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Loss of Trust? Loss of Trustworthiness? Truth and Expertise Today

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About this Series

The ALLEA Discussion Paper series is an initiative to provide up to date and informed perspectives from the academic world on some of the most pressing issues facing societies across Europe and beyond. The objective is to contribute to and connect debates in the fields of science, society and policy. It serves as a transnational forum of the academies of sciences and humanities for outstanding scholars to present and discuss their work within ALLEA. Issues may draw on workshop reports, statements and position papers by ALLEA working groups or other ALLEA initiatives. The series provides an intellectual space to reflect on complex questions and potential solutions and seeks to inform policy decisions as well as the public debate.

About the ALLEA Working Group "Truth, Trust & Expertise"

The ALLEA Working Group "Truth, Trust and Expertise" is a platform for perspectives on the nature and relationship between truth, trust and expertise in the field of science and research. The expert group, chaired by Baroness O'Neill of Bengarve and Professor Ed Noort, aims to interrogate and explore current and past dynamics of public trust in expertise and contested norms of what constitutes truth, facts and evidence in scientific research and beyond. Central themes of the group include: the alleged loss of trust in science and evidence, questions of how valid knowledge can and should be acquired and communicated, and how different academic disciplines are dealing with these challenges.

About ALLEA

ALLEA (All European Academies) is the European Federation of Academies of Sciences and Humanities. It was founded in 1994 and currently brings together almost 60 academies from more than 40 countries in the Council of Europe region. Its Member Academies are self-governing communities of leading scholars and researchers across all scientific fields. Independent from political, commercial and ideological interests, ALLEA contributes to the improvement of framework conditions under which science and scholarship excel. Together with its Member Academies, ALLEA addresses the full range of structural and policy issues facing Europe in science, research and innovation. Via its interdisciplinary and international working groups, various public engagement activities, and by participating in pan-European projects, ALLEA informs European policy and society through evidence-based advice.

Executive Summary

Truth, trust and expertise matter in every walk of life. Personal choices and profound policy decisions rely on our ability to place and refuse trust wisely. That is to say, to determine whether a truth claim is trustworthy. But how do we place and refuse trust? Such judgements primarily, but not exclusively, involve the exercise of epistemic trust. To invest epistemic trust in a person, an organisation or a procedure is to trust their capacity as providers of information. A great deal of this information that we absorb is acquired from others and the level of trustworthiness we ascribe to their speech and testimony. This introduces an affective, or emotional, dimension into our judgements on what is trustworthy or not.

The following briefing will be of interest to many from researchers to policymakers, from journal editors to science popularisers, from institutions to publics. However, this briefing covers broad questions affecting many people and so although it is helpful to bring the questions raised together in one place, there will be elements more or less relevant to each individual and group and we would expect that each will reflect most on those elements. With that caveat, this briefing concludes by posing some reflections for further consideration and action:

» The initial response to claims that experts were not trustworthy was to regulate them more closely. The importance of accountability whilst still encouraging academic endeavour needs to be thought through further. We need to know whether our accountability systems support the intelligent placing and refusing of trust.

- » There needs to be further reflection on the different conventions and practices that exist in science in the *Wissenschaft* sense of the word. How can people know what counts as trustworthy evidence when what counts as good evidence differs in different scientific fields?
- » How can we move forward with ways of working that acknowledge that there are different ways of framing problems and different interpretations of issues, but without descending into relativism rather than achieving consensus?
- » Contact and engagement in person with a wide range of people, and of differing views and backgrounds, is important for individuals and societies (as well as functioning democracies). Dialogue is essential. How though can we secure dialogue in an age of social media?
- » How do we speak truth to power and publics whilst nourishing a culture that welcomes expertise and can be tolerant of the odd disruption this brings? If expertise and science are to engage effectively in the public and policy arenas how can such knowledge draw together and deliver good trustworthy advice?
- » What are wider publics meant to make of this cacophony of placing and refusing trust, of almost boundless available information, and the feeling of proliferating expertise? Is it a question of placing greater emphasis on understanding how expertise and science as social constructs work so as to enable a better sense of the nature and significance of the 'expertise' being viewed? Would this help us place our trust more accurately and more wisely?

