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Changing Academic Structures and Liberating Research
An Interview with Sascha Friesike

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Abstract
In this interview Sascha Friesike presents his vision about changing academic structures. Friesike questions the fanatical fixation on "excellence" and promotes more freedom of research and greater plurality in academic careers. Furthermore, he hopes for a research landscape in which "impact" is understood as ideas that really matter and not as the perpetuation of perverse metrics. He argues that researchers should be supported in prioritizing the sharing of their content and trained to seek impact in the long term.

Keywords
Academic structures
Open science
Freedom
Plurality
Impacts

Sascha Friesike is an Academic Researcher, Professor of Designing Digital Innovations at the Berlin University of the Arts, where he is in charge of a part-time master program called Leadership in Digital Innovation. He is a director of the Weizenbaum Institute for the Networked Society, leading a research group investigating changes in academic knowledge practices. He holds a Ph.D. from the University of St. Gallen and a diploma in Industrial Engineering (Dipl.-Ing.) from the Technical University in Berlin. He is the co-editor, together with Sönke Bartling, of the 2014 open access book *Opening Science. The Evolving Guide on How the Internet is Changing Research, Collaboration and Scholarly Publishing*.

EL   You have a specific expertise in digital innovation and Open Science: how is this influencing the way you produce and publish scientifically?

SF   My background is actually in engineering, even though I never worked in this field. During my engineering studies I came across a research field called "technology and innovation management", which is concerned with how R&D teams should be organized to enable innovation. That question really fascinated me, and when I graduated, I pursued a PhD in this field. At the end of that I was pretty detached from engineering but still interested in enabling people to innovate. At that time, many other people were thinking about changes that needed to be made to the academic system to make better use of technical possibilities. They did so mostly under the umbrella term Open Science. And even though most of the people involved with Open Science are rather averse to the term "innovation", in essence they still wanted to innovate. And given that at this point I knew more about academia than about engineering I was excited to think about innovation within academia. While many academics are busy sticking to established publication paths and formats, I've always had a neck for questioning them.

EL   Scientific publishing and journals, for nearly 10 years now, have been the subject of a continuous discussion and various attempts at profound revision and change. Many institutional Open Access platforms (such as OpenAire, Open Research Europe) are addressing the shaping of new patterns of scientific publications (open and transparent review, new typologies of published research products, interactive visual elements). The formats of journals however have not been really affected, nor has the concept of "publication", which still holds onto the idea of traditional "article". You were the editor of a pioneering book in 2014, *Opening Science. The Evolving Guide on How the Internet is Changing Research, Collaboration and Scholarly Publishing*. Can you tell me more about this "scientific revolution"? How do you think the above-mentioned elements can really converge and lead to the establishment of new, institutional, open, dynamic and more visual/interactive forms of scientific publication, beyond the idea of traditional articles?

SF   I think what's really remarkable about transforming the academic system is how long it takes to move from an idea to broad behavioral change. That is because we are dealing

with an extremely decentralized system, with long and strong disciplinary traditions. And this is coupled with a publishing industry that has learned to make a lot of money by perpetuating established practices. Let's take a simple example: There is no meaningful argument as to why textbooks should not be published Open Access. It's the perfect medium for re-use, because a textbook is not written for a few experts, but for a large group of readers. And yet researchers continue to run to publishers and sign contracts for textbooks that you are supposed to buy for 80 to 100 euros. This is an illustration of how bumpy the road to change is even when the better alternative is blatantly obvious. But this also means that we all have a responsibility not to contribute to the perpetuation of outdated structures. So, in case you ever want to write a textbook, make sure it's under an open license, the audience will in turn make sure it will be actually read. To put in fairly concrete terms: What has a bigger impact: Authoring a textbook for a renowned publisher or authoring a textbook that is widely used? It is always the latter.

EL   In the Open Science scenario, two crucial issues have emerged: the idea of "evolving" knowledge and the re-usability of knowledge, beyond mere citation. In a recent article you talk about "incremental and actionable findings". Can you tell more about this? How do you think scientific publishing could better support the idea of incremental publications, evolving by collaboration, participation and transparency of attribution (e.g. dynamic, contributive or collective authoring processes) (Heller, The & Barting, 2014) as well as knowledge re-use, following the "remix" metaphor, for example by making the content of publications "open" and re-usable (e.g. embeddable) in a new publication, ensuring the correct attribution of authorship and traceability? How do you think this scenario could provide opportunities for early-stage researchers (e.g. literally "anchoring" their contribution to outstanding publications)?

