the impact index of an issue of a journal by adding the weighted measures of all articles of this issue, and thus one can even compare all SSCI-ranked journals by their impact. In a similar way one can construct further indices such as the so-called Hirsch-Index which represents the influence of a scholarly author by using the results about the impact of her or his publications.

SSCI and web of science are not academically-controlled institutions but belong to Thomson Reuters, a media conglomerate that makes a lot of money with academic publications. For natural sciences, such science indices have existed since the end of the Second World War in 1945 as a service for all people, enterprises and other institutions interested in informing themselves about academic research, for instance in chemistry or the rapidly emerging medicine evolution at that time. Today, Thomson Reuters also owns a – or the – "web of knowledge". Evidently, this media enterprise knows how to give its web services impressive names.

With reference to the analysis of impact, Hirsch factors and other values, Thomson Reuters say on their website: "With Science Citation Index, you can: Find high-impact articles from peer-reviewed, influential journals. Uncover relevant results in related fields. Keep up with the latest developments in your field, helping you pursue successful research and grant acquisition. Identify potential collaborators with significant citation records" (retrieved October 15, 2012 from http://thomsonreuters.com/products_services/science/science_products/a-z/science_citation_index/).[2]

Measurements like those from Thomson Reuters may on the long run directly and indirectly change the academic world and work. For example, since COMMUNICATIONS has been indexed by the SSCI, the submissions of papers have doubled, even in the short time since we have got this status. The background of this development is probably that there are a lot of countries in which the measures of the SSCI count a lot for the individual career of a scholar and will also be used to calculate the value of her or his contributions to academic science. At the same time, all other publications do not count any longer: Writing books or contributing to edited books is becoming more and more a waste of time. And that is a problem for Universities and academic studies. A further problem is that the measurements of the SSCI only take into consideration those SSCI-indexed journals that quote a given article: The web of science is thus a

2 Further information can be found, for example, in an interesting article by Spanish colleagues who discuss the role of such indices (Castillo-Esparcia et al., 2012) and also the question why there are no Spanish-language SSCI-ranked journals of communication studies and what may be done here.

closed shop, and you may even be a second Einstein, but if you do not publish in the sphere of Thomson Reuters, this will not count for your so-called impact and thus for your salary or your further career. In addition, in order to be successful, elaborated strategies are necessary: Since only the frequency of citations in other SSCI journals is relevant but 'soft factors' are not, it may be helpful for your career to join groups of people who control SSCI journals and who mainly quote the other members of their group. It would also be helpful to write several shorter articles and not just one long one, and to do research on the respective mainstream paradigms, as this usually generates more readers and quotations, than to write a creative article about an uncommon topic of your discipline. Such a strategy may also be important for a SSCI-ranked journal in order to obtain a good overall impact factor. And finally, it is true that such an index may be helpful for a reader to identify good or even the so-called best results about a topic and refer to them, but it may also be misleading, if established professors defend their positions by using such a mechanism. It is even more problematic that such a measure thus disregards academic traditions: No real academic scholar can confine her- or himself to the optimal result, which is indexed best. Instead, he or she always has to have an overview of the whole field. This argument of Thomson Reuters thus only holds for highly selective users and for those who are interested in a ranking and not in a topic. Therefore, indexes like this one may be especially helpful for bureaucratic departments of universities or enterprises, public or government institutions to compare the work of academic scholars and in order to separate the good from the bad – in the above-defined sense. As a result one can say that a good idea from 1945 has now become an instrument of enterprises and bureaucracy used to put pressure on universities and individual scholars in order to give them measurable aims that may be controlled by bureaucracy and may be used for propaganda and advertisements. In consequence, one should publicly discuss the legitimacy to do that – of course, not the legitimacy of Thomson Reuters to construct such indices and to sell the databases, but the legitimacy of the bureaucracy of universities and governments to use such indices for decisions about universities and scholars. And we should consider why there are no indices like the so-called reputation index for a journal that was once demanded by academic institutions, in defense against the measurements of Thomson Reuters?