Background

The issues of trust and trustworthiness and what these core concepts signify have a significant bearing on the social role of experts in contemporary societies. Who are the 'experts'? Where does their expertise reside? What makes them trusted? What makes them trustworthy? Experts' views and evidence, as they enter the public and political arena, can be misconstrued, distorted or dismissed; public controversies highlight the contested and fragile social standing of expertise, as well as its involvement in multiple and complex chains of 'verification'.

It is often claimed that in modern democracies trust in science and other forms of expertise has declined. This (apparent) loss of trust in expertise, in particular, has typically been portrayed as a negative trend, to be countered by further accountability and 'public education'. Such 'information deficit' models (associated with a more general approach to the 'public understanding of science') are tenacious, despite growing recognition of the complexity and contingency of science-society relationships.

It also implies that there has been a loss of trust in expertise. What however is the evidence for such a loss of trust, and what does it tell us about who has apparently lost trust in what or whom? Is it well-merited trust (in trustworthy persons or institutions) that is missing or are quite different phenomena manifest or represented as a loss of trust? In addition, this leads to the question what makes new evidence, pertinent to an issue that we care about, persuasive to us as individuals (or not)? Why might we trust or distrust, accept or reject, an expert claim? And finally, when assessing whether trust has been lost, there is a need for critical appraisal of concepts such as 'expertise', 'science' and 'the public'. None is monolithic, and

there are crucial distinctions to be made between falsification/overt politicisation on the one hand and critical engagement (involving a lack of automatic deference) on the other.

This briefing will neither aim to solve these questions outright, nor define or delineate different forms of expertise. That is a constant exercise of interaction and change within and between societies and contexts. This briefing will however aim to reflect on the current situation in which expertise and particularly research and science, trust and trustworthiness operate in societies today, and what has changed or is changing so that lessons can be drawn and understanding can be developed on how best to tackle these questions.

But first why do these questions and the role of truth, trust and expertise matter? Expertise shapes our daily lives, and our trust in that expertise and the trustworthiness of expertise and belief in the truth that experts speak informs many of the decisions that we make and that are made around us. Trust and distrust are how we make decisions and assess the options before us, and both have been pervasive through all human societies. It is their nature and context that changes. Expert and scientific information help guide fundamental personal choices, like which foods we eat and products we buy, while expertise helps understand our past and develop the frontiers of our knowledge that fuel job growth, economic prosperity, medical advancements and the creative arts. The trustworthiness we place in (or refuse to place in) experts is therefore important to our personal life choices, for our families and friends, for communities and local associations, and up to regional, national and international governance mechanisms. In fact, trust is essential. We cannot do everything ourselves or check the evidence for everything we believe.

Placing or Refusing Trust: That is the Question

This trust we place in experts is valuable when placed in trustworthy agents and activities, but damaging and costly when misplaced. Attention is, however, often simply focused on people's generic attitudes of trust and mistrust that take no account of evidence of whether those attitudes are well- or ill-placed. Information about attitudes is evidently useful to those who aim to influence those who hold them, which explains why polls about attitudes are popular with political parties, advertisers and other campaigning organisations but offer little help for those who aim to place or refuse trust well. Where our aim is not to influence or manage reputations, but to be able to place and refuse trust intelligently, we must link trust to trustworthiness. How to do so is the major question we face.

In most practical contexts, interest is not directed to empirical questions about attitudes of mistrust, but to normative questions such as is the evidence reliable, is a truth claim correct, is a commitment secure. These questions matter in any activity in which standards must be met, including all types of research, but also in general life in order to judge the honesty of others' claims, the competence of their action and the reliability of both. As Katherine Hawley has said:

"Trusting people requires us to trust in both their skill and their intentions, and the same holds of trusting what they say: this requires us to trust in people's knowledge, and trust in their honesty. We should not trust what people tell us if we think they don't have the relevant expertise; and we should not trust what people tell us if we think

*they are trying to pull the wool over our eyes."*¹

Many think there is now a real problem with a loss of trust in expertise, which is leading to unreliable evidence being believed, falsehoods being claimed as truth and commitments being secured on false pretences. A note of caution is needed here. Many may think something is going wrong, but such claims are not generally directed at all forms of expertise. People claim not to trust banks but have bank accounts. They claim not to trust companies but buy their products. It is, however, clear that things have changed and are changing, and this mutating landscape does need attention.

