



Academic Freedom and Responsibility Toward Society – Who Decides What Science We Do?

Proceedings of the 12th Forum on the Internationalization of Sciences and Humanities

November 11-12, 2018 • Berlin



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| by Hans-Christian Pape and Katharina Boele-Woelki

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Preface

Dear Reader,

Academic freedom is a necessary precondition for science and research to thrive. With the rise of illiberal and autocratic governments in several countries around the world, academic freedom is increasingly under threat. The consistently high demand for fellowships in the Philipp Schwartz Initiative, a programme which the Humboldt Foundation launched in 2015 with the support of the Federal Foreign Office to provide temporary shelter for at-risk academics, is sad testimony to this.

But academic freedom involves more than the absence of censorship, forced dismissals and imprisonment of academics. Worrying trends such as growing dependence on third-party funding, increasing pressure to produce publication output or being expected to demonstrate immediate impacts may also restrict the freedom of researchers. At the same time, taxpayers have a legitimate right to demand accountability from scientists and scholars whose research they ultimately fund.

In November 2018, the International Advisory Board of the Alexander von Humboldt Foundation convened the 12th Forum on the Internationalization of Sciences and Humanities under the title "Academic Freedom and Responsibility Toward Society – Who Decides What Science We Do?". The Forum discussed various aspects of academic freedom in a wider sense. Leading scholars, science managers and representatives of funding organizations from across the globe gave their input to these questions.

This special supplement documents the proceedings of the Forum and makes them available to a wider audience in Germany and beyond. We hope that the contributions in this publication spark further debate within the global academic community.



Hans-Christian Pape President of the Alexander von Humboldt Foundation



Katharina Boele-Woelki Chair of the International Advisory Board of the Alexander von Humboldt Foundation

Sincerely,

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12th Forum on the Internationalization of Sciences and Humanities

"Academic Freedom and Responsibility Toward Society – Who Decides What Science We Do?"

Central Points of Discussion

 Academic freedom is essential in order for scholars and scientists to pursue their societal mission – but society has a legitimate right to see its interests taken into account.

The primary responsibility of scientists and scholars is to provide society with the best possible knowledge. Researchers can only fulfil this responsibility to the best of their ability if they are allowed to go about their research as freely as possible. But that does not mean that they should be totally unaccountable to citizens or the democratically legitimated actors who represent them.

2. The harm that infringements of academic freedom cause extends beyond the individual scientists and scholars whose academic freedom is infringed, or the individual institutions whose institutional autonomy is violated.

When the academic freedom of individual scholars and scientists is infringed, or when individual institutions are under attack, the academic community – including funding organizations – must protest and do their utmost to help the affected individuals and institutions. In addition, the wider implications of such severe infringements of academic freedom must not be forgotten. Academic freedom is a measure of general freedom, and its infringement causes harm to all members of society, be they students or citizens benefitting from the knowledge created by researchers.

3. Self-censorship within academia is probably more widespread than the censorship visible to outsiders. Increasingly, scholars are 'at moral risk'.

International outrage at infringements of academic freedom is often concentrated on a small number of high-profile cases when academics are fired or imprisoned. This leads to underestimation of the global threat to academic freedom. There are justified reasons to assume that scholars and scientists in countries with authoritarian governments increasingly resort to self-censorship in order to avoid sanctioning. But also in non-autocratic societies, researchers are 'at moral risk' when they choose the path of least resistance.

4. Threats to academic freedom do not just emanate from authoritarian governments.

There are worrying developments within the global science system which limit individual researchers' freedom to decide what to research and how to go about it. Examples of such developments are growing dependence on third-party funding, the pressure to succumb to the logic of quantitative measures of publication



output, or funders requiring the demonstration of immediate impacts. When these developments are discussed in other contexts, their effects on academic freedom should be considered as well.

 Academia has to become more acknowledging of its embeddedness in democratic structures – including all the participatory aspects characteristic of democratic processes.

Scientists and scholars must enter into a dialogue with society, remain open-minded to justified challenges, even from non-specialists, and keep debating the role science and research should play within societies. This is necessary in order to secure academic freedom in the long run. Simply showing research results to the public or trying to educate the public on how science works will not suffice, even though of course it remains important to foster scientific thinking within society (especially in children).

Academic freedom is a prerequisite for science and scholarship to thrive.

This holds true despite differing definitions across societies of what academic freedom should entail.

7. In the short run, one of the best ways to secure academic freedom may lie in fostering international networks of scientists and scholars.

Networks can lend protection and empowerment to individual researchers whose academic freedom is infringed. The cross-border nature of international networks can grant freedom from encroachment by national regulation, and can enable individuals by spreading resources, such as data or technical equipment, that may otherwise not be accessible to them.

The International Advisory Board of the Alexander von Humboldt Foundation will continue to explore the power of academic networks.

Restoring Trust in the Media, a Vital Task



Pierre Haski President Reporters Without Borders Paris, France

The worlds of science and academia on one hand and of the media on the other have various points in common, despite obvious differences. One of these is the issue of trust, without which we could not function in our respective spheres.

I have been a journalist for more than four decades, working in different parts of the world, in contexts where the ground was never secure, where, as we know, truth is the first casualty of war. I have been based in the parallel universe of apartheid South Africa, in the Middle East with its deeply rooted conflicting mythology, as well as in booming China, where the truth is what the propaganda department has decided. Compared with what we now face, these were predictable and easy obstacles to navigate. It didn't feel like it at the time, but overcoming these types of roadblocks is what a journalist is trained to do.

"[...] a journalist, or for that matter a scientist, is not trained or simply not prepared to face the kind of distrust we are now confronted with."



However, a journalist, or for that matter a scientist, is not trained or simply not prepared to face the kind of distrust we are now confronted with. Scepticism and distancing oneself from authority, whatever authority, are a healthy reaction in a democracy. But it also implies having common ground and fact-based references.

"I was always assured, as a journalist, that establishing the truth [...] was enough to close a debate. Interpretation remained free, but facts were facts. This has no longer been the case"

Is that period over? Have we entered what has been called the "posttruth" era – a concept that is not new but made its way into dictionaries and our lives with the US elections of 2016?

I was always assured, as a journalist, that establishing the truth, a truth, part of the truth, based on proven facts and hard evidence, was enough to close a debate. Interpretation remained free, but facts were facts. This has no longer been the case since a White House advisor quite seriously coined the expression "alternative facts".

As a report by the French council on scientific research earlier this year commented, "This is a new challenge to rational debate, whose methods of communication (rebuttal and demonstration) are losing their hold among the general public in response to this kind of 'intellectual irresponsibility' that all fake news has in common."1

"Fact-checking has proved necessary, but unable to convince those who had lost

the rise of social media. The big debate, then, was that everyone could be a journalist as long as you had an internet connection. We thought trust in the 'system'." that in order to maintain the quality and credibility of the news, we needed to have journalistic methodology applied to non-journalists' writing. Anyone could write and be published, but the copy would undergo the same verification and validation process. Confronted with the flood of fake news, we have been naive enough We called it "information with three voices": journalists, experts and citi-

to think that 'fact-checking' would be sufficient. It started in the US, with dedicated platforms that demonstrate, using references, facts and figures, that a news item is true or false. This methodology spread around the world and now every major media organization has its fact-checking department, probably the busiest of all. Fact-checking has proved necessary, but unable to convince those who have lost trust in the 'system'.

How did we get to that point? The experience made by the media has some relevance to science, despite the obvious differences in our operations, economic environment, and relations to the public.

We are undergoing three simultaneous crises in the western media that contribute to the current situation:

- 1. There is the collapse of the old media model, with the rise of the internet, and the never ending transition to a new model that has yet to stabilize itself;
- 2. There is the crisis of confidence in journalism, which started before the internet era, and which has affected the trust of the public. I'll return to this;
- 3. And there is the wider challenge to intermediate groups, such as political parties, trade unions, and to the broader world of expertise, which has fallen from its pedestal.

Let me recount a personal experience. In 2005, I used to work for the French daily Libération, a trendy newspaper that had Jean-Paul Sartre as its first editor in the immediate post-68 era. Libération has had a turbulent life, and in 2005 had to lay off dozens of people as its sales and advertising revenue went down. No-one understood then that Libération was just the first victim of what is now known as 'the crisis of the press'.

In 2007, with some of my colleagues, we decided to leave Libération to start an experiment online. We launched the first 100% web-based media outlet in France, named 'Rue89' ('Street89'), 89 being a reference to the French revolution of 1789, but also to the beginning of the World Wide Web in march 1989, six months before the fall of the Berlin Wall. It sounded like a good figure!

zens. There would be an open option for comments and the conversation below a story would be an integral part of the reading experience. It was very successful in the first few years, and attracted quality contributions from non-journalists, including academics who enjoyed the absence of barriers between journalists and non-journalists in what remained a professional media environment.

Our concept was a break with the past: participatory journalism. We ac-

cepted the idea that journalists had lost their monopoly on speech, with

We had not anticipated what has now become the rule – the transformation of social media into battlefields, into open fields for unashamed partisan sabotage or campaigning, fake news, hatred, and a permanent challenge to any fact-based information. We became flooded by anonymous trolling from various causes that effectively disrupted the website. Bad comments chased the good, insults discouraged any non-journalists from contributing (what was the point if it only led to harassment?), and we were unable to find an answer. Yet this was only a taste of things to come.

We already realised five years ago that you could no longer have a normal conversation on issues such as immigration, religion, or economic policies without ending in pointless wars of words. We know it now with the rise of populist movements across the western world, defying political and cultural elites. What was initially a strategy to occupy ground has led to the birth of a polarised and divided world, and the collapse of trust.

News organizations have been slow to wake up to the phenomenon, even after the US election. What do we do about this chaotic situation? Without going into the political question, although there's a lot to be said about how the economic globalization of the past decades has produced unbearable territorial and social inequalities, we ask ourselves: How do we deal with the disappearance of trust in the information system? And can our democracies survive without a reliable and trustworthy news environment?

There are two options that we think are dangerous. One is to let governments decide, as we know that the temptation to control is always stronger. In France, Emmanuel Macron's government has introduced a fake news law that is in the final stages of approval in Parliament. The initial motivation was the spread of fake news and disinformation about Macron himself during our election campaign in 2017, and that came mainly from the alt-right in the US. 'Pepe the Frog' came up on



the French internet, with badly translated catchphrases. There was also the lesson from the Russian-sponsored messages on Facebook during the US campaign, and the French government decided more transparency was needed during election periods. Fair enough, it's the role of a government.

But then an anti-fake news mechanism was added, under which a judge would have two days to decide if a news item on social media was true or not. This is unreasonable, and we told the government so. Pro-government MPs privately admit it is not reasonable, but they can't sink a government initiative that may never be implemented.

Governments have a role to play, but we should not delegate that responsibility to them.

The same applies to the platforms. I don't want Mark Zuckerberg to become the editor of the world, or even half of the world, with his Chinese counterpart for the other half! This is dangerous, as we've seen how careless Facebook or YouTube, which belongs to Google, for example, have been with their users' data.

So if we don't delegate to governments or to platforms, what can we do? Civil society should act in our view.

Reporters Without Borders, which I chair in France, is a Paris-based international organization defending freedom of the press. In April 2018, it launched an initiative that is now underway and has received a positive response in Europe and in the US. It's called the Journalism Trust Initiative (JTI).

