STRIVING FOR SOCIETAL IMPACT AS AN EARLY-CAREER RESEARCHER: REFLECTIONS ON FIVE COMMON CONCERNS

Sascha Friesike, Leonhard Dobusch and Maximilian Heimstädt

ABSTRACT

Many early-career researchers (ECR) are motivated by the prospect of creating knowledge that is useful, not just within but also beyond the academic community. Although research facilities, funders and academic journals praise this eagerness for societal impact, the path toward such contributions is by no means straightforward. In this essay, we address five common concerns faced by ECRs when they strive for societal impact. We discuss the opportunity costs associated with impact work, the fuzziness of current impact measurement, the challenge of incremental results, the actionability of research findings, and the risk of saying something wrong in public. We reflect on these concerns in light of our own experience with impact work and conclude by suggesting a "post-heroic" perspective on impact, whereby seemingly mundane activities are linked in a meaningful way.

Keywords: Engaged scholarship; impact; open science; rigor-relevance gap; science communication; third mission

Organizing for Societal Grand Challenges
Research in the Sociology of Organizations, Volume 79, 239–255

ISSN: 0733-558X/doi:10.1108/S0733-558X20220000079022

There are better-paid jobs, there are less stressful jobs, and there are jobs with more predictable career trajectories. But in all probability, readers of this article work in academia. What is it that makes academic work so appealing, despite its obvious downsides? A small number of academics derive meaning from fully immersing themselves in the production of academic arguments. They find academic work most fulfilling when political values and practical concerns are kept at bay (Weber, 1946). Most other academics, however, regard the question of meaning as more complicated (Alvesson, Gabriel, & Paulsen, 2017). They are often intrigued by the process of creating knowledge, but at the same time, they want to experience this knowledge being of practical use to individuals, organizations, and institutions beyond the academic sphere (Burawoy, 2005; Wickert, Post, Doh, Prescott, & Prencipe, 2020). They not only strive for *scholarly impact* within academia but for *societal impact*, too. In this essay we refer to activities through which researchers engage with people outside academia as *impact work*. Impact work includes activities such as giving public lectures, writing media op-eds, using social media platforms, informing policy processes, developing open educational resources, and providing consultancy services to private or public organizations.

These two aspirations – academic knowledge and societal impact – are more closely entangled in the social sciences than in many other academic fields, since society itself is the object of research (Giddens, 1984; Gond, Cabantous, Harding, & Learmonth, 2016; Heimstädt & Friesike, 2021). To come to terms with this entanglement, social scientists have theorized quite extensively about the relations between academic research and impact work (Bartling & Friesike, 2014; Bucchi & Trench, 2014; Davies & Horst, 2016; Jamieson, Kahan, & Scheufele, 2017; Kieser, Nicolai, & Seidl, 2015; Perkmann, Salandra, Tartari, McKelvey, & Hughes, 2021; Weigold, 2001). Most of this research on the relations between abstract knowledge and society has resulted in even more abstract knowledge. In this essay we aim to resist abstraction and to develop practical knowledge for a specific group of academics: early-career researchers (ECRs). ECRs – including doctoral students, postdocs, and untenured junior faculty – are in a particularly challenging position when it comes to the pursuit of societal impact. First, they have less academic reputation than their senior colleagues, which makes it more difficult for them to establish expert authority among non-academic audiences. Second, they also have less incentive to engage in impact work by comparison to more established researchers. While universities often expect established researchers to serve as figureheads by developing a public profile, the evaluation of ECRs' performance is linked more strongly to the production of academically reputable publications.[1] Third, the education of ECRs typically focuses on skills and knowledge they will need to publish and to succeed in the "ranking games" of academia (Osterloh & Frey, 2015). At the same time, however, many social science departments define their mission as societal impact. They claim, for example, to "develop scientifically substantiated interventions" (University of Groningen), "find innovative solutions in the pursuit of the common good" (Sciences Po) or "tackle some of the major challenges facing humanity in the 21st century" (University of Oxford). Others seek to offer their students an education that has "weight in the real world" (Goldsmith University) or leads to "immediate societal

impact" (Leiden University). Yet, very few institutions have translated these visions into either impact-oriented educational programs or respective incentive structures for their ECRs (Könneker, Niemann, & Böhmert, 2018). Given this lack of structural support, we want to provide ECRs with a resource for self-help in their pursuit of societal impact.

When we approached ECRs in our own community, we found that many of them are dealing with the same concerns. In the rest of this essay we will discuss five common concerns struggled with by ECRs who wish to engage in impact work: In "Do I even have time for this" we reflect on the opportunity costs of impact work. In "Should I focus on impact activities that count?" we engage with the fuzziness of current impact measurement. In "Are my findings too incremental?" we examine different ways of making a contribution. In "My findings are not actionable – so how are they useful?" we discuss the transferability of research findings. And finally in "What if I say something wrong?" we talk about the perils of public discourse. We reflect on these concerns on the basis of our own experience as impact-oriented academics and provide a series of personal vignettes to illustrate our arguments. While these reflections do not lead to a "recipe" for creating societal impact, they converge into what we call a "post-heroic" perspective on impact. From this perspective, impact emerges over time, as a researcher links individual impact activities in a meaningful way. Thus, impact is neither a distant goal that only established researchers can reach, nor the cumulative result of a great quantity of activities. Instead, impact emerges from targeted, purposeful practices carried out over time. This understanding of impact, we hope, will encourage ECRs to take a leap of faith and start working toward societal impact.