3 ***

In the last decades, the concept of *open access journals* has been debated in the academic field. The idea behind it is that results of theory building and

empirical research in the academic sciences, as far as they have been financed by the public, should be accessible to everyone and without readers having to pay.

Supporters of open access journals have proposed two ways on how to implement the idea (Arbeitsgruppe Open Access, 2009): The "golden way" provides that results of publicly financed research should be published directly in open access journals; the access to these journals is free, accruing costs must be paid by the authors. It is thus a reversal of the question 'who pays': In former times (and mostly, still today), the readers or the public libraries paid to buy the journal or the access to an article. According to the "green way", already-published texts may be published again in so-called repositories, which are organized and governed following the rules of open access. In this case, also the author will have to pay, if costs accrue. Today, these repositories are frequently financed by universities or other public institutions.

Thus, in these two cases, the author must not only write the article but also bear the costs or find an institution or enterprise willing to pay for her or him. Large research foundations like the public German DFG promote open access journals and expect that the receiver of a grant will publish her or his results in such a journal. But this is neither enforced nor controlled, and the grants one receives from such an institution do not usually include money for this form of publication. If a 'ordinary' German researcher had some money to spend, she or he would prefer not to use it for an open access publication but for a translation into English, which is of much higher importance for her or his career. For most scholars it is difficult to understand that they should pay for the publication of their work after having accomplished it. Also, for most funding institutions, it is difficult to understand that after having financed the work they should pay for the publication.

Nevertheless, the publishers of academic journals nowadays offer a service which leads to a mixed form of publication. This could be called a third way, maybe a "platinum way for publishers": If you as an author want to publish an article, say, in the European Journal of Communication Research, the editors, who are scholars, will initiate a double-blind peer review process with support of other scholarly experts. When the paper is finally accepted, the editors will, among other things, arrange for your work to be proofread by native speakers, which is generally financed by the hosting institution, mostly a university or an institute, but often also supported by the publisher. As a next step, the publisher is usually responsible for the printed and online publication of the article, with the latter being only accessible to subscribers. In this situation, the publisher offers the following service: If the author pays a fee for every written page to the publisher, his article will not only be accessible to the sub-

scribers of the journal or the users of public libraries, but it will also be published online and be accessible to everybody for free on the internet. This can be seen as a step towards open access, but it is also a good opportunity for the publishers to earn some more money. In general, as authors often do not have money for this process, consequently only those articles will be freely accessible on the internet which are funded by somebody, for example, an enterprise, a political party, a radio or TV station. Is this good for independent academic work?[3]

4 ***

These are three examples of how today's publication modes of scholarly-achieved research results have changed: first, publications issued by means of entertainment to a non-scholarly audience; second, publications evaluated, ranked and ordered hierarchically by commercial institutions based on criteria in the interest of non-academic structures; and third, paid-for articles that are distributed more widely than others. In all three cases, the publication does not necessarily contribute to the development of the discipline from which it derives, and the criteria of this discipline and the discourse of the specialists in this discipline are only helpful but not relevant to the way an article is published. Also, general interests of society are insignificant, for example, for whether an academic result is useful to democracy, social justice or an ongoing development of humankind. This is the reason why we here speak of a publication mode outside the traditional academic one and say that the scholarly publication system is biased towards what may be called a *post-enlightened publication system*.[4]

In the perspective of academic life, which started in the era of Enlightenment, publishing is the necessary process that comes after empirical research and the development of theory. Without a publication, empirical research and

3 Of course, I do not want to say that open access is a wrong idea at all or must fail. Nevertheless, it is not really clear to which problem this model provides a solution, and under which conditions it may work.

4 Of course, 'post-Enlightenment' needs more explication than what is possible here. In my opinion, some developments in the past have been helpful for the freedom of humankind; for example, the knowledge that rain does not come from God but that weather may be analyzed systematically. No doubt that a lot of academic knowledge of today is far from belonging to Enlightenment, as Adorno and Horkheimer explained. But this does not mean that Enlightenment is dead or that it does not matter which type of knowledge we need; it just means that science, scholarly work and academic knowledge have separated from Enlightenment.

theoretical work are senseless; publication thus is the third step to go forward. Only after the publication of any empirical result or any theory development, the academic society can decide whether the work of a researcher was correct or wrong and whether it was valuable and relevant or not. This happened in the past centuries, as Jürgen Habermas (1968) put it, by the discourse processes inside that academic community: Here, in principle, not money nor power and status are relevant, but the best argument.