The idea is to create a standard for quality journalism. The standard will specify criteria for what constitutes quality, trustworthy journalism, such as transparency about media ownership, the number of journalists employed, policy on rectification of errors, the role of robots in production, and so on. The list is currently being drafted by an international commission. After about a year, a standardization institute – the European Committee for Standardization – will be able to independently award the label, in the same way it already awards standards for electricity or for corporate social responsibility.

Platform such as Google and Facebook are associated with the process, and negotiations will take place to see how they can integrate the standard in the algorithms that determine what is in your news feed. Today, known sources of fake news manage to be among the first results on Google searches or in Facebook feeds, but tomorrow, quality journalism could be rewarded. Today, if you want to make money on the internet, you produce trash. Tomorrow, there could be an incentive to produce quality.

"We are condemned to experiment and see how we can restore the connection to readers"

There is no unanimity among journalists on such an idea, and some people resent submitting to a standard. But what is at stake is restoring trust in journalism, and reducing the breathing space for fake news.

We are condemned to experiment and see how we can restore the connection to readers who have come to see the media as part of an elite that only cares about the dominant groups of the population. This is not an unreasonable criticism, to be fair. The recruitment of journalists has changed with time. This used to be a profession where anyone could enter and learn on the job, and that has largely disappeared with the rise of journalism schools and a better educated profession. But the price has been that all new journalists have the same social background, with far less social and ethnic diversity, although this is changing.

As Hannah Arendt said, long before the internet, in an interview with the New York Review of Books in 1974:

"The moment we no longer have a free press, anything can happen. What makes it possible for a totalitarian or any other dictatorship to rule is that people are not informed; how can you have an opinion if you are not informed? If everybody always lies to you, the consequence is not that you believe the lies, but rather that nobody believes anything any longer. This is because lies, by their very nature, have to be changed, and a lying government has constantly to rewrite its own history. On the receiving end you get not only one lie – a lie which you could go on for the rest of your days – but you get a great number of lies, depending on how the political wind blows. And a people that no longer can believe anything cannot make up its mind. It is deprived not only of its capacity to act but also of its capacity to think and to judge. And with such a people you can then do what you please."

> "[...] the collapse of a truthbased, open public space is a threat to all of us."



This, for me, is exactly what we are experiencing in western societies. And that's what we need to prevent, whether we work in the news industry, science or academia, because the collapse of a truth-based, open public space is a threat to all of us.

¹ CNRS Ethics Committee (2018). 4. Fake news, social networks and conspiracy theories. Comets. Opinion no. 2018-37, p. 5.



"When academic freedom is attacked, what is lost is not only the individual right to science but the right to science as a collective."

Yudit Namer

Academic Freedom in the Age of the Anthropocene

On October 11, 2018, I was, like many others, reading in horror about the murder of the journalist Jamal Khashoggi in the Saudi Consulate in Istanbul. A few minutes later, I opened an e-mail from Professor Mai Al-Nakib, a scholar and writer in the College of Arts at the University of Kuwait. She told me that the Kuwaiti government had banned her book of stories, The Hidden Light of Objects, one of over 4300 books so maltreated there in the last five years.1

Catharine R. Stimpson

Chair Scholars At Risk Network Board New York, USA



"[...]freedom of thought in general and academic freedom in particular are far more than an abstraction and far more than a legal theory."



I felt sick. This visceral response to the dismemberment of thinkers and thought is wholly appropriate. For freedom of thought in general and academic freedom in particular are far more than an abstraction and far more than a legal theory. They contribute to the health of the living, interconnected, embodied networks of society today. Violating freedom of thought, whether through murder or censorship, is toxic to these networks. It bleaches them of creativity, of a plurality of voices, and of the ability to educate the next generation of students, no matter what their potential careers or personal inclinations might be.

Each year, the Academic Freedom Monitoring Project of the non-profit organization Scholars at Risk publishes Free to Think, a report about violations of academic freedom during the past year – most recently from September 1, 2017, to August 31, 2018. The victims are faculty, students, and administrative personnel. We cover only some of all incidents involving attacks on higher education. Nor do we systematically treat censorship. Nor can we even begin to measure self-censorship.

However, the report contains evidence and symptoms of a global crisis. We analyse 294 reported attacks in 47 countries. Turkey continues to be an egregious setting. Attacks can be against hundreds of people who are together at a peaceful demonstration. It gives me no pleasure to say that the SAR report includes tensions in the United States. More specifically, we find 79 violent attacks that resulted in death and injuries as well as the disappearances of individuals; 88 imprisonments; 60 prosecutions; 22 losses of position; 15 impositions of travel restrictions; and 30 'other'. We note with grave concern the detention at 're-education camps' of Uyghur students and scholars in China's Xinjiang Uyghur Autonomous Region.

Many of these violations extend painful historical traditions. Political and religious authorities have long punished figures they have decreed dangerous. Need I evoke Socrates? Again and again, I am dismayed by how thin-skinned, how tremulously sensitive, many rulers are to any criticism of their rule or their precious selves. At once arrogant and insecure, they apparently need and want nothing less than fulsome praise and obsequious compliments. They demand, not honesty, but hosannas.

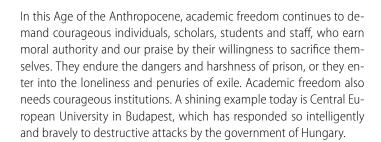
However, academic freedom is now an ideal and a principle in the Age of the Anthropocene. As many people know, the term 'Anthropocene' came into use in the mid-1970s. It signifies a contemporary epoch in which humans and their activities are the dominant influences on earth's geology, environment, and 'non-human' species. Because of space travel, those influences extend to the moon, Mars, and beyond. People disagree about the beginnings of the 'Anthropocene.' It might have been the agricultural revolution. However, many add the term 'The Great Acceleration' to show the greater and greater power of humans after 1945.

In this Age, authoritarians, whether state or non-state actors, have even more to fear from academic freedom and thus conclude that they have more that they must control. For E-technologies, which authoritarians also use, enable fresh ideas to zip around the globe as fast as servers and networks permit, as fast as a Tweet can fly. What if Voltaire or Mary Wollstonecraft or Kant had been able to post a blog? Authoritarians must also confront the inexorable persistence of modern ideas about tolerance, dignity, freedom, and recognition of the Other. Voltaire, Wollstonecraft, and Kant, even if blogless, helped to articulate these ideas for the 21st century. The exact identity of the Other varies. The Other may be the racially different, the ethnically different, the sexually different. The Other may be the immigrant at a nation's borders. Whatever the particular identity, authoritarians deny him/her humanity, dignity, personhood – often for political gain. Such demagoguery is a deep stain on United States democracy under the presidency of Donald Trump.

In complex ways, the moral and pedagogical commitment to the diverse/inclusive campus has led to a current argument about academic freedom, derisively called the 'snowflake' issue, especially in the United States. We are struggling to decide, if we can, how much freedom campuses should allow for disparaging speech and trolling about campus members whose history includes the status of being a once despised Other and part of a once marginalized and excluded group. Think of the treatment of African-Americans. Such campus members ask why freedom of speech should protect speakers who wish to return them to the status of the despised Other.

Still another feature of the Age of the Anthropocene is the reality of climate change. It is more than an inconvenient truth. Globally, it is a frightening truth. Recently, in an undergraduate class I teach on the "University from Athens to corporate ethos" (all in one semester), I asked my students what made them most anxious. Was it nuclear war? We were reading materials from the 1960s. No, they said, it is climate change. As a result, thinking about climate change must deal wisely, clearly, and empathetically with the realities of fear. Otherwise, these realities may lead on the one hand to denial and on the other hand to paralysis. Moreover, in a neo-nationalist political moment, climate change asks us to think beyond national boundaries and borders. Rising temperatures do not respect them. Rising seas, carrying no passports, wash over all the lands and littorals before them. In brief, our truth-tellers about climate change must both help to dispel fear and be able to speak across borders. As a result, such truth-tellers challenge authoritarians, as well as powerful economic interests, who rule through whipping up fears, including the loss of a 'pure' national identity. Truth-tellers must then be ridiculed, or dismissed as greatly deranged rather than soberly realistic, or defunded, or silenced. When this occurs, the ability of individuals and societies to respond to climate change responsibly is wretchedly diminished.

"In this Age, authoritarians, whether state or non-state actors, have even more to fear from academic freedom and thus conclude that they have more that they must control."



How might we cultivate the fields of courage? I have one proposal, which might seem either modest or controversial, or both. Today, higher education is consumed with issues about and measures of status. This takes at least two forms, both of which may have very real material consequences. The first form is competitive rankings that a nongovernmental actor, such as a newspaper, conducts. These rankings have their critics, but they seem as impervious to death as zombies.

I have seen normally reserved men and women wail when their professional school dropped from 4 to 5 in national rankings. In contrast, such women and men jump with joy when their school has risen from 5 to 4. The second form is competitive rankings that a government conducts in order to determine the comparative excellence of the institutions under its supervision. My proposal is this: let us make academic freedom one criterion of quality in both kinds of rankings.

Of course, the question of how to measure academic freedom, how to quantify it, is a thorny one. Exploring it has both intellectual and political perils. I have seen statements from particular universities about their devotion to academic freedom that seem impeccable, until one comes across a caveat, lurking towards the end of the statement, that academic freedom does not cover denigration of a ruling family, or of a state religion, or of public order. However, the same skills and talents that have gone into designing the rankings can surely engineer another criterion of quality for them.²

I have a plea as well as a proposal. I worry about another kind of scholar at risk. This is a scholar at moral risk. A scholar at moral risk has a comfortable, secure job at a university, or think tank. He or she might offer the occasional word of praise to the scholars at risk whom the SAR report, Free to Think, documents. I am sure that some learned people in the papal court in 1633, when Galileo was subjected to a formal Inquisition, whispered that they thought Galileo might have "something to say," but refused to confront his berobed Inquisitors openly. The responsibility of the scholar at moral risk now is to come to the serious aid of those in far greater danger than he or she, namely, those scholars at physical risk. The scholars at moral risk can give money, engage in acts of advocacy for academic freedom, practice interventions, help find positions for scholars and students in exile. We are a part of a global community, admittedly uneven, whose mandate is to seek truths, engage in inquiries, and teach. Surely the dues for claiming membership in this community are no less than mutually assured aid for each other, especially if one of us is endangered, and mutually assured commitment to our grounding principles.

Jamal Khashoggi is dead. The task of the living is to mourn him and to honour his memory and that of other murdered journalists. The living must also ask hard questions about his murder, and refuse to accept the lies and deceptions of the authoritarians who seek to cremate the truth about the carnage of a man's blood, brain, and bones in the Saudi Consulate in Istanbul. However, Mai Al-Nakib's book can be bought outside of Kuwait and pressure brought to break the ban within Kuwait. A task of the living is to seek to scotch the poison snake of censorship wherever that snake strikes. Surely, these tasks, and responsibilities, are well within our Anthropocenic powers.