DO I EVEN HAVE TIME FOR THIS?

Many ECRs assume that the single measure of what will make or break their academic career is their tally of publications in so-called "top journals." While they feel that engaging in impact work with non-academic audiences can make their job more meaningful, they also wonder whether the opportunity costs of such activities – the papers not published while engaging with the outside world – are just too high a price to pay. We don't deny the "publish or perish" mentality that dominates academia (De Rond & Miller, 2005). All three of us have felt (or, in the case of the untenured co-author, still feel) the pressure to publish in "top journals." However, we also believe that – in the social sciences at least – the distinction between "time well spent on publications" and "time well spent on impact work" is a false dichotomy. Of course, we all know colleagues who have developed academic careers by devoting most of their time to "pure" forms of academic reasoning (whether expressed as conceptual theory building, simulation modeling, or granular coding of qualitative data) required by the most reputable journals in our field.[2] But we have also crossed paths with many scholars who have managed to develop successful careers in academia that include significant amounts of impact work. We argue that the latter case is no anomaly; there are at

least two ways in which work toward societal impact can contribute to the creation of outstanding scholarly contributions.

First, impact work can underpin the creation of interesting research papers when it helps scholars to access field sites that remain inaccessible to others. Having access to a highly exclusive or even confidential field site allows scholars to make observations that are unique, noteworthy, and consequently attractive for journal editors and readers alike. Gaining such access, in turn, often depends on superior knowledge of a field and on earning the trust of gatekeepers and practitioners. Trust is particularly difficult to acquire intentionally, as it is generally a "by-product" of longer-term engagement (e.g., in the process through which one of the authors gained access to the hacker collective "Anonymous," see Box 1).

Box 1. Access to the Hacker Collective "Anonymous"

Through his impact work as an ECR, one of the authors of this essay was able to secure access to the hacker collective "Anonymous." Data he gathered on this highly secretive group laid the foundation for one of the author's first publications in a "top journal" (Dobusch & Schoeneborn, 2015). What helped him to secure access to members of the secretive group of hacktivists was the credibility and personal contacts he had acquired over years of blogging at netzpolitik.org, a German language blog with an outstanding reputation on issues such as digital rights, data protection, or anti-surveillance. His openly accessible blog posts, as well as a personal endorsement by the blog's editor-in-chief helped the author to reassure potential interview partners that the research he was planning would not be used by police or other state agencies to identify and track-down participants in Anonymous's illegal hacking activities. The author's own blog posts did not cover predominantly hacking-related topics but focused on issues of copyright regulation. However, what led to the transfer of credibility from the blog to the author was the longevity of his engagement for the blog and the blog's explicit positioning as an advocate for civil rights and civil society. Hence, the creation of the rare and scientifically valuable data set on Anonymous was enabled by two things that ECRs are warned to avoid: engaging in impact work for several years with no obvious instrumental objective, and engaging in public debates by taking a political stance.

Second, impact work can enable researchers to discover and attend to emerging empirical phenomena earlier than their academic peers. Sensing a new phenomenon early may allow ECRs to write an article that becomes an obligatory point of passage for future research on this phenomenon. The more undirected and open the impact work with outside actors, the greater an academic's capacity to sense emerging phenomena. One arena in which impact work can lead to the discovery of new phenomena is Twitter. For example, two of the authors used

Twitter to discuss their research on Open Access publishing with other academics, librarians, and people working in the publishing industry. It was through this form of impact work that they sensed the growing relevance of "predatory publishing" and decided to explore the implications of this phenomenon for their field in an academic article (Dobusch & Heimstädt, 2019). The discovery of new phenomena through impact work, however, can only be translated into scholarly reputation when reputable journals are willing to publish this type of work. For several decades, journals in the field of management and organization studies were biased toward theory-driven research. But recently we do see a shift in this field, with established journals like *Long Range Planning* (Von Krogh, Rossi-Lamastra, & Haefliger, 2012) or *Journal of Management Studies* (Wickert et al., 2020) and new outlets like *Academy of Management Discoveries* (Van de Ven et al., 2015) embracing phenomenon-driven research.

SHOULD I FOCUS ON IMPACT ACTIVITIES THAT COUNT?

The growing interest of research institutions and funders in societal impact has given rise to various indicators and methods for making engagement between academics and non-academic publics measurable. One of the most popular instruments used for this form of quantification are Altmetrics. Altmetrics assess how widely an output (e.g., a research article) has been referenced outside of the scholarly literature, that is, in "alternative" forms of communication such as news media, blogs, or social media platforms. Altmetrics eventually collapse all this information into a single number, which is framed as representing a paper's overall impact on society. While some academics use Altmetrics as a way to monitor the popularity of their outputs personally, they are also used increasingly as a performance measurement tool by research institutions and funding bodies around the world (Fraumann, 2018). The institutionalization of Altmetrics as a performance measure in academia raises the question for ECRs of whether they should focus impact work primarily on those activities captured by these metrics. We believe that what seems to apply to most evaluative systems holds true for Altmetrics as well: "when a measure becomes a target, it ceases to be a good measure" (Strathern, 1997, p. 308). Our overall conviction, therefore, is that ECRs should be aware of but not cling to the Altmetrics system. The reasons for this are threefold, at least.