SF   When we started writing the *Opening Science* book, around 10 years ago, we were quite convinced that in the future certain types of academic text will be published in a way that allows for continuous changes. Review articles for instance are usually out of date by the time they are published. From a technical standpoint, authors could simply upload more up-to-date content. In a world where we look up current information on Wikipedia, it's hard to understand why academia can't get this done for their texts. The main explanation is always "attribution." And I think that's wrong. There are quite a few initiatives now trying to measure something like micro-attributions for every activity (review, comment, re-tweet) that researchers do: I think that approach is absolutely flawed, because it turns researchers into the sum of their micro-attributions. You become a sort of machine, measured down to the smallest detail, urged to compete over who can accumulate more of these micro-attributions. This all ensures that the things that an academic system needs far more of, are slowly but surely no longer worthwhile pursuing. Specifically, I'm talking about taking the time to do

novel, risky and innovative research, coming up with actually new thoughts. We do not know beforehand whether or not a certain idea will ultimately take us somewhere useful. We will only be wiser retrospectively. Sometimes it takes years for a novel insight to be widely understood, which can be an additional hurdle. Instead of trying to build attribution packages out of every action a researcher is supposed to take, so that they "get" something for what they do, we should approach the problem from the other end. We should promote more academic freedom and, after a few years, check in to see how much the work is appreciated within the respective field. If given more freedom, most researchers will undertake interesting projects that their colleagues will appreciate. Micro-attributions aren't the right measure of contributions, impact in the field is.

EL Authorship is a concern for credits and recognition in a publication scenario in which the circulation of knowledge is increasingly open, collaborative, evolving and combinatory. Some scholars propose to shift from the authorship to a contributorship model, to better identify and endorse the specific contributions of a co-authored publication, based on a taxonomy of roles, e.g. "conception", "methodology", "investigation", "writing" etc. (Brand et al., 2015). This transparency should also incentivate collaboration, reduce authorship disputes, and increase the visibility of young researchers. How would you envision new copyrights concepts promoting and tracking knowledge sharing and the re-use of publications? How would you solicit a shift in authors' mindsets?

SF As far as the copyright issue is concerned, we already know from other sectors outside of academia. I myself have been researching design communities for quite a while and have looked at how they use open licenses to enable the continuous development of designs. Essentially, you can apply this to academic publishing. But the underlying issue is a completely different one, affecting a number of disciplines. In the past, journals were full of articles written by individual authors. But today's articles are becoming increasingly time-consuming to produce, therefore the number of co-authors goes up. As you have alluded to, it's not uncommon to see articles that have so many co-authors that it inevitably becomes difficult to distinguish the respective authors' roles and contributions. Historically, academia knows only one "role" and that is the role of the author (e.g., there are always debates about whether someone who "only" organized the funding should be allowed to appear as an author, different disciplines view this very differently). An interesting analogy here is the movie industry: to make a movie, you need a lot of people, but they're not all listed as "directors", they're listed in the particular function they held in the production. We would have less of these discussions within academia, if there was such a thing as a producer's role. However, what is currently happening is that there is an increasing amount of publicly accessible data on research activities (e.g., Google Scholar profiles). And by increasing transparency, academia

has created a perverse incentive to cling to old structures (like conventional management of authorship), which instills the desire to produce the highest possible numerical indicators of impact in academics to demonstrate their own importance. Consequently, the well-intended effort to make the academic system more transparent ensures that especially the process of conducting research becomes progressively bogged down and, in turn, necessary adjustments are only made very hesitantly.

EL   The impact of a scientific publication in the Open Science model relies on alternative perspectives on impact, based not only on metrics but on the real reusabilty of content and data. In a 2017 article (Fecher et al., 2017), you demonstrated that sharing content is still not rewarded enough, both in term of credits and reputation, and this often disincentivises open access availability, missing the opportunity for real societal impact. Can you tell me more about this "social dilemma of academic sharing"? How have things changed since then? Have specific policies increased the reputation benefits of Open Access?

SF   Well, for quite some time we've been looking at the question of why researchers hesitate to share their primary data. Even when journals proclaim it as a requirement for publication, this seldomly happens in a way, in which the data can be reused without any major hiccups. Needless to say, the scientific system would benefit considerably if all primary data was accessible and could be reused. But in essence, this is a matter of reputation: How does publicly sharing data contribute to a researcher's reputation? For a researcher, in fact, the more immediate problem is one of opportunity cost: how can I spend my time as a researcher in a meaningful way? And unfortunately, good researchers have too much to do: too many papers that must be written, too many reviews they are asked to do, too many courses they are asked to teach, too many proposals they want or are asked to write. As a consequence, they have to decide very carefully what to invest their time in. When it comes to applications or tenure negotiations, the "shared datasets" have hardly any value, which is why the activity is deprioritized by most researchers. Of course, a researcher could start to measure how often their datasets are re-used. But that would only begin to happen widely if it were more important than publications or third-party funding: If there was a change in external incentives for the researcher to re-prioritize their workload. And I don't expect that to happen any time soon. An alternative would be to allow more plurality in academic careers. Why can't you have a successful career by producing very good data? To return to the movie industry metaphor: In that field, I can be a prolific cameraman or camerawoman and I won't have to write movie scripts. Through my specialization I can excel at my craft.