¹ Al-Nakib has written about the experience of being censored in Mai Al-Nakib, "Upon Learning That My Book Is Banned in Kuwait," World Literature Today (October 10, 2018). https://www.worldliteraturetoday.org

² Some scholars are now working on an academic freedom index that might be adapted as a criterion of quality. I think of Katrin Kinzelbach at the Global Public Policy Institute in Berlin. See, too, Jannis Grimm and Ilyas Saliba, "Free Research in Fearful Times: Conceptualizing an Index to Monitor (sic) Academic Freedom," Interdisciplinary Policy Studies, Issue 3 (1) 2017. http://siba-ese.unisalento.it/index.php/idps

Katrin Kinzelbach

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Assessing Academic Freedom Infringements and Their Severity

Violations of academic freedom take very different forms. At country level, they include higher education laws which limit the autonomy of universities, politically-motivated fiscal restrictions and the criminalization of professional organizations. At university level, they can mean classroom surveillance through recordings or informants, political control of budget allocations, search committees, and student bodies, as well as restricted access to academic literature or the confiscation of research materials. Finally, at the individual level, they comprise loss of position, political imprisonment, or forced exile.



How severe are such infringements around the world today? This question is very timely and highly pertinent, yet difficult to answer. When assessing severity, we first have to clarify our yardstick. One option is to compare current practice to an international standard. The United Nations' legally binding International Covenant on Economic, Social and Cultural Rights includes a short reference to scientific freedom, but it does not define exactly what this freedom entails. In 1997, UNESCO issued a Declaration on the Status of Higher Education Teaching Personnel which includes a definition, but the Declaration is not legally binding. Also, it focuses on teaching personnel and pays too little attention to other members of the higher education community, notably students and non-teaching academics.

Instead of comparing academic freedom today to the ideal of a poorly defined international standard, another option is to make historical comparisons within one country so as to trace how limitations of academic work have changed over time. This approach would do justice to country-specific characteristics, but it would not clarify the state of academic freedom around the world.

"[...] we lack systematic data about violations of academic freedom. None of the existing university indexes includes a measure for academic freedom."

When it comes to conducting cross-country comparisons, by far the biggest problem is that we lack systematic data about violations of academic freedom. None of the existing university indexes includes a measure for academic freedom. Existing data typically cover the tip of the iceberg: higher education laws that do not sufficiently protect university autonomy; and the problem's darkest corner, the imprisonment of scholars, killings and forced disappearances.

The organization Scholars at Risk has made the most extensive effort to document specific instances of academic freedom infringements to date, but its efforts are limited, among other factors, by monitoring capacity constraints. There is, therefore, an unknown number of unreported infringement events.

What is more, we cannot be sure about the nature of unreported infringements. Most probably, they include hard and soft forms of repression, and not all of them can be captured by events data. Soft forms include classroom surveillance, denial of access to libraries, archives and online journals, censorship of teaching curricula, and also the use of universities for the spread of political propaganda. Most important of all, soft repression in the university sector includes institutionally induced self-censorship. These types of infringements are extremely difficult to study and assess empirically, yet it is very likely that they are more widespread than threats to physical security and personal liberty.

Where self-censorship is widespread (because universities' incentive structure supports self-censorship or because the risk of severe retaliation is high), there are comparatively few cases of scholars' imprisonment or forced exile. This is because scholars are socialized into complying with expected behaviour. It is important to understand that events data on imprisonments or forced exile and even university closure cannot tell us how severe a situation actually is. Zero reported events could mean that the situation is very good – or it could mean that the situation is already very bad. For a comparative assessment of academic freedom infringements we need qualitative judgements, and these qualitative judgements should follow a common framework of analysis.

We may not need states to adopt a detailed and internationally binding definition of academic freedom. Scholars themselves can and should define the freedoms they need to conduct academic work. They can and should take charge of developing assessment criteria. The most powerful way of doing so would be to develop a new index on academic freedom, one that assesses infringements worldwide. This data would complement and challenge existing university rankings.

A new global index on academic freedom can change the way scholars interact across borders, strengthen a global community that is committed to academic freedom, push back authoritarian influence in the university sector, and protect universities from being coopted for the purpose of political repression.¹

It would also allow us to answer the question of how severe infringements of academic freedom are today.

1 See www.gppi.net/forbiddenknowledge for more details.





Rethinking Academic Freedom in a Changing Academic Landscape

Sijbolt Noorda

President Magna Charta Observatory Bologna, Italy



"Freedom in research and teaching is the fundamental principle of university life, and government and universities, each as far as in them lies, must ensure respect for this fundamental requirement. Rejecting intolerance and always open to dialogue, a university is an ideal meeting-ground for teachers capable of imparting their knowledge and well equipped to develop it by research and innovation and students entitled, able and willing to enrich their minds with that knowledge."

This is the English translation of one of the central statements of The Magna Charta Universitatum that hundreds of university rectors signed in 1988 at the 9th centennial of the University of Bologna. It states and reflects a strong academic tradition of freedom and dialogue. At the same time it clearly qualifies the beneficiaries of this freedom and dialogue: it speaks of capable and well-equipped teachers and of students who are entitled, able and willing to enrich their minds. A university is an ideal meeting-ground for the qualified and the willing.

It is unsurprising that the authors of the 1988 declaration felt the need to qualify and be precise. All too often 'academic freedom' is not very well defined. It easily becomes a fuzzy everything-goes kind of motto. As a consequence, invoking academic freedom for protection or protest often does not really help, apart from extremely restrictive situations or infringements. Similarly, comparative studies on the real life situations of academic freedom in various settings are rarely conclusive. An even more troubling result of this conceptual imprecision and lack of theoretical foundation is the observation that in the name of academic freedom, nations and individual institutions make very different, sometimes quite contrasting policies. Frequently the concept is being narrowed to the extent that only the most flagrant violations are detected (usually elsewhere, in 'difficult' countries) and not the much slower and smaller scale infringements (usually at home, in familiar situations).

"Solemn declarations and law-making

simply are not sufficient. Commitment, debate, and solid analysis are crucial."

So simply invoking academic freedom (or any other privilege for that matter) will not be good enough. More is needed. For universities in the present day and age I see three key challenges.

Firstly, the challenge of how to actually live and maintain the openness and tolerance that used to characterize the university. This is about a crucial openness to different opinions and positions, to debate and solid argument, both in the domain of scholarship as well as in the societal context universities are part of. Ideally universities are lighthouses and examples for this kind of attitude and arrangement, leading the way for society instead of going with the flow of group exclusivity and bubble comfort that seems to characterize so much of today's societies.

The second main challenge I see is immediately connected to the first. The university often is, or has become in many places, rather a kasbah with a host of individual shopkeepers or a sports ground for individual career contests than a collaborative community with shared ideals and values. If I am correct in this observation, it would be a number one priority to seriously work on this, to create or re-create academic communities where basic values are being discussed and shared – and not just solemnly remembered and declared on festive occasions or used as a license to individual self-promotion.

This brings me to a third task. Freedom and academic freedom are not self-serving qualities or licences. They are meant to serve a larger purpose, like the purpose of responsibly and responsively serving society. In our day and age, university engagement with society implies answering the question: serving society, which society? Where once societies more or less convincingly embraced the concept of the common good, they now seem to be falling apart into many separate groups, each with their own identity, all aspiring towards recognition and self-preservation. The urgent task of any university is to position itself in such fragmented societies. Will we be just another partisan institution, living in our own bubble, seen by others as a well-established, elitist community mainly serving its peers? Will we above all be focusing on our ranking among our 'competitors' for reputation and funding? Or will we be serving society in more balanced, open, and responsive ways?

Identity fragmentation, erosion of trust in independent institutions and expertise, and a clear decline of positive impact of education on the wellbeing of all must clearly be added to the list of grand challenges facing human civilization. At the end of the day, universities will have to demonstrate their positive contribution to society at large, or else they will see their position of trust and reliability erode even further and

Whether or not nations have included autonomy and academic freedom for universities in their constitution doesn't matter. Solemn declarations and law-making simply are not sufficient. Commitment, debate, and solid analysis are crucial. This is exactly why the present Magna Charta Observatory with many of its supporters engages in the worldwide Living Values Project. It is designed to invite individual universities to seriously work on their value base, and seriously consider and reconsider their mission towards the societies they are to serve. University values are of three kinds. Some are literally fundamental, they enable universities to be what they are supposed to be. Most important of these are autonomy and academic freedom. Other university values are about the operational functioning of a university, the quality of our work. Among these are integrity and fairness. A third set of values I call social values. They are about the responsiveness of the university to society and the social quality of our decisions on access, on the priorities of our research and the equity of our outreach. The three belong together; they should not be separated or put in opposition or hierarchy to each other.

In my view, getting these values right is a crucial task for those of us who would like to see their universities maintain and regain their relevance to society rather than see them be marginalized.

Competing Narratives of Academic Displacement

Yudit Namer

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Each case of a teaching academic forced to mobilize is connected to tens of undergraduate and graduate students stripped of the opportunity to co-create within a carefully co-constructed academic environment. Specifically at universities in Turkey, where departments are chronically understaffed, the forced mobilization of academics has affected a much higher number of people than is commonly acknowledged. When 15 universities were shut down by statutory decree under the state of emergency law in July 2016, this meant the demolition of painstakingly crafted academic 'homes', the endangerment of affective investments in relationships and networks, and the physical and emotional uprooting of thousands of students. Yet in discourses of academic displacement, the focus tends to be on individual academics rather than the cascading nature of these losses.

The narratives of students left behind are often neglected. To fully grasp the impact of attacks on academic freedom, those narratives of loss need to be brought to the foreground. The negotiation of these losses and the resultant coping mechanisms impact academic communities and society as a whole.

Different choices await the representative scholar in exile when it comes to portraying losses. One can focus on the 'human interest' side of the threat to academic freedom, outlining personal tragedy. One can try to raise awareness of the plight of the 'left behind', who cannot leave or choose not to leave even when facing civic death. Or one can discuss how the initiatives put in place have changed the course of the exiled's career, voicing gratefulness. I prefer, instead, to numericize



"[...] in discourses of academic displacement, the focus tends to be on individual academics rather than the cascading nature of these losses. The narratives of students left behind are often neglected."

the lost relationalities of one scholar in exile. The first-person singular pronoun is not a sign of self-centeredness, but a tool to concretize the argument, as well as to lament personal losses.

What has been lost when hundreds of academics were dismissed from their positions and entire institutions were shut down to be re-opened as ghosts of their previous selves? At Gediz University, I was the advisor of the first-year undergraduate students about to start their second year, a group of 80 people. There I was teaching some of the clinical classes of the third and fourth years, around 140 students. I also had the pleasure of discussing psychodynamic psychotherapy and ethics in clinical psychology with a graduate class of ten, five of whom were planning to write their graduate theses with me. Psychotherapy was my initial calling, and at the time of my leaving Turkey, I had a parttime practice with two active psychotherapy processes. Throughout my ten-year vocation as a psychotherapist, I had the privilege of sharing the 'analytical third' with more than 50 individuals, which of course means more than 50 people stripped of the right of continued care. With numerous training programs on LGBTQ+ psychology and feminist psychotherapy, as well as involvement in professional organizations such as the Turkish Psychological Association, the sheer number of the unique and irreplaceable (at least on my side) relationships that were threatened to be broken is overwhelming. It is imperative I add that I was an early-career scholar at the time I lost my place of work.

What remains of the relationships between the students and their former lecturers and/or advisors? We meet, through the ways with which technology allows us to meet, at every semi-virtual classroom

possible. Collective actions of solidarity, such as Solidarity Academies¹, where dismissed academics organize lectures, seminars and workshops in non-university public spaces and by doing so are rejoined with their students teach us alternative ways of engaging with science. Initiatives such as Off-University² provide emancipative spaces of learning by bringing together dismissed academics and students whose right to free movement has been restricted. These transnational attempts to re-form or revitalize relationships contribute to redefining academic partnership.