First, Altmetrics conflate attention with societal impact (for a broad definition of impact, see e.g., Burawoy, 2005; Wickert et al., 2020) . Whether an article scores high on Altmetrics can be strongly affected by its authors' social media network and even more so, by the way its content is framed by media outlets. For example, one of the articles with the highest Altmetrics score in 2018 discussed the effect of extreme drought and heat on the global beer supply (Xie et al., 2018). While the immediate usefulness of this paper to a general public might be limited, it gained widespread attention when, for instance, WIRED reported on it under the title "Don't save the planet for the planet. Do it for the beer" (Rogers, 2019).

There are many forms of impact work that do not translate into public attention (e.g., consulting work, private discussions with policy-makers, membership of advisory boards) and can hence be captured only inadequately by systems such as Altmetrics (Fecher & Hebing, 2021). Clinging to such systems thus narrows the range of potential activities through which ECRs can strive for societal impact.

Second, attempts to increase the measurability of impact work through systems like Altmetrics may even directly undermine the success of ECRs' "academic activism" (Rhodes, Wright, & Pullen, 2018). For example, an ECR might be asked by civil society organizations to provide scientific expertise for their upcoming campaign against a major corporation's business practices. This type of consultation work is time-consuming but can only be captured in Altmetrics systems if the ECR documents their engagement, for example, in a blog post. At the same time, the more attention this type of documentation attracts, the more likely it is that the corporation will take preventive measures – thereby reducing the overall effect of the campaign.

Third, even though an impact activity may not lead to direct, measurable results, it is quite possible that there will be considerable indirect effects. And in turn, these could have an impact on other areas of academic life that are being evaluated. One typical example is the spillover effect between impact activities and academic teaching. Our teaching can be more exciting and versatile if its transfer into practice is taught as well as academic theories. For example, with guest lectures by experts we have met through impact activities. But impact activities may also affect the way we teach, as the example in Box 2 illustrates.

Box 2. Module on the Masterplan Learning Platform

A few years ago, one of the authors was asked by the online learning platform Masterplan[3] to help to develop a video-based online learning module. The Masterplan platform is used by many companies in the German-speaking world for employee development. The creation of a professional training seminar is a form of impact work that is not taken into account in university performance evaluations, and it does not provide access to particularly unusual field sites, either (see the previous vignette on Anonymous). However, the author decided to accept the invitation – the challenge of putting his own work into a video format for continuing education seemed intriguing and fun. The actual implementation was more time-consuming than he had imagined and transferring thoughts coherently into a video format was a real challenge, not to mention the strange feeling of appearing in front of a camera and speaking to an imaginary audience. But the experience gained was of great value later, when the COVID-19 pandemic made traditional teaching impossible and universities switched to video lectures. Having experienced this in a professional context made the transition to online teaching much easier; the teaching formats emerged quite quickly and were very well-received by students.

ARE MY FINDINGS TOO INCREMENTAL?

When we think of social scientists who have gained popularity beyond the academic community, we often associate them with a single iconic concept. In our own academic field, these are concepts like Clayton Christensen's (1997) "disruptive innovation," Kaplan and Norton's "balanced scorecard" (1996), or Kim and Mauborgne's "blue ocean strategy" (2014). These breakthrough ideas are famous inside and outside academia and enjoy a halo effect that overshadows more mundane impact activities. When ECRs compare their own works to iconic concepts they typically come to the conclusion that by comparison, their findings seem rather incremental. Instead of developing a novel approach to innovation (disruption) or strategy (blue ocean), they may test, broaden, or refine established concepts in an incremental fashion – adding a small detail to a long tradition of other small details. This comparison leads to ECRs asking whether their own results are perhaps far too incremental to make an impact outside of academia. We believe that while the concern is understandable, it artificially restricts the self-efficacy of one's own – sometimes incremental but still relevant – impact work. We would like to raise three points for discussion in this context.

First, the comparison of incremental findings and iconic concepts nurtures the belief that the only resources available to social scientists when engaging with societal groups are their own original contributions. However, reflection on the process of knowledge production suggests otherwise. Academic publishing requires a broad overview of an entire research field. ECRs spend a considerable amount of their research time reading and discussing prior research by others. Having an in-depth overview of what has been said by other researchers provides ECRs with a valuable resource for public engagement and a foundation on which to build broad impact activities. Even if one's own contribution to the field may be incremental, over time one gains an overview of other incremental contributions that can be applied to a broad range of situations. While iconic concepts typically comprise a single idea that cannot possibly be the answer to every question, ECRs have the opportunity to apply the diversity of what they have read to their own impact activities. Furthermore, when engaging in impact work, ECRs sometimes find that neither their own nor the field's contributions will help them to answer specific questions. In many cases, what is asked of scholars in their roles as public experts cannot be answered with strict scientific reasoning alone but requires some form of informed speculation and translation – science scholars refer to such issues as "trans-scientific questions" (Weinberg, 1972). During the COVID-19 pandemic, we and our colleagues have been confronted with trans-scientific questions regarding how such an unprecedented crisis can be managed. In Box 3 we describe how one of the authors responded to these questions with an innovative open online course. As an example shows, knowing one's field of research can be a great help when contextual factors change, as long as one is able to transfer existing insights to the new context. Researchers are not only the intellectual parents of their own findings, therefore, but also navigators who can open up their research field to others.