EL   In a recent article (Friesike, Dobusch & Heimstädt, 2022), you talk specifically about societal impact and propose a "post-heroic approach" to impact, especially for early-career researchers.

How can early-stage researchers be introduced to a non-hegemonic approach to the assessment and measurement of the impact of their publications, and be aware of the emerging practices concerning scientific publications and related opportunities?

SF   I teach a PhD course, in which I ask how my students' academic work actually makes a difference in society. I teach this class in the social sciences, where all participants are interested in practical phenomena. These PhD students are eager to have societal impact with their research. For example, I remember a student who did comparative studies on government interventions for the homeless: different countries take very different approaches and end up with very different results. She can write an academic article on this topic and theorize it, but this article won't reach anyone in practice. With my class I want to motivate my students to think about who they actually want to engage with and in which way. The students' goals were often quite naïve, for example, writing a best-selling book that brings their research topic to the attention of a broad audience. I always try to explain to them that junior researchers seldomly have the time or the necessary skills to write a best-selling book. Instead, I propose the term "post-heroic approach", because impact work should be understood as a path that one takes over the course of their academic career, through small but directed activities. And I always try to strengthen their awareness that this work is not different from research. That through these focused, small-scale action they get access to research topics, which will further inspire their academic careers.

EL   In scientific publishing there is also great concern about the under-representation of the Global South, which is not only a question of inclusion of a wider geographical range in the publication realm, but specific attention to the non-homologation of rather different cultures of scientific thinking and knowledge production. Do you think that the Open Science model, in fostering the democratisation of knowledge by its accessibility, can also ensure equity in knowledge creation and distribution in regard to any North/Western/Eurocentric bias of research and publication? Do you have specific examples?

SF   I don't see Open Science providing an answer that can really fix historically entrenched global structures. For me, one of the major problems within the academic system is the almost fanatical fixation on the concept of "excellence." Everything has to be excellent in order to be funded and, by extension, result in permanent positions. Additionally, what we conceive of as "excellent" mostly stems from the past. A cooperation with Harvard University will always be deemed "excellent", no matter how meaningless the actual project might be. A cooperation with a university in the Global South, or even one in Eastern Europe, on the other hand, is very difficult to present as "excellent". This is simply because these universities are not at the top of the rankings, in which budget and "excellence" are basically always more or less equated. We are perpetuating established structures in order

to adorn ourselves with these very structures. To resume, researchers which are tied to "excellent" institutions are truly afraid of the loss of status, because that seems to be the worst thing that can happen to your academic career.

EL   I would like to conclude with a broader reflection, that bring us back to the starting point of this interview. "Openness" as a transversal category coupling science and innovation has acquired popularity, resulting in a closer win-win association of the two terms. You recently challenged this predominant view, affirming that "for the domain of science, negative consequences are predominant" (e.g. "might increase science's dependence on profit-oriented platforms") (Heimstädt & Friesike, 2021). Can you tell us more about this pro-grammatic concept of Open Sciences as "what should be 'open' versions of scientific practices, such as Open Access journals, open data repositories or open educational resources"?

SF   I explained at the beginning of the interview that I have a background in innovation management. For more than 10 years now, I have been working on how to open up academic practices. Lately, I've been stumbling over the fact that the two terms Open Science and Open Innovation are often used interchangeably. Something like Open Innovation in Science is Open Science. And I think it is important to point out that while there is a great deal of overlap between the two terms, they are not the same. There are a lot of activities in academia that are neither innovative nor lead to innovation. And if we see Open Science only as a means to innovation, then we cut off important parts of the Open Science movement. An example: If a museum makes its archive available under an open license, that's clearly Open Science but not innovation. Nevertheless, we want something like that to happen. Not long ago, I co-wrote an article to point out that such an equation of the two terms can have unintended side effects. The article is partially inspired by the observation that parts of the academic system react very negatively to the term "innovation". A large number of Open Science activists certainly don't want to be seen as Open Innovation activists. And I simply wanted to point this out.

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