Other fields of society are regulated by other principles, by markets, by status, money, or power. Yet, for scholarly work, it is essential not to be regulated by such principles, as this would disturb the credibility of academia, universities and science as a whole. Of course, also in the university system and the sciences, people with more power may hamper others with better ideas; for example, there may be professional arrogance or a newcomer's exaggerated opinion of him- or herself, but this is not possible in the long run, because otherwise the legitimacy of academia would suffer. There may be cases of results which do not get the appreciation they deserve, for example, because there is a change in paradigms in the sense of Thomas Kuhn (1978), but again, it is usually only a question of time until another researcher picks up a formerly helpful result. Thus, publication may happen by verbal presentations with or without PowerPoint, it may happen in a written form in letters as in former times or in peer-reviewed journals as it is the norm today, or in which way ever, but it must happen. It makes things known, it provides control of results, and it transforms universities and academic institutions into a network of knowledge and communication – which they must be in order to work.

Nevertheless, in today's post-Enlightenment era, the system and the ways of publication have entered a state of crisis, as we can see by the cases described above. In principle, there are *two developments that in the long run will change the academic publication system as a whole and in a fundamental way*: first, the common influence of the economy, bureaucracy and governments on the universities and academic life in general, shortly said, *the process of commercialization of politics and democracy, universities and society as a whole, which is already influential, as we have seen*; and second, the ongoing change of the media and communication by people using old media in new ways and also new media for old and new goals, which is called *mediatization process* (Krotz, 2009). While commercialization changes the role of publications in society and thus, eventually, the academic system of publications itself, mediatization opens the situation again by offering new ways of publication, but this should not lead to utopian hopes at all, and we do not know how this will end. Let us discuss this in more detail.

The influence of the economy, bureaucracy and governments on the academic system aims at transforming the universities into an effective producer of creative manpower, adjusted to the conditions of the predominating economic system, and also into an effective producer of knowledge that can be used by governments, bureaucracy and enterprises. In former times, scholarly works were published because there was a person who had something to tell others who wanted to listen to him or her. Today, academic publications are only allowed after a double-blind peer review process, which most of the times contributes to mainstream theories and mainstream results[5]. Together with the SSCI system of Thomson Reuters, this guarantees a hierarchical system of three classes: the SSCI publications as the first class, other peer-reviewed publications as the second class, and all other publications as the third. It is the universities' and governments' bureaucracies which warrant this system as they put pressure on academic scholars having to orient themselves towards it.

The institutions that profit from this change are the publishers. Traditionally, publishers of academic books guarantee the high quality of a book or an article by means of their reputation, which stems from their work with the text. This used to be implemented by the publisher himself and his staff. But in the case of current publications of peer-reviewed texts, it is the scholars themselves who are in charge of the processes of both generating and guaranteeing quality: Some organize the process of evaluation; others write expert opinions and make proposals in order to improve an article. Publishers today do often not even care whether there are spelling or grammar mistakes, and more and more frequently, composing or typesetting is done by computer systems or by people far away, for example, in India. This of course produces new problems, if they are not native speakers. While the authors and managing editors work voluntarily, publishers distribute and sell journals and books and therefore like to produce expensive hardcover editions that they can sell to libraries for a lot of money, while paperbacks would be much cheaper. Of course, this does not hold for all publishers, but for a lot of them.

As a consequence, it is the publishers who fight against Google and other actors in this field for their old privileges of holding the right to print and to distribute a book during the age of the internet, while academic scholars would have advantages, if other models were successful with which their ideas could be distributed much better.

---

5 Of course, this does not mean that double-blind peer review does not work and should be abolished. Double-blind peer review is helpful to get good scholarly articles, independent of who wrote them. But this does not solve all problems; instead, it also creates new ones. The production of more mainstream articles is one of them. In each case, this should be analyzed empirically and not just become influential by interest of the economy or bureaucracy.