Box 3. Organizing in Times of Crisis

When the COVID-19 situation grew into a global pandemic in early 2020, many social scientists were confronted with the question: How can we, as a society, cope with this crisis? To address this problem, one of the authors teamed up with a group of colleagues from the social sciences, and within a few weeks they had developed the collaborative open online course "Organizing in times of crisis: The case of COVID-19."[4] The course took the crisis as a context against which to teach basic organization and management knowledge, yet combined this basic knowledge with critical reflection on the pandemic's development and its implications for management (e.g., regarding global supply chains or other grand challenges such as climate change and inequality). What made the course particularly impactful (reflected in an international award for impactful teaching) was that all the course materials were made available with open access to anyone. A core syllabus as well as all the lecture slides was published in editable, open formats for download. They were also openly licensed to allow for adaptation without the need to clear rights, enabling everyone to adjust the course flexibly to local needs. This online course shows that impactful engagement with non-academic stakeholders does not need to be restricted to a breakthrough idea or the narrow set of truth claims made by scholars in their own peer-reviewed publications: it can also result from the application of existing knowledge to an emerging context.

Second, comparing one's own incremental research to iconic concepts underestimates the societal value that may come from deep engagement with a narrow topic. It is certainly true that most dissertations are hardly suitable subject matter for best-selling books. But conversely, that does not mean that these works cannot be of tremendous value to a very specific group. Identifying this group and entering into a dialogue with them is often easier – and may be even more rewarding – than addressing a broad audience. Finding relevant stakeholders is often easy, as one already established contact during the research process. It is also possible to demonstrate academic expertise with only a few specific publications. And furthermore, one has substantive access to the concerns and problems that could be addressed through impact activities. In all, this allows researchers to develop particularly deep insights relating to a specific topic and then share them with societal stakeholders. One of the authors of this essay, for instance, was researching the role of remixing design objects in 3D printing communities. This is not exactly a topic receiving widespread attention in the media, but it is of particular interest to those involved (platform providers, makers, and community managers at fab labs[5]). Following several publications on the topic, the author was engaged in numerous email exchanges and presented his work at community conferences and fab labs. One strength of the academic research system lies in

its sheer quantity of topics and research approaches. Even if individual research projects can only be transmitted to a small group of users, the great strength of the system lies, among other things, in the fact that practically every research topic allows access to a small, specific audience. Overall, then, science is capable of addressing countless topics, even if the individual findings themselves do not amount to iconic concepts.

Thirdly, it is important to understand how iconic concepts emerge. Sociologists of science argue that ideas do not turn into an iconic concept because of their inherent quality, but primarily through the processes whereby they are socially constructed as outstanding and unique (Latour, 1993). In many cases, the social construction of an iconic concept follows a pattern. A book is written, followed by a number of articles in "popularization journals" (Schulz & Nicolai, 2015, p. 31). Afterwards, the "academic entrepreneurs" (Mehrpouya & Willmott, 2018, p. 729) hit the road and spent months or even years taking the idea to the public in lectures, workshops, and consulting gigs. Ideas that are successfully constructed as an iconic concept lead to real consequences. For example, an iconic concept can be very helpful to an entire academic field that is seeking legitimacy from non-academic audiences. When an academic field has produced a concept that has diffused into non-academic language as well (e.g., "disruptive innovation"), the field is more likely to secure future resources from individuals and organizations outside the academic community. However, pursuit of an iconic concept might lead to a situation in which the popularization of this very concept becomes the only form of impact work appearing plausible to the researchers involved. When a concept has been successfully constructed as "iconic," academics can become locked into this concept as the only topic of their impact work. Their name becomes so strongly associated with the concept that fear of a "sophomore slump" creates a cognitive barrier to the development of a new, unrelated idea. The halo effect of an iconic concept comes with a downside, therefore, as the success of the idea forces the researchers to stick with it. Doing research that achieves incremental results can also be understood as a feature, allowing an ECR to deal with a different topic in the next project, and thus to get involved in a different, exciting subject area.

MY FINDINGS ARE NOT ACTIONABLE – SO HOW ARE THEY USEFUL?

Many of our field's canonical textbooks not only feature peer-reviewed research findings but also introduce a broad array of "plug and play" management tools. Rarely, however, do these textbooks discuss the differences between these forms of knowledge. This shortcoming, we believe, shapes the way ECRs think about impact work. When they begin to contemplate opportunities for engagement beyond the academic community, some ECRs assume that only academic knowledge that can be translated easily into "plug and play" tools can be useful for non-academic audiences. If their research does not lend itself to such translation, they might become discouraged from impact work. This concern can be mitigated by

clarifying the epistemological status of popular tools and by taking into account the different ways in which academic knowledge can be useful for non-academic audiences.

Looking at the history of popular management tools, we find that many did not emerge from academic research but from knowledge work by practitioners. In his historical study on the professional field of strategy, Whittington (2019), for instance, sheds light on the genesis of the famous "Growth-Share Matrix." Although the matrix is featured in many textbooks, Whittington shows that it was not translated from academia into the world of strategy consulting, but was created *ex nihilo* by employees of the Boston Consulting Group. In order to move their invention closer to the world of academic knowledge, the consultants theorized the concept in several articles, publishing them in outlets such as the Harvard Business Review as well as the firm's own working paper series. Another famous example is the "Cynefin Framework" developed by Dave Snowden when employed by IBM Global Services. The Harvard Business Review article on the concept (Snowden & Boone, 2007) won the "Outstanding practitioner-oriented publication in OB" award from the Academy of Management. Today, the framework is widely applied in teaching and practice. We hope that these examples will provide ECRs with some relief from their concern about actionability, as they show that while tools like the growth-share matrix appear as very useful examples of academic knowledge, they should be seen more as academically fashioned examples of practical knowledge.