So that these multiple losses were not in vain, I wish to reiterate a call for strengthening academic communities to protect against attacks on academic freedom. I propose that when we speak of exile, we incorporate the demolished academic homes, the targeted affective investments, the physically and emotionally uprooted communities into our narratives. I suggest that programs address polyads of academic relationships, through explicit recognition even when financial support is not possible. What we produce, as those in exile, will always be shallow when not co-created with our students, mentors, clients, therapists, trainees and supervisors. When academic freedom is attacked, what is lost is not only the individual right to science but the right to science as a collective. I call for this hard-earned right to be reclaimed.

- 1 http://www.dayanismaakademileri.org
- 2 https://off-university.com/





"[...] a focus on the network effects of neutral international platforms and the global common good may provide the research funding community a way to select themes and topics and to maximize academic freedom and research impact even in the midst of increasing constraints."

Christopher Tremewan



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Funding Research, Funding Freedom

As a significant research funder, the Wellcome Trust exists to improve health by helping great ideas to thrive. Our political and financial independence allows us to support transformational research programmes that often raise ethical, regulatory, and social challenges. Although Wellcome does not offer funding solutions to protect research freedom specifically, the work that we fund cannot be conducted without a research ecosystem where ideas can be formed, explored, and exchanged freely. This essay looks at tools and instruments that funders can use to facilitate academic freedom from a structural perspective.

Setting agendas

In December 2018, the aggregated value of research portfolios funded by state agencies and private-philanthropic organizations was valued above US\$1.3 trillion. 1 Strategies to use this financial power vary substantially. While the majority of funders operate through funding calls opened to researchers according to specific eligibility criteria, others set themes, challenges, or make discretionary awards in light of pre-set strategic objectives.

Funding structures constrain researcher priorities and practice, while configuring the possibilities of future benefits derived from research investments. At a strategic crossroad, funders negotiate between allowing researchers to set agendas (response mode) or to articulate priorities that can potentially maximise the impact of their funding capacity (direct mode). Healthy research funding ecosystems offer plural funding modalities that avoid monopolistic relationships between funders and researchers. Such national and international funding ecosystems facilitate knowledge production under different funding regimes.

Decision-making and the diversity and inclusion agenda

In a recent editorial, Nature argued that "lab groups, departments, universities and national funders should encourage participation in science from as many sectors of the population as possible." The editor concluded that "the lack of diversity in science is everyone's problem." ²



Funding decisions distribute resources and establish power relations within research communities. Funders validate what counts as good research and endorse individuals that they recognised as capable of successfully delivering research programmes. Funding decisions create academic nobilities capable of mobilising power and symbolic capital. These decisions enhance, or restrain, the academic freedom of certain groups while excluding particular scientific practices from research canons. Therefore, staff and committee diversity play a vital role in shaping the future of knowledge production and understandings of the world.

Establishing diverse and inclusive funding bodies is financially, emotionally, and organizationally costly. Such teams tend to guestion established practices and may be less speedy in reaching consensus. Limited numbers of common social experiences may impose additional burdens into decision-making processes. Funding committees composed of members who share epistemic and socio-cultural traits reach agreements faster. However, such consensus may prove to be costly. Homogenous groups tend to be risk-averse and to undervalue new ways of practising scientific inquiry. While funders may privilege response mode as a tool to foster academic freedom, the capacity to pursue innovative ideas may be compromised by staff and committees where plural voices are inexistent.

Empowering researchers

Practising research requires rigorous and systematic methods to investigate the physical and social worlds. Philosophers such as Michel Foucault³ have extensively explored the relationship between knowledge and power. According to Foucault, knowledge is not neutral and determines power relations. Researchers investigating issues that may threaten political or economic regimes may face persecution, or other, more subtle forms of coercion. The incapacity of research independent of these forces compromises the production and circulation of rigorous knowledge. Countries where individual freedom is not limited by state apparatus may still witness situations where economic forces curtail academic freedom. The corporatization of universities, for example, might fall under this category.

Last year, Nicolas Bagley et al. argued that using litigation is a welldocumented strategy to intimidate researchers, disrupt academic freedom, and protect lucrative markets.⁴ Other forms of coercion may include freedom of information requests; public domain attacks on the conduct of researchers; and complaints to universities, journals and funders. Such activities may limit the capacity of producing rigorous and independent knowledge due to financial and psychological costs inflicted on researchers. Although the majority of donors do not underwrite liabilities generated during research activities, they frequently offer resources to train researchers to defend against these disturbing practices. Empowering researchers takes multiple forms. Funders can successfully influence the creation of supportive legal frameworks, provide leadership training programmes, and support scenario-based workshops where scholars prepare the navigation of coercive situations.

"Protecting academic freedom and building funding and research ecosystems where ideas can be developed unrestrictedly requires a diversified approach."

Protecting academic freedom and building funding and research ecosystems where ideas can be developed unrestrictedly requires a diversified approach. Funders play a crucial role in supporting researchers and their ecosystems. For this reason, funders must reflect on how agendas are set, how decisions are made, and how researchers are prepared to deal with adversities. Such reflections cannot be made in isolation but require a systematic approach to produce a diverse and inclusive funding ecosystem.

- 1 Dimensions (2019). "Dimensions." Retrieved 2 January 2019, from www.dimensions.ai
- 2 Anonymous (2018). "Science benefits from diversity." Nature 558(7708): 5-5.
- 3 Foucault, M. (1984). The history of sexuality. Harmondsworth, Penguin.
- 4 Bagley, N., et al. (2018). "Scientific trials—in the laboratories, not the courts." JAMA Internal Medicine 178(1): 7-8.





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Priority Setting in EU Research and Innovation Programmes

By their nature, European Union programmes support research and innovation that can best be tackled at the European level. This is the principle of European added-value. In the case of bottom-up frontier research, European added-value is achieved by creating competition at the continental scale. For objective-driven research, the programmes address problems whose scale and nature require a European critical mass in terms of resources, and crossborder cooperation.

Following a proposal by the Commission, itself based on extensive consultation and impact assessment, the content and respective budgets of the programmes on research and innovation are negotiated between the Commission, Member States and the European Parliament. The final decision on legislation is in the hands of the last two bodies.

With the programme Horizon 2020, running from 2013 to 2020, this led to the identification of seven societal challenges (on health and wellbeing, food security, sustainable energy, mobility, climate action, Europe in a changing world, and society), with a total budget of just under €30 billion, as well as support to industrial technologies (including ICT, space, and key enabling technologies), with a total budget of €17 billion





The Commission is mandated to implement the programme, and to prepare the calls for proposals, based on the legal acts. With the aim of maximising impact, these calls are prepared in generally two yearly cycles of strategic planning, using evidence from foresight, stakeholder consultation, expert advice, and alignment with political priorities. In this vein, in the last round of Horizon 2020, special attention is being given to climate action and the Paris agreement, the circular economy, digitization and industry, and the Security Union. Calls for proposals require consortia of partners from different disciplines and different sectors to work together towards solutions to the identified challenges.

In addition to strategic planning, the programme has been sufficiently flexible to allow the organization of calls in response to unexpected crises, for example to help develop vaccines for Ebola.

For the period 2021-2028, the Commission has tabled a successor programme: Horizon Europe. Here, support for impactful R&I will be taken a step further through a limited number of missions that will mobilize resources and stakeholders on portfolios of projects to achieve precise time-limited targets as well as via the introduction of a European Innovation Council.

At the time of writing, the Commission is in discussion with Member States and the European Parliament on the new programme. As a function of the final decision, a revamped strategic planning process will be put in place to help prepare the first calls for proposals. As in the current programme, this process will entail structured consultations with stakeholders, but with a stronger emphasis on engaging

with citizen groups and the public at large. This last component was shown by a high-level expert group chaired by Pascal Lamy (former chief of WTO) to be a key ingredient for not only raising the profile of European R&I in the mind of the public, but also in promoting greater impact and relevance in the research that is financed.

As for the new 'missions', the Commission has proposed to set up 'mission boards' consisting of around 15 specialists in the fields concerned, following an open expression of interest. The mission boards will advise the Commission, for example on the precise specification of the missions themselves, on the design of calls for proposals related to missions, and on the profile of experts for evaluating proposals. The identification of areas for missions is currently underway within the inter-institutional negotiations. By way of example, Professor Mariana Mazzucato, an independent expert advising Commissioner Moedas, has suggested for illustrative purposes missions on plastic-free oceans, and on carbon-free cities¹.

As now, the new programme will maintain large sections that will be essentially bottom-up, whereby applicants may submit proposals in any field. These areas concern in particular frontier research under the European Research Council, mobility and training actions under Marie Skłodowska-Curie Actions, and grants to companies for breakthrough innovation under the new European Innovation Council.

1 'Mission-oriented research and innovation in the European Union', Mariana Mazzucato, 2018, European Commission, ISBN 978-92-79-79918-1

Impressions

- IAB member Gerhard Wolf (Kunsthistorisches Institut in Florenz - MPI), Berthold Neizert (Max Planck Society)
- 2 João Rangel de Almeida (Wellcome Trust), Barbara Sheldon (Alexander von Humboldt Foundation), Samia Saad (Bill and Melinda Gates Foundation), IAB member Daya Reddy (University of Cape Town)
- 3 IAB member Joseph S. Francisco (University of Pennsylvania), E. William Colglazier (American Association for the Advancement of Science)





Christopher Tremewan

Secretary General Association of Pacific Rim Universities Hong Kong, China

Allocating Resources in the Race for Scientific Dominance: Research Funding and Academic Freedom

The topic of this Forum, 'Academic Freedom and Responsibility Towards Society: Who Decides What Science We Do?', is a question for my organization in two respects. First, how can research universities contribute to their societies if individual scholars have their intellectual autonomy circumscribed or are under personal threat? This issue is taken up already by such excellent organizations as Scholars at Risk and needs to be acknowledged and addressed more directly by institutions themselves.

Secondly, the academic freedom to address issues of the common good across international borders is fundamental to the wellbeing of our societies. I am here as the representative of a network of universities and I see potential for widening the scope of collaborations and extending the arena for cooperation on addressing the global common good as a key aspect of developing relationships of trust across national borders and preventing their obstruction.

The Association of Pacific Rim Universities (APRU) is compelled to view the many and increasing constraints on academic freedom and more intrusive national imperatives governing research funding, in this larger international context. We encounter the complex, geopolitical dynamic of both competition and collaboration by nations in the drive for technological leadership for national security and economic growth.







National funding regimes and the limits imposed or incentives provided by governments of various kinds – from democratic polities under threat of authoritarian white nationalism (e.g. US, Australia) to authoritarian, one-party states with their own ethnic essentialism (e.g. China and Singapore) – need to be viewed in their geopolitical context.

Paradoxically, this geopolitical environment increases the potential of networks for creating neutral international platforms for collaboration on global challenges, unofficial platforms that act as super-connectors, amplifying the impact of research on policy development and technical solutions at the international level.

"[...] the opportunities of leveraging the more democratic spaces offered by [international] platforms and common cross-border challenges have yet to be taken up at any scale."



While acknowledging negative developments from the increasing imposition of political or commercial imperatives on research funding in many jurisdictions, the opportunities of leveraging the more democratic spaces offered by these platforms and common cross-border challenges have yet to be taken up at any scale.

The proposition of this address is that a focus on the network effects of neutral international platforms and the global common good may provide the research funding community a way to select themes and topics and to maximize academic freedom and research impact even in the midst of increasing constraints.