In this context, we want to emphasize that because of privatized rights, for most students and academics the access to academic journals is only possible through public libraries. However, this type of institution is also under pressure today. It was a great (and, by the way, European) invention to create libraries which could be used by everybody. In the times of the Greeks and the Roman Empire, there was no public access to libraries; in the middle ages, books were monopolized mostly by the monasteries and the church. After the invention of the printed press, there was a short time where everybody could print and read everything (as far as he or she was able to read and write), but soon after, governments and the church started to censor. It was in the spirit of Enlightenment that the invention of public and university libraries that could be used by everyone took place, which was of great importance for the development of knowledge and science, democracy, and civil society (Stein, 2010). Today, we are once again in an era where knowledge is privatized: Publishers like to sell the content of books or journals article by article to interested institutions or people, Google tries to control the whole human cultural heritage and hands it back to the people hidden in endless lists of marketing-oriented information, and Amazon, Apple and others are in competition to control people's reading by using specific software formats for tablets and e-readers and by fighting for privatized rights of printed or electronic textual matters that exclude all others. To counter these developments, we need new laws today: on electronic publications, against all those internet giants who try to monopolize written texts, and to force publishers to give back the rights on printed matters to the authors after some time, if they do not publish further editions. Additionally, the public libraries need financing in order to help everybody get free access to all information (cf. also Nix, 2012).

These ideas and relations about problems of scholarly publishing take us to the other above-mentioned process, the so-called mediatization that will, in the long run, force universities and publishers to reinvent themselves as actors in a new media environment. Mediatization means that people and institutions communicate at more and more opportunities in more and more different forms using more and more media which are changing and differing (Lundby, 2009). The mediatization approach then asks for theories and descriptions of these developments and especially for the consequences on people's everyday lives and the changes in culture and society.

It is well known that these processes also include changes in the publication of academic content, as there are new forms such as academic blogging and portals set up for knowledge transfer. There may also be new interest in academic results of research as, for example, the above-described science slams show. These and other inventions and developments may be helpful for aca-

demic communication. It is also evident that more and more academics publish their results individually on the internet in order to distribute their ideas and that more and more academic journals come into existence – mostly rather specialized and as a journal for small communities, whether they are small by topic or by language, and often exist as online journals.

These developments probably reflect the interests and wishes of the academic scholars. Nevertheless, this is not a reason to think that the internet improves things simply by technology. Technologies are opportunities that can be used in different ways. The question is whether these new forms of publishing will last for a long time or whether they will be swallowed by other developments, for example, developments driven by economic constraints and interests. The internet as a new technology led to a lot of small initiatives in different fields, an observation that also applied to the invention of the printing machine or the radio. In the latter case, for example, a huge amount of radio initiatives came into life which distributed music and information; but rapidly, governments and the economy started to control this development and by law and economic constraints transformed radio from a medium of participation into a commercialized and/or state-controlled instrument. The same may happen to the internet, if we do not take care, since a lot of grassroots activities have already disappeared behind the named giants of the internet. All media guarantee power and income for some and not for others, and in capitalism a long-lasting free internet may remain a dream. Post-Enlightenment and Colin Crouch's (2005) discovery of post-democracy belong together in some sense, and this is not a reason for hope about a free era of communication on the internet – if we do not do more to defend what is possible.

Again, since I do not want to be misunderstood: This does not mean that all these developments lead us into a dark future with no exit. Instead, the conditions of publication and, in the same way, the development of the internet are negotiated between the different forces inside society. Technologies are at the same time possibilities and risks – what may be a consequence depends on such negotiation processes. Thus, if we do not agree, we have the possibility to intervene – against governments and bureaucracy, against the economy and other forces. That is what we must begin to do. We need a strong civil society that struggles for freedom and justice in the era of communication – and we are this civil society. Yet, civil society today does not play a strong role in the field of the digital media – the development is driven by the economy. Even the different governments of the world are not strong enough to control software enterprises like Facebook or Google. Instead, they try to participate by collecting data about everybody. The transformation of universities from members of civil society to parts of the economy as a process of post-Enlightenment destroys

the relatively free field of academic research and support, which in the past was necessary and helpful for the discourses of civil society.