Concerns around the actionability of one's own research can also be mitigated by familiarizing oneself with the full spectrum of academic research's usefulness for non-academic audiences. Nicolai and Seidl (2010) describe three different ways that academic research can be useful for practitioners. First, academic knowledge can provide what they call "instrumental relevance" (p. 1266) by helping practitioners make decisions. These can be (a) schemes that provide systematic categories like flow charts or matrixes; (b) technological rules or recipes that provide a course of action; and (c) forecasts that provide predictions about future developments. Second, Nicolai and Seidl describe "conceptual" (p. 1267) and "legitimative" (p. 1268) forms of relevance. Conceptual relevance can derive from (a) new linguistic constructs such as metaphors ("organizations as organisms"); (b) uncovering contingencies like alternative routes of action; and (c) uncovering causal relationships or unknown side-effects. Rather than proposing a direction, conceptually relevant research takes the form of "reflexive knowledge" that provokes a critical, substantive debate – or, as Burawoy (2005) puts it, is "concerned with a dialogue about ends" (p. 11). Third, Nicolai and Seidl suggest that scientific knowledge can have legitimative relevance, when individuals or organizations can acquire material or symbolic resources simply by affiliating with it (e.g., when a startup receives funding because its business plan cites peer-reviewed academic articles). These forms of relevance show that academic knowledge's societal impact is by no means limited to "plug and play" tools such as checklists or frameworks; academic research can also be useful for non-academic actors in many other ways. Providing an example of such

usefulness beyond the application of scholarly knowledge as a tool, Box 4 cites a case where a scholarly concept is applied as a framework for reflection on a practical problem.

Box 4. Path Dependence and the Wikipedia Community

The Wikipedia community is a focal research object for one of this essay's authors. In recent years, he has engaged regularly in dialogue with the community and reported back on some of his research findings. In this form of impact work, he frequently mobilized the theoretical concept of "organizational path dependence" (Sydow, Schreyögg, & Koch, 2009), which was perceived by the Wikipedia community as a new, intuitive, and useful metaphor for understanding their own organization. In the case of Wikipedia and its male-dominated pool of volunteer editors, path-dependence theory explains how a lack of diversity early on may have been reinforced over time into a persistently male-dominated community culture. This culture, in turn, makes it harder to increase the diversity of contributors at later stages in the process. Such a path-dependence lens can explain bias without putting too much blame on individual community members. At the same time, it highlights the need for external intervention, given that self-reinforcing dynamics make it very unlikely that the diversity problem will be resolved from within the community. The concept of organizational path dependence thus serves as a good example of academic knowledge that is not instrumentally but conceptually relevant: it offers the Wikipedia community a tangible metaphor for a problem that was hard to describe before. The new metaphor enables the community to address this issue communicatively, but at the same time, it does not prescribe any immediate action regarding how to resolve the problem of the male-dominated community culture.

WHAT IF I SAY SOMETHING WRONG?

Making a research presentation to academic peers can be a stressful experience – but at least the presenter can expect a minimum level of professional decency and some predictable discursive rituals ("There is a lot to like about your paper, *but* …"). In an academic setting, the presenter can work out quite easily whether a presentation met expectations or not, but such situations very rarely turn into hostile exchanges. When academics provide expertise for non-academic publics, the audience's response is much less ritualized and predictable. Thus ECRs might feel uncertain about what is expected of them in situations of impact work and fear that if they "say something wrong," they will embarrass themselves or even cause lasting damage to their reputation. To help mitigate this concern, we first

take a closer look at the dynamics of public repercussion and then offer some practical suggestions for managing them over time.

The history of scientific expertise in public debates yields some extreme cases in which impact work has led to reputational disaster for the researchers involved. For example, Hirschi (2018) has reconstructed the "ecstasy controversy" around British pharmacologist David Nutt. Asked by the British government to revise an existing risk classification of drugs, Nutt came up with a list in which alcohol and tobacco were rated as more harmful than LSD, cannabis, or ecstasy. The government was extremely dissatisfied with the result of this expert consultation, yet Nutt refused to budge from his own classification scheme. As a result, the government not only dismissed him from his formal role as government advisor; members of the government also used the mass media to frame Nutt's results as his personal political opinion rather than scientific knowledge.

Impact work can also lead to repercussions among academic peers. Most of us will recall a situation in which academics (over a glass of wine at a conference reception) gossiped about the senior colleague who allegedly spends most of their time on impact work rather than writing peer-reviewed articles. In the eyes of the gossipers, such constant exchange with non-academic audiences makes the colleague lose touch with the discipline's "pure" questions and "rigorous" methods. A recent example of this dynamic is the book *The Age of Surveillance Capitalism* by Harvard Business School professor Shoshana Zuboff. The best-selling book attracted much praise from the popular press (*The New Yorker* included it in its list of top non-fiction books of 2019) but it was harshly criticized from within the academic community for a lack of methodological rigor (e.g., Haggart, 2019).