But how do we place and refuse trust? It is an almost reflex reaction in much of our daily lives that we rarely consider more than in an inkling of the eye. What are the conditions relevant to these judgements we make about the trustworthiness of experts and the wider information we come across in society? Placing and refusing trust, whether in others' truth claims or in their commitments, requires judgement of available evidence, including judgement of their speech acts, their track record and their likely motivation. But it does not need complete evidence, let alone proof. On the contrary, where one has complete evidence or proof, trust becomes redundant. Since trust must therefore run ahead of proof or control in order to avoid paralysis by inaction, it is always possible to place it badly.

Such judgements primarily, but not exclusively, involve the exercise of epistemic trust. To invest epistemic trust in a person, an organisation or a procedure is to trust their capacity as providers of information. A great deal of this information that we absorb is acquired from others and the level of trustworthiness we ascribe to their speech and testimony. This introduces an additional affective,

¹ Katherine Hawley (2012), *Trust: A Very Short Introduction*, (Oxford: Oxford University Press), p.7

or emotional, dimension into our judgements on what is trustworthy or not. For example, it is possible to have confidence in the abilities and even the competence of experts but not trust them.

Trustworthiness Contested

This can place epistemic trust in conflict with the affective conditions in which trustworthiness is determined. Epistemic trust is viewed as placing a high degree of confidence, reliance and credibility in the information provided, but the affective features of placing or refusing trust revolve around questions of taking a chance in trusting someone, in putting ourselves at risk and demonstrating vulnerability. It also involves optimism and faith and allows for the possibility of betrayal. Such judgements also have a social and political aspect taking into account factors such as prestige, social position, race, gender and time, for example. These affective features are key in understanding judgements on trustworthiness. For example, in order to understand a lack of trust in children's vaccines we need to be aware of communication between experts and their audiences but also of the vulnerability that parents experience in conditions of perceived or real uncertainty.

There is certainly a cost asymmetry in terms of time and availability of information between academic books, articles and reports that have gone through ethics panels, conflict of interest checks, peer review and have utilised all the necessary research methods and tools, and much of the information that is almost immediately available that is consumed by many people who wish to participate in the big questions that face them in their lives and more prosaically wish to have some form of

advice and guidance for the day-to-day decisions they need to make.

We should also be clear that research and science are at times viewed sceptically and not seen as benevolent forces. This reinforces the importance of considering the social and political context in which expertise is being sought, and whether it will be refused or not. Furthermore, this might suggest that such questions about the trustworthiness of information and experts is a singular system existing in every context. This would be incorrect. Expertise can be valued in one context and denounced in another. It is also possible to come to very different conclusions on the basis of the same science, as has been seen in different countries or societies in recent years in some areas of the life sciences. Views about who are considered as experts can also differ widely from place to place. Experts and expertise are not monolithic, and we need to engage with the importance of cultural differentiation locally and around the world. Understandably, this can lead to situations where trust is refused not for lack of credibility or confidence, but due to shortcomings in the delivery of the affective and social aspects of judgements of trustworthiness.

The response to such situations has often been to assume that 'the public' needs more and better information (known as the 'deficit model'). This approach has been notably unsuccessful, as well as the subject of a powerful theoretical critique. A different, and potentially more fruitful, way of thinking considering the affective features we are exploring is offered by Sheila Jasanoff's concept of 'civic epistemologies' – broad, culturally contingent "understandings of what credible [knowledge] claims should look like and how they ought to be articulated, represented, and defended".² This opens a perspective that accepts

² Sheila Jasanoff (2011), 'Cosmopolitan Knowledge:

that issues considered expert or scientific can have other dimensions and that framing them solely as expert or scientific can cause conflict. As the UK House of Lords Committee on Science and Technology noted back in 2000 "*Some issues ... treated by decision-makers as scientific issues in fact involve many other factors besides science. Framing the problem wrongly by excluding moral, social, ethical and other concerns invites hostility.*"³

This has not stopped very high continuing interest in science, such as can be seen with popular science programmes on television, but there is also undoubtedly unease – as there has regularly been in the past – with the pace and direction of some scientific and technological advances, as well as more negative views on the role of government and industry in shaping and influencing expert opinion. This is not a new issue. We may be grappling with different advances and have different communication tools, but new evidence and research coming to light, creating controversy in certain areas, is time honoured. What can we learn from this?