Essential to the success of a network strategy is partnership with other sectors: multilateral organizations, the private sector, foundations and governments – partnerships where the collective efforts of our members can add unique value. APRU builds coalitions with cities, communities and NGOs. These collaborations are attractive to private funders.

Network Strategy

We are finding that a network strategy has a new salience in times of rapid change, turbulence and uncertainty.

A network with enormous reach and depth of knowledge is a huge resource especially as other forms of cooperation attenuate or disappear. While many bilateral relations are under strain, we remain a portal or connector that can be used to mobilize resources of knowledge and innovation to solve real problems and to advance understanding of our societies.

I remain optimistic because I know the positive value of what researchers do, their ability to bring many benefits to society and to solving so many critical challenges. I know it is possible to build lasting relationships of trust and cooperation across borders of nation, culture, discipline, gender, language, etc. even in times of tension and conflict.

At the same time, we need to be realistic that the sense of equilibrium or progress of past decades is not coming back. New configurations of power require us to construct new ways to build trust and to advance cooperation. There is much that is positive about the tools at our disposal as well as a new generation which is conscious of its responsibilities to secure the future of the planet.

Among the many positive effects that arise from our flexible and decentralized network are also effects that strengthen the academic freedom of our network members:

- We are a little more emancipated from institutional interests and national policy contexts.
- We are able to embrace new ideas and trends, establish new partnerships and processes and to explore.
- Our members are embedded in a wide diversity of contexts. Deep knowledge of this diversity, drawn together by a cross-disciplinary, cross-border network platform, is exactly what is required to deal with the complex challenges we face in our present polarized international situation.

This is why we are very interested to note a recent study which suggests that the massive expansion in international scientific collaboration over the last 30 years has produced a system of open networks that does not mirror geopolitical power. It is a system that is not directly subject to national governance regimes. These networks have apparently emerged partly in response to the complexity of global issues.¹

Therefore, in addressing the question of funders allocating resources in the midst of a race for scientific dominance and technological leadership, at least part of the task of maintaining and advancing academic freedom is creating the conditions for collaboration across borders. Our task must be:

- To aggregate at scale at the international level the social power of knowledge and innovation through neutral platforms;
- To speak to the kind of world we want to create, the kind of values we aspire to uphold in our societies and in the international community; and
- To secure the future through commitment to the global common good.

The full text of Dr. Tremewan's talk is available on www.apru.org.

¹ Caroline S. Wagner, Han Woo Park, Loet Leydesdorf, (2015) 'The Continuing Growth of Global Cooperation Networks in Research: A Conundrum for National Governments', PLoS ONE (10)7:e0131816.



"[...] truly opening up [science] entails sharing authority and control. It is less obvious who sets the agenda and who gets to define what constitutes a 'good outcome' of the engagement process."

Ayelet Baram-Tsabari

Michael Quante Professor of Philosophy and Vice Rector University of Münster Münster, Germany

Science and Democracy: A Dialectical Relation

Modern democratic societies are pluralistic in terms of different world views and conceptions of a good life held by their citizens. Besides this, modern societies also have complex structures both in terms of social institutions and technical organization. To be able to live together in such a society, scientifically based knowledge and technologies of different sorts are indispensable. Science is one of the most important preconditions to achieving a modern, democratic society respecting individual freedom and pluralism of lifeforms as its central values. This at least is one of my premises: personal integrity and autonomy are necessary preconditions for both democracy and science. Therefore, scientists and scholars have a duty to contribute to their society, defending such an open society and strengthening autonomy of individuals and justice.



This means that the central values on which science as a stance and method is based have to be brought into society on all levels and in all contexts. It also means that scientifically based knowledge has to be communicated to society in apt ways (its limits and fallibility included). To preserve or regain trust in science, models of participation (e.g. citizen-to-science) and transparent responsive strategies of scientifically based governance have to be developed.

On the one hand, this process has to be conceptualized as bi-directional: Science has to communicate its knowledge, but it also has to listen. It has to face the questions and problems framed by society and to address them properly. On the other hand, this process of being open to and engaged with society is a dialectical one: Science has to be autonomous (in terms of topics and methods) and independent (in terms of funding) to be able to contribute to a modern democratic society accordingly. If society and politics really want scientific counselling instead of only additional legitimization of what they already believe or want to do, scientists and scholars must be autonomous in their research (this includes the ability to identify their research topics themselves).

To be able to fulfil their role in this task, scientists and scholars have to be trained appropriately. This includes skills of communication, of value literacy and of being able to co-operate in interdisciplinary teams. None of the great and global challenges can be dealt with within one single discipline. Therefore, young researchers have to be trained to work in such interdisciplinary contexts. It is one of the universities' duties to develop suitable programs in which this is possible. In my mind this should not start too early since the necessary basis for working in interdisciplinary teams is a strong identity within one's home discipline. And this can be developed only in focused programs, not via mixing disciplines and methods directly from the beginning.

"[...] personal integrity and autonomy are necessary preconditions for both democracy and science."

Addressing the global challenges also requires transdisciplinary activities. On the one hand, we scientists and scholars have – or have to learn – to listen to what society tells us (although this is not normally framed in scientifically appropriate ways). On the other, we have to communicate scientific knowledge back to society, such that it can be understood by the public. The first challenge for scientists and scholars is to find ways to reduce complexity without making statements that are no longer backed by science. Maybe the even greater challenge for us scientists and scholars is to accept that society (including policymakers) will follow its own interests and rules in dealing with the scientific knowledge provided. We have to avoid the misleading picture of society and policymaking as limited versions of science and the presupposition that science is the only game in town.

Finally, acting transdisciplinarily requires being aware of different roles scientists and scholars have to take on and fulfil in these contexts. It is one thing to inform the public as an expert in your own discipline or as a member of an interdisciplinary group. But it is a very different thing to fulfil the duties of an engaged citizen who is scientifically informed. Mixing up these two roles would be a mistake since giving society scientific information and orientation and having a scientifically informed political orientation as a member of society are two different stances. Both are needed, but we should never conflate these roles, since we would then put science at risk of being nothing other than one party in the political and social debates or even conflicts we face today. Against this, we have to make clear that science should be a stakeholder for rational discourse and methodologically controlled reasoning. No more, but never any less!



Ayelet Baram-Tsabari

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Does Opening Up Science Ensure **Academic Freedom?** Three Views on Opening Up Science

Scientists and scholars can open up their own research in different ways. In science communication, these are usually termed dissemination, engagement or dialogue, and participation.

Dissemination is the most prevalent type of science communication. There are countless examples of successful dissemination where scientists share their research and findings with different publics – from Carl Sagan's Cosmos to David Attenborough's Planet Earth and from Carl Zimmer's blog to Elise Andrew's IFLScience Facebook page. Today scientists also learn how to tailor their messages to resonate with the interests and knowledge of specific audiences in science communication workshops and courses.

This type of opening up science usually attracts members of the public who are interested in the topic to begin with. Sometimes science events can cross this boundary and engage wider audiences. This happens for instance when a Nobel Prize laureate from a small or non-English speaking country is announced and both news media and Google searches escalate. As another example, the total eclipse of the sun viewed from North America in August 2017 attracted an amazing audience of 216 million adults – 88% of US adults viewed it either directly or electronically.²

However, more knowledge doesn't mean more support. No matter how much we disseminate, some topics where there is a scientific consensus still elicit social controversy among the public – such as evolution, the age of the universe, the safety and effectiveness of childhood vaccines, human responsibility for climate change, and others.

Although it is tempting to assume that individuals who do not accept the scientific consensus are anti-science or simply uninformed, the empirical data do not support this assumption. In studies on ideology-related



science controversies, gaps in opinions are typically greater among individuals with more years of formal education.³

This difference is mainly attributed to motivated reasoning, in which people seek, evaluate and recall information in ways that support their beliefs and commitments. Education and specific knowledge of the content area give people a more elaborate toolbox to interpret evidence in support of their preferred conclusions.

Clearly, communicating more scientific facts is sometimes not enough, or is even counterproductive. Some problems are better addressed by paying attention to economic, cultural and social considerations alongside the scientific aspects of the issue. Policy decision making, local knowledge, and political and moral constraints generated outside of formal scientific institutions also play a role.

"[...] truly opening up entails sharing authority and control."



The topic for this panel assumed that by opening up their own science, scientists ensure their own academic freedom. But truly opening up entails sharing authority and control. It is less obvious who sets the agenda and who gets to define what constitutes a 'good outcome' of the engagement process.

This is very evident in the case of research projects involving citizens in active scientific research. Citizen science projects have flourished in the past two decades. They are seen as a tool for both scientific endeavours and increasing the public's scientific literacy and engagement in science. Much citizen science is driven by the needs of the scientific community for more data collection and analysis. But this is not all that citizen science has to offer to society. Opening up science is also about non-experts who use scientific research for their own needs.

Citizen science projects can lead to educational, civic and social gains for participants and their communities, alongside many scientific

benefits. However, for this potential to be realized, citizen science projects need to extend public engagement beyond data collection efforts and provide opportunities for thinking more deeply about how the data relate to questions of personal interest to citizens themselves.

Scientists' engagement with these projects needs to change as well. Our recent research⁴ suggests that scientists' grasp of the aims and possibilities of citizen science vary dramatically and have some worrying trends such as complying with citizen science efforts merely to get access to funding.

It is important to understand that much of the promise of citizen science in promoting inclusion, building trust and understanding scientific methods rests on levels of engagement which are beyond scientists' educational efforts towards the public.

To conclude, I would like to challenge the assumption that by opening up their own science and scholarship, scientists ensure their own academic freedom. The meaning of 'opening up science', as I understand it, also includes a vision of science as serving social needs when setting priorities, which sometimes may not be the same as ensuring academic freedom.

- 1 Baram-Tsabari, A. and E. Segev, Global and local "teachable moments": The role of Nobel Prize and national pride. Public Understanding of Science, 2018. 27(4): p. 471-484.
- 2 Miller, J.D., Americans and the 2017 Eclipse: A final report on public viewing of the August total solar eclipse. 2018. p. 23.
- 3 Drummond, C. and B. Fischhoff, Individuals with greater science literacy and education have more polarized beliefs on controversial science topics. Proceedings of the National Academy of Sciences, 2017. 114(36): p. 9587–9592.
- 4 Golumbic, Y.N., et al., Between vision and reality: A study of scientists' views on citizen science. Citizen Science: Theory and Practice, 2017. 2(1).



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"Chai and Why?" – 10 Years of Spreading Excitement about Science

In India, there is a worrying disconnect between science and society. The role of curiosity-driven, basic research such as that done at research institutes like mine, the Tata Institute of Fundamental Research (TIFR), is rarely appreciated. Unfortunately, the scientific community, though mainly publicly funded, hardly engages adequately with the public, with outreach being a public relations exercise rather than a platform for discussion. Even for the general public with an interest in science, there is no forum to interact with scientists and ask questions. 'Science' is that difficult, boring but unfortunately compulsory school subject, where one memorizes facts to answer questions in an exam. School education does not convey the spirit of enquiry in science and present it as a way of understanding the world around us. Not surprisingly, many students drop science after high school. Science is often thought to be elitist, with scientists in ivory-tower research institutions.