The cases of David Nutt and Shoshana Zuboff illustrate how impact work can lead to an academic's loss of reputation among the general public as well as the academic community. However, there were very specific boundary conditions in those two cases. Both Nutt and Zuboff were well-established senior researchers when engaging in these respective episodes of impact work. It also seems fair to assume they were able to anticipate the effect of their impact work on their reputations but deemed it a risk worth taking, given their career stage and the opportunity to make a societal impact. Most ECRs will not find themselves in comparatively high-stakes situations with the potential to damage their reputation. However, they may well encounter public repercussions that evoke paralyzing feelings of embarrassment and shame. In Box 5, one of the authors of this essay provides a personal account of how he experienced and coped with a failed attempt at impact work on Twitter. The experiences of critique in digital publics vary, however, depending on the researcher's subjective position (Ferber, 2018). For example, female researchers are more likely than male researchers to experience harassment in digital publics. To cope with this harassment, female researchers not only engage in coping strategies such as resistance or acceptance (as described in the following vignette); they may also feel the need to turn silent or decide to avoid certain platforms altogether (Veletsianos, Houlden, Hodson, & Gosse, 2018). Such coping strategies hence limit their ability to engage in impact work and leverage its positive side-effects.

Box 5. Turning Criticism into Research Ideas

When one of the authors submitted his master thesis, he hoped that his first piece of "real" research might also be interesting to a wider audience. In his thesis, the author described how a group of transparency activists in the UK successfully convinced government agencies to "open up" their digital data sets by uploading them to the Internet. The author felt sympathy with the transparency activists and decided to share his thesis on the Internet as well. He uploaded the document to his private website and announced on Twitter that he had "opened up" his work. At first, the Tweet received some favorable reactions from his interlocutors and other activists. A few minutes later, however, another Twitter user left a rather harsh comment criticizing the fact that the author had published his thesis under a license that was not in line with the activists' definition of openness. The Tweet ended with the words "you should know better," suggesting that the author lacked understanding of his own research topic. This was an embarrassing situation for him. He quickly changed the document's license, but the experience stuck with him until he finally figured out that what had happened that day on Twitter was not just a personal embarrassment; it was also an interesting opening from which to explore the way in which transparency activists manage the boundaries of their movement. Almost four years after the somewhat failed experiment in science communication, he was able to exploit this insight in a paper on the phenomenon of "openwashing" (Heimstädt, 2017). Tweets about this paper were unanimously well-received.

For most mundane forms of impact work, risks of reputational damage and embarrassment cannot be eliminated, but they can be reduced using two tactics. First, the risks can be managed by trying to assess upfront what the respective audiences will expect from their engagement with an academic. Being able to classify the expectations of one's counterpart may sound trivial, but it is an essential step toward overcoming feelings of discomfort. All three of us have received inquiries (e.g., a request to provide a keynote presentation for a practitioner audience) where an assessment of expectations revealed that someone else could meet them much better. Sometimes, one's own impact work may consist of giving advice on who else to ask.

Second, managing these risks also means choosing the right form of impact work in which we feel best able to defend our reputation (or self-esteem) against critique. For example, some academics might feel quite comfortable with performative forms of impact work, on stage and in front of an audience. They feel that having a rough idea about the audience and being in a physical position of authority allows them to best defend their reputation. Other academics might feel more comfortable with digital publics such as social media platforms. In

these settings, assumptions about the audience are more difficult to make, but the affordances of social media (mostly text-based communication) allow for a more careful, considered crafting of responses to criticism.

CONCLUSION: STRIVING FOR IMPACT MEANS COPING WITH CONCERNS

Many ECRs expect a career in academia to allow them opportunity to balance the creation of academic knowledge with engagement in impact work. Increasingly, academic institutions do embrace their employees' desire for societal impact, but so far they provide only very limited support for those academics who would benefit the most: ECRs. The aim of this essay is to provide ECRs with self-help by unpacking five common concerns around impact work.