In sum, it is evident by the development of media and communication that universities and their traditional functions for society may actually come to an end, in as far as they are reduced to producing academics and research results for the industry, results that should not be published as they have private owners. This includes, in particular, that the forms of learning will rapidly change in the next decades, and not only the forms; instead, the process of reconstructing human abilities with specialized machines will go on, rapidly, and in all areas of society. For example, in the field of information construction, distribution and control: Indicators are not only the changing processes of teaching and learning in school, but also the emergence of new practical inventions like augmented reality (Krotz, 2011). Here, the ICT people try to teach us to use information and knowledge in a different way, as the idea is that we will get information in exactly the situations in which we need them. This is, according to empirical studies (Medienverbund Südwest, 2012), what the younger generations expect from information providers. It creates new problems of how to evaluate a given piece of information and implies that the long-lasting accumulation of knowledge that took place for individuals in school, university and during the rest of their lives will become at least less important in the coming future.

Furthermore, there are already robots which can write a simple but also readable article on the internet or in a newspaper, if you give the hardware-software-system enough information about a sports event, for example, a soccer game, or about a business report of an enterprise. Thus, we can expect that in a few years, such systems can even write an academic report about a statistical study, if you feed them with the hypothesis and the results from SPSS or STATA. Even conclusions can be written by such a robot, as these are frequently highly conventionally derived from the statistical results and the definition of variables. Post-Enlightenment science in a post-democratic society will thus create new forms of publication and new ways to handle information. Whether all this is helpful for academia, democracy and civil society or only for the economy, is open. We should therefore begin to think about what to do and draw consequences from that.

References

Arbeitsgruppe Open Access in der Allianz der deutschen Wissenschaftsorganisationen (Hrsg.). 2009. *Open Access: Positionen, Prozesse, Perspektiven* [Open Access: Positions, processes, perspectives]. Pamphlet. Bonn.

Castillo-Esparcia, A., Rubio-Moraga, A., & Almansa-Martínez, A. 2012. Communication research. Bibliometric analysis of the most-cited ISI-indexed journals. *Revista Latina de Comunicación Social* 67, 247–267. La Laguna (Tenerife, Canary Islands): La Laguna University. Retrieved July 10, 2012 from http://www.revistalatinacs.org/067art//955_UMA/11_CastilloEN.html. DOI: http://dx.doi.org/10.4185/RLCS-067-955-247-267-EN.

Crouch, C. 2005. *Post democracy.* Cambridge: Polity.

Habermas, J. 1968. *Erkenntnis und Interesse* [Perception and interest]. Frankfurt am Main: Suhrkamp

Krotz, F. 2009. Mediatization: A concept to grasp media and societal change. In K. Lundby, (Ed.), *Mediatization: Concept, changes, conflicts* (pp. 21–40). New York: Lang.

Krotz, F. 2012. Von der Entdeckung der Zentralperspektive zur Augmented Reality: Wie Mediatisierung funktioniert [From the discovery of the central perspective to augmented reality: How mediatization works]. In F. Krotz & A. Hepp (Eds.), *Mediatisierte Welten: Beschreibungsansätze und Forschungsfelder* (pp. 27–58). Wiesbaden: VS.

Kuhn, T. S. 1978. *Die Struktur wissenschaftlicher Revolutionen* [The structure of scientific revolutions] (3rd ed.). Frankfurt am Main: Suhrkamp.

Lundby, K. (Ed.). 2009. Mediatization: Concept, changes, conflicts. New York: Lang.

Nix, S. 2012. Veränderungen als Konstante. Bibliotheken im digitalen Zeitalter [Changes as constant. Libraries in the digital age]. In: *WZB Mitteilungen 136*, Juni, 22–25.

Stein, P. 2010. *Schriftkultur* [Written culture] (2nd ed.). Darmstadt: Wissenschaftliche Buchgesellschaft.