I thought of adapting the well-known *Café Scientifique* format, where scientists chat with the public in an informal environment, to make it relevant in Mumbai. The word science itself was a problem – anything with science is perceived as being 'not-for-me' by the public. To make it user-friendly, I thought of the name *Chai and Why?* I could luckily try this out (a six-month experiment!) at Mumbai's popular theatre venue, Prithvi Theatre, and *Chai and Why?* was born in January 2009. The public response was phenomenal. We immediately went to a twice-amonth format (at a second mid-month venue) and in 2015 started an occasional third venue. We're still running without a break, and are just about to finish year 10 and 250 sessions!

The diversity of research at TIFR makes it easy to cover a range of topics relating to science and technology that affect our world – lasers, nanotechnology, space exploration, malaria, Alzheimer's disease, mega-scale science projects, solar energy, etc. Our focus is not science education; rather than 'teach', we just try to get people excited about science. For this, packaging and timing of the sessions are most important. The science behind headline news stories always works - not just gravitational waves and Higgs bosons, but even local newsworthy events make for interesting sessions. Over the years we have adapted as required. The Indian constitution mandates that citizens develop rational thinking and scientific temper. However, with the spread of social media, especially WhatsApp, a lot of fake news and pseudo-science is being spread, including, unfortunately, by people in positions of responsibility. People believe things like 'not eating during eclipses', 'everything natural is chemical-free', 'airplanes existed 5,000 years ago', and so on. Some recent sessions have addressed such issues.

We started with a mostly adult audience in mind, but realized that we attracted families with young school-going kids. We came up with special summer-vacation and festival sessions for youngsters, with several hands-on experiments. Sessions like science in the kitchen, origami and maths, science in sports, mathematics in folk tales, etc. have been extremely popular and enthusiastically received by children of all ages. Initially, the sessions were conducted by TIFR faculty. Increasingly, they are being done by graduate students, who are able to connect

very well with a young audience. *Chai and Why?* was an early user of social media to reach out to the community. Our Facebook page, with more than 8,000 followers, allows the public to interact with us.

But the most important impact of *Chai and Why?* has happened beyond the sessions. Based on the overwhelming response to the handson sessions, experiments that could be done with items available at home were packaged into an interactive science-demo "The Wonderful Laboratory called Home", which was very popular in several city schools. We realized that even simple experiments discussed in the textbook are often never practically done by the students or even shown at schools! We felt that these demos should reach out in local language to rural schools and under-served communities. The outreach team developed Hindi/Marathi equivalents of the "Wonderful Laboratory called Home", several fun chemistry experiments, and other modules. These lecture-demonstrations are hugely popular in schools in rural Maharashtra and reach out to almost 20,000 children every year.

"We owe it to the taxpayer who funds our research, and also to ourselves to reach out to students and build up the next generation of scientists."

The challenges facing our world require scientific research for their solution. A basic understanding of science is key to make rational personal and policy decisions. The huge disparities in economic and social standards, and the diversities of language across a large nation mean that there is no easy or unique solution. *Chai and Why?* is a tiny step in getting the Indian public excited about science. We owe it to the taxpayer who funds our research, and also to ourselves to reach out to students and build up the next generation of scientists.

Personally, I come from the Tata Institute of Fundamental Research, and this has been a chance to put the *fun* back into *fun*damental research!





"Freedom of thought in general and academic freedom in particular are far more than an abstraction and far more than a legal theory. They contribute to the health of the living, interconnected, embodied networks of society today." Catharine R. Stimpson

Contributors

Speakers at the 12th Forum on the Internationalization of Sciences and Humanities

Ayelet Baram-Tsabari

Ayelet Baram-Tsabari is Associate Professor at the Faculty of Education in Science and Technology at Technion – Israel Institute of Technology and heads the Applied Science Communication research group. Prof. Baram-Tsabari founded the Israeli Science Communication Conference series, and is an elected member of the scientific committee of Public Communication of Science and Technology Network (PCST), which aims to improve science communication worldwide. She is an elected member of the Israel Young Academy, and serves as Chairwoman of its Communication Committee. Baram-Tsabari is a member of the Advisory Board for the US National Academy of Sciences' LabX public engagement program, and a member of the Israeli Centers of Research Excellence (I-CORE) on "Learning in a Networked Society" and "Taking Citizen Science to School", among other professional activities. Baram-Tsabari's research focuses on bridging science education and science communication scholarship, identifying people's interests in science, building on people's authentic interests in science to teach and communicate science in more meaningful and personally relevant ways, supporting scientists in becoming effective science communicators, and evaluating science communication training. She has published extensively in the leading journals in both science education and science communication.

Arnab Bhattacharya

Arnab Bhattacharya is a scientist and science communicator at the Tata Institute of Fundamental Research, Mumbai. After graduating from IIT-Bombay with a B.Tech. in Engineering Physics, he did his MS and Ph.D. at the University of Wisconsin-Madison, and worked on an Alexander von Humboldt Fellowship at the Ferdinand-Braun-Institut, Berlin, before setting up a research group in TIFR for novel semiconductor materials and devices. His research has focused on group-III nitride and 2D layered semiconductors, in particular synthesis of new materials via metalorganic vapour-phase epitaxy. Beyond semiconductors, Arnab is extremely passionate about science outreach, and enjoys talking about science and demonstrating science experiments to all audiences, particularly school/college students. He pioneered "Chai and Why?" Mumbai's popular fortnightly science café that has been running every two weeks without a break since 2009. Arnab is presently the chair of Science Popularization and Public Outreach at TIFR. He has received the 2010 Homi-Bhabha-Award in Science Education, the 2012 Chevening Rolls-Royce Fellowship for Science and Innovation Leadership, and the 2017 INSA Indira Gandhi Prize for the Popularization of Science. He also has a whole bunch of eclectic interests - including music, marathon running, cooking, photography and hiking.

Alan Cross

Alan Cross is deputy Head of Unit in DG Research and Innovation, Horizon 2020 Policy and Foresight. He joined the European Commission in 1991, having previously worked for the UK's Natural Environment Research Council and the United Nations Environment Programme. Originally working in space policy, he then became involved in successive Framework programmes, first in the areas of earth observation and climate change, and later in science and society. Since 2006 he has worked on the coordination and strategy of EU programmes, including proposal evaluation, inter-institutional relations, National Contact Points and work programme development. He was strongly involved in the preparation, launch and subsequent implementation of Horizon 2020 and is now helping to prepare the successor programme, Horizon Europe.

Pierre Haski

Pierre Haski is a French journalist and the president of Reporters Without Borders in Paris, France. His journalistic career began in the 1970s at Agence France-Press. For AFP, he served as foreign correspondent in Johannesburg from 1976-1980. From 1981 to 2007, he worked for the French daily newspaper Libération in various different roles. Among other things, he was the paper's foreign correspondent from Jerusalem and Beijing, chief foreign policy editor (1995–2000), and deputy editor-in-chief (2006–2007). While posted in Beijing, Haski wrote a blog entitled "Mon journal de Chine" which was temporarily blocked by Chinese authorities. In 2007, Haski founded the news website Rue89 together with four colleagues. In addition to heading Reporters Without Borders, Haski is a much sought-after commentator on French and international affairs, writing guest editorials for international newspapers, such as the British newspaper The Guardian, and appearing regularly on TV and radio shows.

Yudit Namer

Yudit Namer holds a PhD in Clinical Psychology from Boğaziçi University, Istanbul, Turkey. She worked as a clinical psychologist and psychotherapist in Istanbul for ten years; her practice was rooted in relational psychoanalytic, as well as existential psychotherapy traditions. With a number of LGBTQ non-governmental organizations in Turkey, Yudit Namer has contributed to developing training programs for mental health professionals in providing mental health care for LGBTQ clients to improve LGBTQ individuals' access to mental health care. She served as a member of the executive board, and the ethics representative of the Turkish Psychological Association (TPA). She also participated in the formation of the LGBTI Working Group of TPA. She taught undergraduate and graduate level courses as an assistant professor of Psychology at Gediz University until the university was shut down under the state of emergency law in Turkey. Following the closure, she worked as a researcher at the School of Public Health, Bielefeld University supported by the Phillip Schwartz Initiative of the Alexander von Humboldt Foundation. She currently works at Bielefeld University as a project leader investigating the mental health care access of refugee minors in Germany.

Sijbolt Noorda

Sijbolt Noorda is the president of Magna Charta Observatory, Bologna. He is a former president of the Dutch Association of Research Universities, president emeritus of Universiteit van Amsterdam and a former Board member of the European University Association. In addition to this, he is a Board Member and Vice-President of International Baccalaureate and a Member of the International Advisory Board of Universität Tübingen, of Amsterdam University College, and of ITMO University, St Petersburg. Sijbolt Noorda also serves as editor-in-chief at Th&ma, a journal for Higher Education and Management in Flanders and The Netherlands. Dr. Noorda received his formal education in The Netherlands (Groningen, Amsterdam, Utrecht) and the USA (New York City). He writes and lectures on teaching and learning in Higher Education, about ideals and practices of internationalization, and on open science, core values and governance issues in HEIs. He regularly reviews and gives advice to individual universities and national systems in the European Higher Education Area.

Michael Quante

Michael Quante (born 1962) is full professor of practical philosophy in the Department of Philosophy at the Westfälische Wilhelms-University and Vice-Rector for Internationalization and Knowledge Transfer. He is Speaker of the Centrum für Bioethik and Co-Editor of the Hegel Studien. His areas of specialization include German idealism, theory of action, personal identity, ethics and biomedical ethics. He is author and coauthor of 15 monographs, editor and co-editor of more than 30 volumes and has published more than 200 papers. His research has been translated into more than ten languages. He is principal investigator of the Exzellenzcluster Religion und Politik, of the Sonderforschungsbereich Kulturen des Entscheidens and of the Research Training Group Evolutionary Processes in Adaptation and Disease. He has been president of the German Philosophical Association (2012-2014) and associated editor of Ethical Theory and Moral Practice (2004-2011). Books (in English): Hegel's Concept of Action (Cambridge University Press 2004, pbk. 2007), Enabling Social Europe (Springer 2005; co-authored with Bernd v. Maydell et al.), Discovering, Reflecting and Balancing Values: Ethical Management in Vocational Education Training (Hampp 2014; co-authored with Martin Büscher), Interdisciplinary Research and Transdisciplinary Validity Claims. Berlin: Springer 2014 (co-authored with Carl F. Gethmann et al.), Personal Identity as a principle of biomedical ethics (Springer 2017), Pragmatistic Anthropology (Mentis 2018) and Spirit's Actuality (Mentis 2018).

João Rangel de Almeida

João is Medical Humanities and Social Sciences Portfolio Development Manager at the Wellcome Trust and a research fellow at Birkbeck, University of London. João studied sociology as an undergraduate and obtained both his MSc and Ph.D. in Science and Technology Studies at the University of Edinburgh. He was a visiting scholar at the University of Pennsylvania (Department of History and Sociology of Science) and a postdoctoral fellow at the Max Planck Institute for the History of Science. His research looks at the international regulation of public health during moments of health emergency. João has a wide-range international experience and has developed projects in the Americas, Asia, and Africa. In these locations, he designs academic and funding strategies that connect global networks of scholars researching issues related to health. He also works on knowledge translation to maximise the impact of Humanities and Social Sciences investigations. Currently, João is completing an Executive MBA at the University of Cambridge, Judge Business School.