The divide is regularly not between 'experts' and the public or publics but between differing coalitions of interest and/or belief, which again emphasises the geographic and cultural contingent nature of trust and trustworthiness in expertise. There are different beliefs and world views and grasp of attitudes to the relevant facts that may differ depending on different framings of the issue at hand: there have been times when publics and civil society have been right not to place their trust in science. Nor should we forget that organised groups ('civil society') have long been an important

Climate Science and Global Civic Epistemology', in *The Oxford Handbook of Climate Change and Society*, eds. J.S. Dryzek, R.B. Norgaard and D. Scholasberg, (Oxford: Oxford University Press), pp.129-43

³ UK House of Lords Science and Technology Select Committee (2000), *Science and Society*, <https://publications.parliament.uk/pa/ld199900/ldselect/ldsctech/38/3802.htm>

driving force – for good or ill - in the evolution of public policy. Scientists also often fail to involve (parts of) the public in scientific work.

That being said, many of these issues are deep and intractable problems where the evidence is often incomplete. There is at times both a lack of understanding at large in terms of the complexities of the issues but also of the limitations of science. It is important to be conscious of the fact that the limitations of scientific research are not always understood by the general public. The results of a scientific enquiry are, however, relative to the definitions, assumptions and methods used. Such enquiries exist in their own context and parameters too. Science is not infallible, but it is the best system of evidence and expertise we have been able to develop. This should, however, indicate the constant need for self-critically testing claims of knowledge and reliability. The central concepts that are used in science in its broadest sense need to be used with considerable care. Science and expertise are not monolithic, just as there are many publics, so every expert is also a lay person outside their own area of expertise. In such an environment, the development of dialogue and inclusivity is critical and also the promotion of our capacities for critical judgements to determine what is trustworthy or not.

Science Contested

Science, research and expertise are always debated, argued over and contested. This is the normal state of affairs that we aim to encourage and support in order to advance our understanding and knowledge. Contestation is therefore not a bad thing and is often necessary to lead to consensus. In fact, the corrigibility of science is key to the progress that it can lead to. Conjectures and refutations are key to scientific methods. There is, however, a paradox that we live in a supposed knowledge society and are immersed in phenomena such as Big Data and yet it is now widely said we are living in a so-called post-truth era.

Practicing science involves a process based on rules that should be articulated as clearly as possible. For academics, it is crucial to evaluate each other's results critically, in particular because new insights need to be tested and verified, and errors need to be amended. Consensus may emerge when there is respect for, and dialogue on, different insights. Although scientists or scholars are no arbiters of truth, they do operate on institutionally embedded trust in their judgement by including checks and balances in the research process.

This, however, relates to achieving academic and scientific consensus whilst moving forward the boundaries of our knowledge. It does not help on its own in reflecting upon any growing sense of a loss of trust in expertise and science more widely or evidence that would support that. For this we must link scientific process to wider public attitudes and achieve consensus in these arenas as well. However, there is a difference between loss of trust in a specific scientific report, in certain areas of research, or in particular researchers or research groups, and in science more generally.

There are also many different academic disciplines – science is not a monolithic construction. There is also a difference between an increasing propensity to question science and a blanket loss of trust. It is possible to define several reasons for any loss of trust in science. This includes its vulnerability to a relatively small number of potential bad actors who engage in fraud and misconduct; growing issues with reproducibility; the lack of understanding on the limitations of research already highlighted; the lack of agreement in certain areas of research on basic methodological issues; and, the role of the media and social media in shaping attitudes publicly.

From these, this briefing will focus particularly on the dynamics of science production and the values attached to it and especially modern forms of scientific accountability, as well as briefly the new role of the internet and social media.

Science owes much of its authority to the universality of its method, as well as its impersonality and impartiality. However, in recent decades this has led to 'science' being viewed by some as part of the institutional design of society that is not always seen as supporting the wider public's broad interest. In general, in recent decades there has been a growth in monitoring performance through inspections, audits and targets, which are used to enhance standards of accountability and transparency.⁴ This has included further regulation of academia and efforts to detect and limit conflicts of interests so as to improve trust in science. It is not always clear whether these measures have had the desired effect or whether all the right steps were taken in ensuring that science today has the best regimes in place of accountability and regulation? To put it another way, has greater accountability as a proxy for trust encouraged greater trustworthiness in

⁴ Jerry Z. Muller (2018), *The Tyranny of Metrics*, (Princeton and Oxford: Princeton University Press)

research and science? It certainly could be argued that the time taken away to focus on regulation, accountability and the growth of a managerial culture has altered the role of research and scientists in recent decades. As Geoffrey Hosking has said:

