

Revisiting the social contract for science to foster thriving academic freedom

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Maassen presents a compelling case for avoiding further erosion of academic freedom through the democratisation of science. At the same time, in concert with this approach, we need to revisit the social contract for science. Rebuilding trust between society and science which formed the basis of the original social contract, is critical for achieving the four conditions of academic freedom outlined in the [European Parliament Study](#); institutional autonomy, self-governance, academic labour conditions and the financial conditions of academics.

The social contract for science

The social contract for science was originally introduced by Bush (1945) and Steelman (1947) as the world emerged from the second world war. It encapsulated a framework outlining a broadly transactional relationship between science and society. In this framework society committed to providing funding and autonomy to researchers with the belief that the outputs of that research would generate benefits for society through new discoveries and applications. It is striking that both Bush and Steelman clearly stated that within this framework researchers needed to have the freedom to work on so called 'basic research' even where the applications of that work were not evident in the short-term.

Over the years the contract has evolved. In the mid 20th Century, the impact of science applications gained visibility. There were significant positive outcomes such as the production of new capabilities ranging from household appliances that enhanced quality of life, to the science that got humankind to the moon. However, some problematic outcomes also came to light, such as the impact of pesticides in the environment, and the growing concerns in sectors of society about genetically modified crops, or the safety of nuclear energy. It became clear that not all science progress brought developments that were universally agreed to be positive. As a result, there was a shift in the social contract for science. It became increasingly expected that publicly funded science needed to be demonstrably socially cognisant, able to incorporate an appreciation of complexity, and also have outputs that were clearly relevant to society. In this transition, there was a shift from the original contract where science activity could be undertaken in a context of trust between society and science. What emerged was a move toward ensuring that publicly funded science, like other publicly funded services, was accountable and could demonstrate value for money.

In the 21st century, in a time where the term 'polycrisis' was introduced, the social contract has developed again. Understandably, in the last 25 years there has been a focus on science that can address the urgent problems of our time and produce demonstrable and measurable impact as well as address inequity in all its domains. This has led to a lot of excellent science, often addressing shorter term goals. It is now being argued that the social

contract for science in its current form is no longer characterised by the degree of autonomy that was evident in its earlier incarnations. Instead, there is a growing narrative that science is part of a customer-contractor relationship. As such there is less space for basic research, and science is often valued on the basis of its level of (or potential for) commoditisation, with certain fields promoted over others, particularly those fields that align with industrial strategies. The recent cuts announced in the UK to arts and humanities funding are salient.

As such, it is possible to chart an evolution of the social contract for science characterised by reduced trust between society and science and a resulting erosion in academic freedom. This is accompanied by a growing sense of urgency and preference for outputs that can measurably address the immediately presenting challenges in the short-term.

What this means for academic freedom

To be clear, science and science research in the current social contract is pioneering new approaches and making breakthroughs that are bringing benefit to society globally in a myriad of contexts. However, it is important in the light of the challenges facing academic freedom, to be aware of the current paradigm, and find ways to maximise the benefits and capabilities of science and ensure that in the future we have science in society that brings broad ranging benefits and reduces harms and inequity.

The evolution of the social contract for science is arguably underpinned by the erosion of trust between society and science, with a direct knock-on effect onto the erosion of academic freedom. If left unaddressed, we face an unravelling of society, because, as Maassen eloquently states, academic freedom is recognised to be a *'prerequisite for well-functioning open and democratic societies that adhere to the rule of law'*. Given the intrinsic connection between science undertaken with and for society and the scientists that undertake it, revisiting the social contract for science has the potential to address the current challenge of academic freedom.

It is never easy to adjust the course of a large vessel. However, there are promising signs. There are increasingly visible commitments of many different [bodies](#) and [institutions](#) to enabling meaningful and deep dialogues across disciplines and across sectors. If we can build on this momentum and develop polylogue between the multiple voices and representative sectors across science and society, we have the possibility to rebuild trust and academic freedom. This will secure the pipeline of science with and for society, now and for the future.

The stakes are clearly high. If academic freedom continues to be eroded, the pipeline of science that is needed to produce the research we need to address the urgent crises we face, will continue to be reduced. It is possible to suggest that to preserve that pipeline and its relevant and tangible benefits to society, there is a need to regain trust. We need to rebuild and regain trust between society and science in a way that echoes the original social contract for science. This will ensure the future of institutional autonomy and self-governance, and therefore academic freedom which in turn will ensure the survival of a sustainable and thriving science ecosystem that engages meaningfully with society.