Catharine R. Stimpson

Catharine R. Stimpson, one of the pioneers in the study of women and gender, a founder of feminist criticism, is also known for her role as a public intellectual and her public service, which includes her wideranging writing on the humanities, liberal arts, and the university. She is University Professor at New York University and Dean Emerita of the Graduate School of Arts and Science there. She is located as a senior research fellow in the Steinhardt Institute for Higher Education Policy, and is an affiliated faculty member of the NYU Law School Faculty, of New York University Abu Dhabi, and of the Department of Applied Statistics, Social Science, and Humanities, Steinhardt School, New York University. From January, 1994, to October, 1997, she served as Director of the Fellows Program at the MacArthur Foundation in Chicago. Simultaneously, she was on leave from her position as University Professor at Rutgers, The State University of New Jersey-New Brunswick, where, from 1986-1992, she was also Dean of the Graduate School and Vice Provost for Graduate Education. Before going to Rutgers, she taught at Barnard College, where she was also the first director of its Women's Center. Once the editor of a book series for the University of Chicago Press, she was also the founding editor of Signs: Journal of Women in Culture and Society from 1974-80. The author of a novel, Class Notes (1979, 1980), the editor of eight books, she has also published over 150 monographs, essays, stories, and reviews in such places as Transatlantic Review, Nation, New York Times Book Review, Critical Inquiry, and boundary 2. A selection of essays on literature, culture, and education, Where The Meanings Are, appeared in 1988, and was re-issued in 2014. She served as co-editor of the two-volume Library of America edition of the works of Gertrude Stein. Professor Stimpson has lectured at approximately 400 institutions and events in the United States and abroad. Her public service has included the chairpersonships of the New York State Council for the Humanities, the National Council for Research on Women, and the Ms. Magazine Board of Scholars. In 1990, she was the President of the Modern Language Association. She is now a member of the board of directors of several educational, philanthropic, and cultural organizations, including Scholars at Risk, whose board she chairs. She is a former member of the board of PBS. From September 2000 through September 2001, she served as the president of the Association of Graduate Schools. She was chair of the board of Creative Capital, the innovative arts organization. As a member of the Editorial Group of Change magazine from 1992 to 1994, she wrote a regular column about education and culture. Born in Bellingham, Washington, she was educated at Bryn Mawr College, Cambridge University, and Columbia University. She holds honorary degrees from Upsala College, Monmouth College, Bates College, Florida International University, the State University of New York at Albany, Hamilton College, the University of Arizona, Wheaton College, Hood College, Union College, Holy Cross College, Santa Clara University, Rutgers University, Emory University, Simmons College, and Western Washington University. She has also won Fulbright and Rockefeller Humanities Fellowships. She was awarded the 2011 Francis A. March Award

for Distinguished Service to the Profession from the Modern Language Association. Stimpson's most recent book, Critical Terms for the Study of Gender, co-edited with Gilbert Herdt, was published by the University of Chicago Press in Summer 2014, and was named one of the most significant academic titles of 2015 by CHOICE, a magazine of the American Research Library Association.

Christopher Tremewan

Christopher Tremewan is Secretary General of the Association of Pacific Rim Universities. APRU is an association of 50 leading research universities of 17 APEC economies encompassing East and Southeast Asia, the Americas and Australasia. It was established in 1997 by the presidents of Caltech, UC Berkeley, UCLA and USC. The International Secretariat is based in Hong Kong. Dr Tremewan holds degrees in social anthropology from the University of Auckland, in Public Administration from Harvard University, and a Ph.D. in political science (on Southeast Asian politics) from the University of Canterbury. He was elected a senior associate member of St. Antony's College, Oxford University, in September 1991 from where he published the book The Political Economy of Social Control in Singapore (1994). He was a visiting fellow at Georgetown University in Washington, D.C. in 2003 and a visiting professor at Peking University in 2007 – 2008. Before leading APRU, Dr Tremewan was Vice-President (International) of The University of Auckland, New Zealand. In 1995 he became the founding director of the New Zealand Asia Institute, which he led until 1999. Previously, he held positions as a senior consultant and research director for international development organizations based in Hong Kong, Singapore, and Tokyo. He has also been chair of the Foreign Affairs and Security Policy Committee of the New Zealand Labour Party. A specialist on social regulation in Southeast Asia, his research has recently focused on the geopolitics of higher education.



"In the short run, one of the best ways to secure academic freedom may lie in fostering international networks of scientists and scholars."

Central points of discussion, 12th Forum on the Internationalization of Sciences and Humanities

The International Advisory Board of the Alexander von Humboldt Foundation

The International Advisory Board of the Alexander von Humboldt Foundation is an independent, international expert group which meets once a year to discuss strategic issues relating to the global mobility of researchers and the internationalization of research. The Board provides a forum for debate on global developments in science and academia, science policy, and science administration.



History and Mission

The International Advisory Board was established in 2007 in response to an increasing demand for expertise on issues relating to the internationalization of sciences and humanities. It is the successor to the Advisory Board of the Foundation's Transatlantic Science and Humanities Program (TSHP), which was established in 2001 with the aim of creating a binational network of experienced leaders from German and North American academia, science administration, and science policy. The International Advisory Board supports the Foundation's strategic planning. As an independent expert group, it addresses current developments in global academic markets and identifies topics of special strategic concern to the Foundation and its partners in Germany, the United States, and beyond.

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An Independent Expert Group

The Members of the International Advisory Board

Chair



Katharina Boele-Woelki is the President of Bucerius Law School, the first private law school in Germany, where she also serves as the Claussen Simon Foundation Professor of Comparative Law. Until September 2015, she was Professor of Private International Law, Comparative Law and Family

Law at Utrecht University, the Netherlands, and Extraordinary Professor for Legal Research at the University of the Western Cape, South Africa. She established the Commission on European Family Law (CEFL) and the Utrecht Centre for European Research into Family Law (UCERF). She is member and board member of various professional associations and institutions, such as the Deutsche Gesellschaft für Völkerrecht and the Swiss Institute of Comparative Law, and serves on editorial boards for Global, European and South African law journals, book series and open access platforms. In 2014, she was elected president of the International Academy of Comparative Law. She taught at the Hague Academy for International Law and was awarded honorary doctorates from Uppsala University, the University of Lausanne and the University of Antwerp, as well as the Anneliese Maier-Forschungspreis from the Alexander von Humboldt Foundation.

Co-Chair



Ulrike Hahn first qualified as a lawyer, passing both her 1st and 2nd State Law Examinations in the state of Bavaria, Germany, before taking a Masters in Cognitive Science and Natural Language at the University of Edinburgh. This was followed by a DPhil in Experimental Psy-

chology from Oxford University on the topic of rules and similarity in categorization. Upon completion of her doctorate, she joined the Department of Psychology at the University of Warwick as a lecturer, moving on after two years to the School of Psychology at Cardiff University where she remained for 14 years. Since 2012 she has been at the Department of Psychological Sciences at Birkbeck College, University of London, where she also serves as director of the Centre for Cognition, Computation and Modelling. Ulrike Hahn's research interests are categorization, similarity, language and language acquisition, and, first and foremost, questions of human rationality. Her research examines human judgment, decision-making, and the rationality of everyday argument. She is presently particularly interested in the role of perceived source reliability for our beliefs, including our beliefs as parts of larger communicative social networks. Ulrike Hahn is presently a member of the Senior Editorial Board of "Topics in Cognitive Science" and an Action Editor for Frontiers in Cognitive Science and for Frontiers in Social Psychology. She also served as an Action Editor for "Psychonomic Bulletin & Review" from 2008-2012, and as a consulting editor for Psychological Review from 2009-2010. She was awarded the Cognitive Section Prize by the British Psychological Society, the Kerstin Hesselgren Professorship by the Swedish Research Council, and the Anneliese Maier Research Award by the Alexander von Humboldt Foundation.

Members

Yitzhak Apeloig is the former president of Technion - Israel Institute of Technology. He received his B.A., M.Sc. and Ph.D degrees in chemistry from the Hebrew University in Jerusalem and was a postdoctoral fellow at Princeton University before joining Technion in 1976, where he is currently a Distinguished

Professor, holds the Nahum Guzik Distinguished Aca-

demic Chair and is a co-director of the Lise Meitner Minerva Center for Computational Quantum Chemistry. Yitzhak Apeloig is a worldleader in organosilicon chemistry and in the application of quantum mechanics theory to chemistry. He has published widely, was a visiting professor at universities on four continents and has presented some 200 invited lectures at international conferences, universities and in industry. He has received many awards, among them the ACS Kipping Award in Silicon Chemistry, the Israel Chemical Society Prize, the Humboldt Research Award, the JSPS Visiting Professor Award, and Technion Awards for Academic Excellence, Excellence in Research and Excellence in Teaching. He is an Honorary Foreign Member of the American Academy of Arts and Sciences, a Fellow of the American Association for the Advancement of Science, a member of Academia Europaea, and holds an honorary doctorate from TU Berlin and the Order of Merit (First Degree) of the Federal Republic of Germany.

Joseph S. Francisco is the President's Distinguished Professor of Earth and Environmental Science, and Professor of Chemistry at the University of Pennsylvania. Following undergraduate studies at the University of Texas and a PhD in Chemical Physics at the Massachusetts Institute of Technology, he spent two

years at the University of Cambridge and returned to MIT as a Provost Postdoctoral Fellow. Until 2014, he was the William E. Moore Distinguished Professor of Earth and Atmospheric Sciences and Chemistry at Purdue University. After that, he became Dean of the College of Arts and Sciences and held the Elmer H. and Ruby M. Cordes Chair in Chemistry at the University of Nebraska at Lincoln. Using laser spectroscopy and computational chemistry methods, his research

focuses on understanding, at a molecular level, chemical processes occurring in the atmosphere. It covers the fields of atmospheric chemistry, chemical kinetics, quantum chemistry, laser photochemistry and spectroscopy. Dr. Francisco served on editorial and advisory boards for renowned journals and received prestigious awards and fellowships from organizations such as the National Science Foundation, the Sloan and the Guggenheim Foundations, the National Organization for the Professional Advancement of Black Chemists and Chemical Engineers, and the American Chemical Society. A Fellow of the American Chemical Society, the American Physical Society, the American Association for the Advancement of Science, the American Academy of Arts and Sciences, and the National Academy of Sciences, he also holds a Humboldt Research Award and serves on the Board of Directors of the American Friends of the Alexander von Humboldt Foundation.



Joachim Herz is the Thomas O. and Cinda Hicks Family Distinguished Chair in Alzheimer's Disease Research at the University of Texas Southwestern Medical Center. He studied at the University of Heidelberg, where he also completed his doctoral thesis in Pharmacology. After graduating from Medical School in 1983,

he practiced medicine as a surgical resident in Germany and England before joining the European Molecular Biology Laboratory (EMBL) in Heidelberg. He moved on to the laboratory of Drs. Michael Brown and Joseph Goldstein at the University of Texas Southwestern Medical Center in 1989 and joined the faculty of the Department of Molecular Genetics at UTSW in 1991, where was named full professor in 1998 and the Thomas O. and Cinda Hicks Family Distinguished Chair in Alzheimer's Disease Research in 2002. He is an Established Investigator of the American Heart Association and a member of the American Society for Clinical Investigation. Among his numerous awards and honours are fellowships from the Boehringer Ingelheim Foundation and EMBL, being selected as a Syntex Scholar, the Lucille P. Markey Scholar Award, the Wolfgang Paul Award of the Alexander von Humboldt Foundation and the German Federal Ministry of Education and Research, the Heinrich Wieland Prize for Excellence in Lipid Research, and a MERIT award from the National Institutes of Health.



