

## OPINION

# The advent of 'radical' transparency: Transforming multilateral climate politics?

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## Introduction

'Data is the new oil' is now a widely heard mantra in our Information Age. But is it? And should this be cause for celebration or concern [1]?

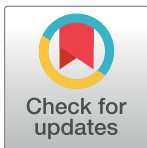
This is a compelling question for global governance of climate change, and the role for climate-related data and transparency in such governance. Transparency, by which I mean here rendering visible through information disclosure, is now at the core of a wide range of global environmental governance arrangements [2]. The reason is straightforward and intuitive: transparency is assumed to be vital to enhancing accountability, informed participation, and ultimately better environmental outcomes. Closer scrutiny suggests that such transformative promises associated with transparency are often not fulfilled, whether for the state-based or private disclosure initiatives now proliferating in the climate realm [3,4].

## Transparency and the Paris agreement

One of the central planks of global climate governance, the 2015 Paris Agreement, prioritizes the generation of state-based reporting about the climate actions that countries are voluntarily taking on [5]. In the absence of legally binding emission reduction targets, transparency is one of its few mandatory obligations. Yet this mandatory transparency does not shed much light on some of the most politically contested aspects of collective climate action, such as whether individual country commitments are fair and ambitious, or where the greatest responsibility lies for taking ambitious climate actions [5]. It has proven impossible to have agreed parameters to generate transparency about such politically contentious issues within this formal inter-governmental process.

What transparency under the Paris Agreement does call for is ever more detailed reporting on greenhouse gas emissions from all countries, even from those with very low emissions. This may well leave the burden of such narrowly-circumscribed transparency to fall most heavily on countries that are least responsible and have the least capacity to generate these data [6]. The Paris Agreement's transparency arrangements also do not prioritize mandatory reporting on adaptation needs, losses and damages from extreme climate events, or key specifics relating to climate finance flows from developed to developing countries. Yet these are all issues of vital interest to the most vulnerable developing countries.

One takeaway from the brief sketch above is that transparency may well empower, but it may also disempower, if the burden of disclosure is unequally distributed, or if it is required from some while the actions of others remain obscure. Setting up and engaging in elaborate transparency systems may also distract from the taking of action itself. Reporting may replace acting, with transparency becoming the end, rather than the means to an end. Or else we may



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drown in irrelevant disclosure, even as the kind of actionable transparency most needed is not forthcoming. Contrary to widespread claims, then, transparency is not a neutral means through which to improve decision-making and reduce political conflicts. Rather, as I have argued in detail elsewhere, it is a site of politics itself, given that what is to be made transparent, by whom and why are highly contested political questions [7,8].

## The advent of satellite-generated radical transparency

How do these dynamics change, if at all, with the advent of Big Data and digitalized forms of ‘radical transparency’? Radical transparency refers to the generation of ever greater volumes of novel data in ever greater detail in almost real time, enabled through satellites, mobile devices, and other digital means, and often facilitated by non-state actors [9]. Its advent is heralded with much fanfare, with the promise of transforming current processes of decision-making and action. A frontier question for climate research and policy therefore is whether radical transparency lives up to this transformative promise.

One important new initiative here is Climate TRACE, a partnership of non-profits, academic institutions and technology companies to use satellites and artificial intelligence to ‘make meaningful climate action faster and easier by tracking greenhouse gas emissions with unprecedented detail, speed and trusted independence’ [10]. Such radical transparency is presented by its developers and proponents as a game-changer for multilevel climate governance. A core assumption behind Climate TRACE is that knowing more will allow us to act in ways that we have not been able to thus far. Or, in other words, that a *step change in transparency is a step-change in politics*.

But it is not at all clear that this is the case. It *could* well be that such radical transparency is a game-changer. Previously unavailable satellite-enabled novel data about emissions (e.g., detailed point source carbon emissions or methane leaks) could empower civil society, litigators and citizens to use such data to hold the powerful to account, depending upon what it is, where the satellite gaze focuses, and if the data are openly available, accessible and actionable [11,12]. But broader questions about the politics of transparency still hold. Ultimately, it matters what data are generated and, most importantly, to what uses they are put and by whom. Equally important are questions about who will have access to and own, not only the novel data, but also the digital novel technological means of generating them, and whether these technologies will be publicly or privately owned.

## Radical transparency and earthly politics: The research frontier

Considering the above, a future research agenda needs to shine greater light on at least two key aspects of ‘radical transparency’ in climate and sustainability governance.

### Eye-in-the sky: What does radical transparency render visible and to what end?

As noted above, a first-order question is to interrogate the kind of information being generated by satellite-enabled radical—and often also non-state actor-led—transparency initiatives, including but also going beyond initiatives such as Climate TRACE [13]. A related crucial question is how the greater transparency such initiatives enable will interface with, and potentially transform, the multilateral politics of climate actions under the Paris Agreement. How does having ostensibly independent, and partially private-actor generated near real-time data on, for example, carbon or methane emissions in different parts of the globe, or climate impacts resulting from extreme events, impact upon highly contested issues of sovereignty, responsibility, and accountability within multilateral climate politics [14,15]?

At stake, and very ripe for further analysis, is thus whether and how such radical transparency will exacerbate (geo-) political conflict, or rather help to further what has been largely elusive so far: enhanced equity and ambition within global climate governance.

### ‘Radical transparency for governance’ versus ‘governing radical transparency’

Transparency is portrayed most often as a key ingredient *in* governance. But who will govern the generation and use of such satellite-enabled ‘radical’ transparency, and how? While the need for governance of radical transparency might not be self-evident, aspects that may require governance include: who controls the (means of) generating radical, novel forms of climate data; who has access to them; and who decides the uses to which they will be put within contested political processes. Governing to ensure inclusivity and voice on such aspects may be necessary, given that control over, and access to, the outputs of radical transparency may be restricted by commercial confidentiality, expensive pay walls, resource or capacity constraints or other considerations, exacerbating existing inequalities in climate politics.

A further complication requiring attention is that governing the generation and use of radical transparency needs to be *anticipatory*, i.e., it needs to co-evolve with rapidly changing technological developments. A research need going forward is thus to assess not only how radical transparency will feed into and shape multilateral climate governance *but also* how to govern—in an anticipatory manner—the generation and use of such transparency itself.

### Reclaiming the ‘radical’ in radical transparency

Considering this research agenda, I suggest a need to reclaim the notion of the ‘radical’ in radical transparency. Instead of equating ‘radical’ with ever larger volumes, velocities, and varieties (the 3Vs) of Big Data, generated through novel digital means in near real time, as is the current emerging understanding, *radical* should rather be understood as the kind of transparency that shines a light on the still largely hidden (from governance) *drivers* of unsustainability and climate harm; a transparency that *pinpoints where greatest responsibility for climate action lies*. While this is no small (t)ask, it is the litmus test for whether radical transparency has a hope of realizing its assumed transformative promise.

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