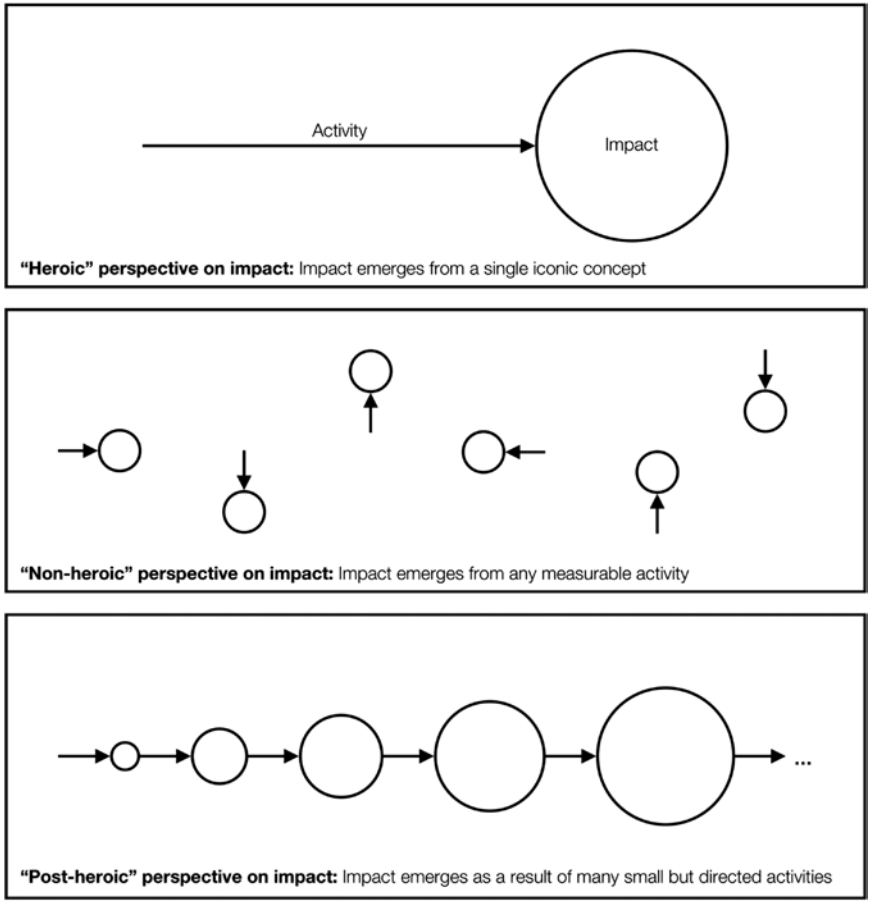

Fig. 1. Heroic, Non-heroic and Post-heroic Perspective on Societal impact.

This article was not intended to advance any theoretical program on the conditions, forms, and consequences of research impact (Kieser et al., 2015), but set out to develop practical knowledge for ECRs, based on our own personal experiences. What form does this practical knowledge take, by contrast to theoretical knowledge on the impact of social science research? We propose that our discussion of five common concerns has helped us to present a *post-heroic* perspective on impact – not as a theoretical lens for studying impact but as a resource to guide ECRs' impact activities (see Fig. 1). We suggest this post-heroic perspective on impact as an alternative to the more established (i.e., popular among ECRs and other researchers) heroic and non-heroic perspectives.

When academics make sense of their own impact activities from a heroic perspective, they adopt a narrow focus on the generation of an iconic concept. In contrast, when academics make sense of their impact work from a non-heroic perspective, they might easily conflate attention with relevance. When academics make sense of their impact work from a post-heroic perspective, they are able to realize societal impact from mundane and seemingly inconsequential activities (a lecture here, a podcast episode there, and a press article elsewhere), which they skillfully connect in order to make them consequential over time. When ECRs approach impact neither as a strategic project nor as an accumulation of atomic activities, but as the piecing together of individual impact activities in a meaningful way, we believe that they will be able to follow present-day academic careers that will profoundly transform the institutions of science in the future.

NOTES

1. The different evaluation regimes of ECRs and tenured faculty seem more pronounced in national contexts where universities rely heavily on attracting private sector funding and generating revenue through executive education programs (e.g., USA and UK).
2. This singular devotion to abstract theorizing has been criticized as the "'physics envy' approach to management research" (Thomas & Wilson, 2011, p. 447), that is, the compulsion to develop novel and pure theories constantly in an effort to signal legitimacy as a "real" scientific discipline.
3. https://masterplan.com/en/
4. Available at timesofcrisis.org
5. Fab lab is a common term for small-scale workshop spaces that allow individuals to engage in digital fabrication.

ACKNOWLEDGEMENTS

We would like to thank the editors of this volume as well as the anonymous reviewer for their constructive feedback. We are also grateful for the feedback we received from Benedikt Fecher, Johanna Hampf and the ECRs Katharina Berr, Paul Börsting, Philipp Golka, Leona Henry, Sebastian Koth, Wolfgang Schwarzmann, and Clarissa Walter. This work has been funded by the Federal Ministry of Education and Research of Germany (BMBF) under grant no. 16DII111 ("Deutsches Internet-Institut").

REFERENCES

Alvesson, M., Gabriel, Y., & Paulsen, R. (2017). *Return to meaning: A social science with something to say*. Oxford: Oxford University Press.

Bartling, S., & Friesike, S. (Eds.). (2014). *Opening science: The evolving guide on how the internet is changing research*. New York, NY: Springer.

Bucchi, M., & Trench, B. (Eds.). (2014). *Routledge handbook of public communication of science and technology*. London: Routledge.

Burawoy, M. (2005). For public sociology. *American Sociological Review*, *70*(1), 4–28.

Christensen, C. (1997). *The innovator's dilemma. When new technologies cause great firms to fail*. Cambridge, MA: Harvard Business Review Press.

Davies, S. R., & Horst, M. (2016). *Science communication: Culture, identity and citizenship*. New York, NY: Springer.

De Rond, M., & Miller, A. N. (2005). Publish or perish: Bane or boon of academic life? *Journal of Management Inquiry*, *14*(4), 321–329.

Dobusch, L., & Heimstädt, M. (2019). Predatory publishing in management research: A call for open peer review. *Management Learning*, *50*(5), 607–619.

Dobusch, L., & Schoeneborn, D. (2015). Fluidity, identity, and organizationality: The communicative constitution of Anonymous. *Journal of Management Studies*, *52*(8), 1005–1035.

Fecher, B., & Hebing, M. (2021). How do researchers achieve societal impact? In *Results of an empirical survey among researchers in Germany*. Berlin. Retrieved from https://nbn-resolving.org/urn:nbn:de:0168-ssoar-71327-4

Ferber, A. L. (2018). "Are you willing to die for this work?" Public targeted online harassment in higher education: SWS Presidential Address. *Gender & Society*, *32*(3), 301–320.

Fraumann, G. (2018). The values and limits of altmetrics. *New Directions for Institutional Research*, *178*, 53–69.

Giddens, A. (1984). *The constitution of society: Outline of the theory of structuration*. Cambridge: Polity Press.