*"laying down targets tends to promote behaviour calculated to meet targets, not necessarily perform better in the way those targets are supposed to measure... Time for personal interaction with those affected is cut short and, with it, the chance of mutual trust... might make the professional relationship more fruitful. Targets are chosen because they are readily measurable, not because they adequately capture the personal or professional process. Accountability is supposedly to the public but actually to regulators, civil servants and government ministers. The public suspects what is going on, and the final effect is therefore to intensify, not to ease public distrust of professional people."*⁵

In terms of science, this suggests the importance of reinvesting science with a moral economy that enhances trust. Most scientists are driven by curiosity and are energised by the potential for freedom, the visionary and imaginative possibilities, and a healthy dose of scepticism including a central place for academia in challenging and criticising government. This relates back to the CUDOS norms of communalism, universality, disinterestedness and organised scepticism. Much of modern science, however, is measured by impact and notions such as fostering innovation, which are not bad in and of themselves but when put in a regulatory and accountability framework tend to lead to narrow and at times perverse incentives. In addition, fostering 'innovation' is often understood as useful industrial applications that helps

entrench the perception of science as increasingly government and industry-driven. A more complex understanding of the value of academic enquiry is needed that not solely encompasses the economic but also the intellectual, educational, cultural, historical, and social, which particularly highlights the importance of the humanities and social sciences.⁶

In addition, the arrival of the internet has changed the relationship between expert and layperson: after all, every citizen or organisation can now generate, publish, and disseminate content. Knowledge increasingly tends to be considered as something you can 'search and find' on the internet. The digital channels for spreading knowledge often give users little clarity about who says what in which context and on the basis of what authority or expertise. Sometimes there is 'context collapse': in an online environment where everything is content, the truthfulness of text, image, and sound can often no longer be determined directly from the context. In addition, whether something is true or trustworthy on social media is far less important than whether it is liked, and what is liked has economic value without any account to expertise. Such context collapse has created a technological condition that annihilates dialogue whilst supporting confirmation bias. That is to say that certain technologies, and people's growing power to filter what they see and technology providers growing power to filter for us, have disrupted the routes by which content travels: self-expression, and transmitting content have never been easier, but genuine dialogue can become very difficult if not impossible.⁷ This is part of a wider issue including scientific disinformation

⁵ Geoffrey Hosking (2010), *Trust: Money, Markets and Society*, (Calcutta: Seagull Books), pp.7-9

⁶ Stefan Collini (2012), *What are universities for?*, (London: Penguin Books)

⁷ Cass R. Sunstein (2017), *#republic: Divided Democracy in the Age of Social Media*, (Princeton and Oxford: Princeton University Press)

online and how to secure and anchor trust and trustworthiness in digital societies that will be explored further in a later briefing.

What is needed for trustworthiness?

As mentioned, scientists are often driven by curiosity, however, such motivations are poorly understood more publicly and despite lip service are rarely recognised in a scientific enterprise geared to producing more patents and publications. Acknowledging one's own motivations and the environment one is operating in is necessary in order to be clear on the matters on which one is expert on and those on which one is not. A spirit of self-awareness and self-knowledge of our own limitations is vital in building a trustworthy relationship, and openly and transparently communicating them whilst avoiding commitments that one is unable to fulfil. Similarly, not overestimating or overpromoting one's abilities is equally important, as is ensuring that expertise and research is not inflated in the public arena through the complex process of mediation that takes place between experts and publics, in which the media has a vital role.

Furthermore, in order to be trustworthy, it is necessary to have a good sense of what is expected. Further reflection and thought on the wider impact of 'expert' thought on the culturally and geographically contingent contexts in which that expertise is being deployed is critical in developing ways of knowing that support trustworthy relations and dialogue. It is helpful to keep in mind that there is a difference between being trustworthy and being perceived as trustworthy, and one can be trustworthy in areas where one has little expertise so long as one knows one's limits.

Ultimately, trust in science will depend on finding common ground—a gathering of facts and insights that was carefully established and that therefore got accepted by a community. This is why it is important that we protect science as a societal institution by holding on to the demands of integrity, transparency, independence, and accountability whilst reinvesting in science's moral economy. In short, an open but not over-regulated system of checks and balances is vital for society's trust in science. Only by having such a system in place will it be possible for scientists and scholars to feature as 'trusted experts'.