Guinevere Kauffmann is a Director at the Max Planck Institute for Astrophysics in Garching, Germany. Following her undergraduate years in South Africa, she obtained her doctorate at Cambridge University. After a postdoctoral stay as a Miller Fellow at the University of California, Berkeley, Dr Kauffmann moved to Munich, where she

has been a scientist at the Max Planck Institute for Astrophysics since 1995, most recently as the leader of a group studying galaxy evolution. Dr. Kauffmann is known for her pioneering work to develop theoretical models for the formation and evolution of the galaxy population as a whole. She has also played a leading role in devising analysis methods for extracting quantitative information about the physical processes driving galaxy evolution from the observational data provided by modern large-scale surveys, notably the Sloan Digital Sky Survey, but also smaller, specially designed surveys, which she and her team have carried out themselves.Dr. Kauffmann was awarded the Heinz Maier-Leibnitz Prize and the Gottfried Wilhelm Leibniz Prize, the most prestigious prize in German research, by the German Research Foundation. She was elected to the American Academy of Arts and Sciences, the German National Academy of Sciences Leopoldina, and the US National Academy of Science. In 2010, she was awarded the Distinguished Service Cross of the Federal Republic of Germany for her services to science.

a member of the editorial boards of journals such as the International Journal of Heritage Studies. In October 2015 she took up her position as a Humboldt Professor in Berlin.



Liqiu Meng is a Professor of Cartography at the Technische Universität München (TUM). She served as the Senior Vice-President for International Alliances and Alumni of TUM from 2008 to 2014 and as Senator of the Helmholtz Association from 2009 to 2012. Fol-

lowing studies of geodetic engineering in China, she completed her doctorate and a postdoc at the University of Hannover in Germany before moving to Sweden to teach and to work as a consultant while finishing her habilitation in the field of geoinformatics. She is a member of the German National Academy of Sciences Leopoldina and the Bavarian Academy of Sciences. She serves on university councils at Aalto University in Finland and at Tongji University in China, the Senate of the German Aerospace Center DLR, and on the Boards of Trustees at the German Research Centre of Geosciences GFZ and several Max Planck Institutes.



Sharon Jeanette Macdonald completed her doctorate at the University of Oxford in 1987 and subsequently spent time at Brunel University in London and Keele University near Newcastle-under-Lyme, UK. In 1996, Macdonald became a lecturer at the University of Sheffield, where she was appointed to a professorship in cultur-

al anthropology in 2002. From there, she moved to the University of Manchester in 2006 and, finally, in 2012, to a prestigious Anniversary Professorship at the University of York. In the context of a Humboldt Research Fellowship, Macdonald conducted research in Germany on a number of occasions between 2000 and 2007, at Friedrich-Alexander-Universität Erlangen-Nürnberg and Humboldt-Universität zu Berlin. In 2011, she was a visiting professor at Beijing University. Macdonald is a member of diverse specialist associations, including the Royal Anthropological Institute, and



Having originally read biology, Hans-Christian Pape took a doctorate in biology and medical neuroscience at the University of Essen in 1986. He was subsequently awarded a fellowship abroad by the Deutsche Forschungsgemeinschaft (DFG) and became a postdoctoral researcher in the United States, at the State

University of New York at Stony Brook and at Yale University. In 1992, Hans-Christian Pape completed his habilitation in physiology at Ruhr-Universität Bochum and from 1994 to 2004 was a professor and director of the Institute of Physiology at the University of Magdeburg. He then moved to the University of Münster where he has been the head of the Medical Faculty's Institute of Neurophysiology ever since. Hans-Christian Pape is a leading expert in the neurophysiological foundations of emotional behaviour. He has won many distinguished

research awards such as the Gottfried Wilhelm Leibniz Prize and the Max Planck Research Award. In addition to conducting research, Hans-Christian Pape is active both nationally and internationally in a number of advisory and consultative bodies. In January 2018, he assumed the office of President of the Alexander von Humboldt Foundation.

Daya Reddy holds the South African Research Chair in Computational Mechanics at the University of Cape Town (UCT). Following undergraduate studies in civil engineering at UCT, a Ph.D. at Cambridge University, and a postdoctoral year at University College London, he returned to a lectureship at UCT, subsequently being

appointed Professor of Applied Mathematics. He later served a seven-year term as Dean of the Faculty of Science. Professor Reddy's research interests lie in mathematical modelling, analysis and computation in mechanics. He has made significant contributions to the theory of inelastic material behaviour, cardiovascular biomechanics, and the development of stable computational approximations. He has served as President of the Academy of Science of South Africa, and is currently president of the newly-formed International Science Council (ISC), and co-chair of the research branch of the InterAcademy Partnership, a global network of national academies of science and health sciences. Daya Reddy has received the Award for Research Distinction of the South African Mathematical Society, and the national Order of Mapungubwe. He is a Fellow of the International Association for Computational Mechanics, and a recipient of the Georg Forster Research Award from the Alexander von Humboldt Foundation.

Ljubiša Stanković was born in Montenegro in 1960. He received a B.Sc. degree in Electric Engineering from the University of Montenegro with an award for "best student at the University", an M.Sc. degree in Communications from the University of Belgrade and a Ph.D. in Theory of Electromagnetic Waves from the University of Montenegro. As a Fulbright grantee, he spent the academic year 1984-1985 at the Worcester Polytechnic Institute, USA. Since 1982, he has been on the faculty at the University of Montenegro, where he has been a full professor since 1995. In 1997-1999, he was on leave at the Ruhr University Bochum, Germany, supported by the Alexander von Humboldt Foundation. At the beginning of 2001, he was at the Technische Universiteit Eindhoven, The Netherlands, as a visiting professor. He was vice-president of Montenegro 1989-90 and member of the Parliament of Yugoslavia, 1992-1996. During the period of 2003-2008, he was Rector of the University of Montenegro. He was Ambassador of Montenegro to the UK, Ireland and Iceland in the period 2011-2015. His current research interests are in signal processing. He published about 350 technical papers, about 150 of them in the leading journals. Professor Stanković received the highest state award of Montenegro in 1997 and 2015, for scientific achievements. He has been a member of the National Academy of Science and Arts of Montenegro (CANU) since 1996 and is a member of the European Academy of Sciences and Arts.



Raimo Väyrynen, professor emeritus of political science at the University of Notre Dame, USA, and the University of Helsinki, has published extensively on international peace and security, international political economy, and the theory and history of international relations. He was a visiting professor

at Princeton University and the University of Minnesota as well as a Fulbright scholar at MIT and a visiting fellow at Harvard University. His most recent books include The Waning of Major War: Theories and Debates (2007) and Towards Nuclear Zero (2010). He has led the Tampere Peace Research Institute, the International Peace Research Association, the Helsinki Collegium for Advanced Studies and the Finnish Institute for International Affairs and has been President of the Academy of Finland. Globally sought-after as an expert advisor, he has served on top-level boards and committees for – among others – the United Nations University, the Peace Research Institute Oslo, the Copenhagen Peace Research Institute, the European Union Research Advisory Board, the European Science Foundation, and the European Research Council.



Gerhard Wolf is scientific member of the Max Planck Society and director at the Kunsthistorisches Institut in Florenz – Max-Planck-Institut (since 2003). He received his PhD degree in art history from the University of Heidelberg 1989, and completed his habilitation in Berlin in 1994. He held the chair of art history at Trier Uni-

versity from 1998 to 2003. His numerous guest professorships took him to Paris (EHESS), to Rome (Bibliotheca Hertziana), Vienna, Basel, Buenos Aires, Mexico City, Jerusalem, Mendrisio, Harvard University, Lugano, Chicago University, Istanbul (Boğaziçi University), Delhi (Jawaharlal Nehru University) and Zurich (Heinrich Wölfflin Lectures). Since 2008 he has been honorary professor at the Humboldt University Berlin. He is a member of the Berlin-Brandenburgische Akademie der Wissenschaften and the German Council of Science and Humanities (Wissenschaftsrat, since 2013). Gerhard Wolf has curated various exhibitions worldwide. He is co-director of a fellowship program with the Berlin State Museums. He has served on boards and commissions for the European Science Foundation, European Research Council, German Research Foundation, Getty Center, Einstein Foundation, Minerva Foundation, and others.



Jie Zhang is the former President of Shanghai Jiao Tong University (SJTU). As President of SJTU (2006-2017) he brought vitality, creativity and passion to the university. By taking on a global view he has become a most respected educator in China with a world-wide impact. Under this leader-

ship, SJTU made remarkable progress on its way to a world-class university. The reforms at SJTU were taken as a model for future universities across the world [Nature 514 (2014) 295]. In 2017, he became Vice President of the Chinese Academy of Sciences and Chairman of the University of the Chinese Academy of Sciences. Professor Jie Zhang is a prominent laser-plasma physicist. He works on laser-plasma physics and high energy density physics. He has made outstanding contributions to the development of soft X-ray lasers, the generation of hot electrons in laser plasmas in connection with inertial confinement fusion (ICF), and to lab simulations of astrophysical processes with laser-produced plasmas. In 2015, he was awarded the Edward Teller Medal, the most prestigious prize in the field of ICF and high energy density physics, by the American Nuclear Society, for his significant contributions to the understanding of hot electrons in laser-plasmas relevant to ICF and the successful reproduction of some astrophysical processes using highpower lasers. He was elected Foreign Associate of the National Academy of Sciences (NAS) in 2012, Foreign Member of the Royal Academy of Engineering (FREng) in 2011, Fellow of the Third World Academy of Sciences (TWAS) in 2008, member of the German National Academy of Sciences Leopoldina, and Academician of the Chinese Academy of Sciences in 2003.

Impressions

Rainer Lange (German Council of Science and Humanities), Thorsten Wilhelmy (Wissenschaftskolleg zu Berlin)





Forum on the Internationalization of Sciences and Humanities

The International Advisory Board hosts an annual Forum on the Internationalization of Sciences and Humanities, opening its discussions to a select group of leading international experts and top management officials representing the Humboldt Foundation's partner organizations. Each Forum provides an opportunity for eminent international experts to hold an open exchange of views in a private setting. Important minutes of the proceedings and recommendations are published for the benefit of a wider audience.

Forum topics

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2002	Trends in American & German Higher Education
2003	The Impact of the New Developments within the European Research Area for Transatlantic Scientific Co-operations
2004	What Factors Impact the Internationalization of Scholarship in the Humanities and Social Sciences?
2005	Bi-national Programs on Shifting Grounds?
2006	The Advancement of Excellence
2007	Postdoctoral Career Paths
2008	Strategies to Win the Best: German Approaches in International Perspective
2009	Cultures of Creativity: The Challenge of Scientific Innovation in Transnational Perspective
2010	Crossing Boundaries: Capacity Building in Global Perspective
2011	The Globalization of Knowledge and the Principles of Governance in Higher Education and Research
2012	Networks of Trust: Will the New Social Media Change Global Science?
2013	Postdoctoral Career Paths 2.0: The Golden Triangle of Competitive Junior Investigators, Adequate Academic Systems, and Successful Careers
2014	Beyond Bibliometrics – Identifying the Best
2015	Identifying the Best – Theory, Methods, Practice
2016	Scholarly Integrity
2017	Trust in Science and Scholarship – A Global Societal Challenge

The Role of the TSHP Advisory Board in the Transatlantic Dialogue



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