Gond, J. P., Cabantous, L., Harding, N., & Learmonth, M. (2016). What do we mean by performativity in organizational and management theory? The uses and abuses of performativity. *International Journal of Management Reviews*, *18*(4), 440–463.

Haggart, B. (2019). The age of surveillance capitalism: The fight for a human future at the new frontier of power, S. Zuboff (2018). *Journal of Digital Media & Policy*, *10*(2), 229–243.

Heimstädt, M. (2017). Openwashing: A decoupling perspective on organizational transparency. *Technological Forecasting and Social Change*, *125*, 77–86.

Heimstädt, M., & Friesike, S. (2021). The odd couple: Contrasting openness in innovation and science. *Innovation*, *23*(2), 425–438.

Hirschi, C. (2018). *Skandalexperten, Expertenskandale: Zur Geschichte eines Gegenwartsproblems*. Berlin: Matthes & Seitz.

Jamieson, K. H., Kahan, D., & Scheufele, D. A. (Eds.). (2017). *The Oxford handbook of the science of science communication*. Oxford: Oxford University Press.

Kaplan, R. S., & Norton, D. P. (1996). *The Balanced Scorecard: Translating strategy into action*. Boston, MA: Harvard Business School Press.

Kieser, A., Nicolai, A., & Seidl, D. (2015). The practical relevance of management research: Turning the debate on relevance into a rigorous scientific research program. *Academy of Management Annals*, *9*(1), 143–233.

Kim, W. C., & Mauborgne, R. (2014). *Blue Ocean Strategy: How to create uncontested market space and make the competition irrelevant*. Boston, MA: Harvard Business Review Press.

Könneker, C., Niemann, P., & Böhmert, C. (2018). Weniger Wertschätzung, weniger Engagement. Zur Situation der Wissenschaftskommunikation in Deutschland. *Forschung und Lehre*, *10*, 870–872.

Latour, B. (1993). *The pasteurization of France*. Boston, MA: Harvard University Press.

Mehrpouya, A., & Willmott, H. (2018). Making a niche: The marketization of management research and the rise of 'knowledge branding'. *Journal of Management Studies*, *55*(4), 728–734.

Nicolai, A., & Seidl, D. (2010). That's relevant! Different forms of practical relevance in management science. *Organization Studies*, *31*(9–10), 1257–1285.

Osterloh, M., & Frey, B. S. (2015). Ranking games. *Evaluation Review*, *39*(1), 102–129.

Perkmann, M., Salandra, R., Tartari, V., McKelvey, M., & Hughes, A. (2021). Academic engagement: A review of the literature 2011-2019. *Research Policy*, *50*(1).

Rhodes, C., Wright, C., & Pullen, A. (2018). Changing the world? The politics of activism and impact in the neoliberal university. *Organization*, *25*(1), 139–147.

Rogers, A. (2019). Don't save the planet for the planet. Do it for the beer. *Wired*. Retrieved from https://www.wired.com/story/dont-save-the-planet-for-the-planet-do-it-for-the-beer/

Schulz, A. C., & Nicolai, A. T. (2015). The intellectual link between management research and popularization media: A bibliometric analysis of the Harvard Business Review. *Academy of Management Learning & Education*, *14*(1), 31–49.

Snowden, D. J., & Boone, M. E. (2007). A leader's framework for decision making. *Harvard Business Review*, *85*(11), 68.

Strathern, M. (1997). 'Improving ratings': Audit in the British University system. *European Review*, *5*, 305–321.

Sydow, J., Schreyögg, G., & Koch, J. (2009). Organizational path dependence: Opening the black box. *Academy of Management Review*, *34*(4), 689–709.

Thomas, H., & Wilson, A. D. (2011). 'Physics envy', cognitive legitimacy or practical relevance: Dilemmas in the evolution of management research in the UK. *British Journal of Management*, *22*(3), 443–456.

Van de Ven, A. H., Ang, S., Arino, A., Bamberger, P., LeBaron, C., Miller, C., & Milliken, F. (2015). Welcome to the academy of management discoveries (AMD). *Academy of Management Discoveries*, *1*(1), 1–4.

Veletsianos, G., Houlden, S., Hodson, J., & Gosse, C. (2018). Women scholars' experiences with online harassment and abuse: Self-protection, resistance, acceptance, and self-blame. *New Media & Society*, *20*(12), 4689–4708.

Von Krogh, G., Rossi-Lamastra, C., & Haefliger, S. (2012). Phenomenon-based research in management and organisation science: When is it rigorous and does it matter? *Long Range Planning*, *45*(4), 277–298.

Weber, M. (1946). Science as a vocation. In A. I. Tauber (Ed.), *Science and the quest for reality* (pp. 382–394). London: Palgrave Macmillan.

Weigold, M. F. (2001). Communicating Science: A Review of Literature. *Science Communication*, *23*(2), 164–193.

Weinberg, A. M. (1972). Science and trans-science. *Minerva*, *10*, 209–222.

Whittington, R. (2019). *Opening strategy: Professional strategists and practice change, 1960 to Today*. Oxford: Oxford University Press.

Wickert, C., Post, C., Doh, J. P., Prescott, J. E., & Prencipe, A. (2021). Management research that makes a difference: Broadening the meaning of impact. *Journal of Management Studies*, *58*(2), 297–320.

Xie, W., Xiong, W., Pan, J., Ali, T., Cui, Q., Guan, D., … & Davis, S. J. (2018). Decreases in global beer supply due to extreme drought and heat. *Nature Plants*, *4*(11), 964–973.