Reflections

This briefing has aimed to highlight some of the issues that have changed or are changing in relation to trust and trustworthiness in expertise. In particular it has aimed to elucidate some of the underpinnings of current debates and actions and put them into context. In this final section, some reflections on paths forward are suggested for further consideration.

- » The initial response to claims that experts were not trustworthy was to regulate them more closely. Has this approach been effective and if so where has it worked best and where has it not worked? There have certainly been side effects of this regulation and intrusive forms of accountability have been demoralising many academics. Which forms of scientific regulation, incentives and accountability should we maintain, and which should we prune? This would be a task for body or group greater than this briefing can cover, but the importance of achieving transparency and accountability whilst still encouraging academic freedom and endeavour needs to be thought through further. We need to know whether our systems of accountability support the intelligent placing and refusing of trust. How should accountability be best organised if we are to use it as a surrogate for being able to judge things in detail ourselves?
- » The above has highlighted the importance of reinvesting science with a moral economy that values creativity and curiosity. This clearly links to discussions about accountability frameworks and academic incentives but also signals a wider series of questions about what expertise and science are for, and why

experts and scientists become involved in their respective specialisms and fields. What motivates and energises the experts of today? It certainly is not regulatory compliance and accountability paperwork, and we need to consider how to kindle interest and enthusiasm for science and also provide a greater reflection on the mission and motivation of experts and scientists to wider publics. May this also provide a way of connecting the impartial and impersonal personification of science to the affective considerations underpinning decisions of trustworthiness this briefing has outlined? After all, all effective advice involves the role of narrative.

- » Neither science nor expertise are monolithic. To just take science: it is a complex set of differing, at times conflicting, disciplines, fields, individuals, institutions and networks that include focuses from morality and religion to astrophysics. In recent years, there has been increased focus on the need for and value of interdisciplinarity – for want of more space for various academic disciplines coming together to work in partnership – and more such work needs to be supported and encouraged, including the humanities and social sciences where appropriate, and space and time for such cross-disciplinary discussions to take place so that silos do not perpetuate. Nonetheless, there also needs to be further reflection on the different conventions and practices that exist in research and science in the *Wissenschaft* sense of the word. How can people know what counts as trustworthy evidence when what counts as good evidence differs in different scientific fields?
- » Science and expertise play a critical role in the wider regulatory framework, which shapes and influences many people's daily lives. Such

regulation and the science and expertise behind it can be controversial and contested, and at times rightly so. How can we move forward with ways of working that acknowledge that there are different ways of framing problems and different interpretations of issues, but without descending into relativism rather than achieving consensus? This also feeds into wider discussions about how regulation can be a help rather than a hindrance and how the benefits of effective regulation can be understood more widely.

- » The context collapse and self-insulating practices of people and technology providers on the internet and social media are troubling. Contact and engagement in person with a wide range of people, and of differing views and backgrounds, is important for individuals and societies (as well as functioning democracies). Dialogue is essential. It also has to be worked on, it does not come for free. How though can we secure dialogue in an age of social media? And how can we trust online and determine what is trustworthy in a way that respects dialogue?
- » Science, politics, policy-making and publics are all connected in many direct and indirect, and visible and less visible ways. Good trustworthy expertise from scientists is important but it can also be disruptive and often can be unwelcome, especially in the short term. This raises the old chestnut of how to speak truth to power but also how do we speak truth to power and publics whilst nourishing a culture that welcomes expertise and can be tolerant of the odd disruption this brings? In addition, if expertise and science are to engage effectively in the public and policy arenas how can such knowledge be brought to bear, manifested and conceptualised, in widely differing contexts, to

draw together and deliver good trustworthy advice?⁸

- » What are wider publics meant to make of this cacophony of placing and refusing trust, of almost boundless available information, and the feeling of proliferating expertise? Pumping out ever more information does not seem to be helping. Is it a question of placing greater emphasis on understanding how expertise and science as social constructs work so as to enable a better sense of the nature and significance of the 'expertise' being viewed? Would this help us place our trust more accurately and more wisely?

⁸ Susan Owens (2015), *Knowledge, Policy, and Expertise: The UK Royal Commission on Environmental Pollution 1970-2011*, (Oxford: Oxford University Press), p.1



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