FROM NUDGING INDIVIDUALS TO STEWARDING COLLECTIVES: HOW TO BOOST COLLABORATION FOR THE SDGS

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A prominent group of behavioral and social scientists recently proposed human collective behavior as a "crisis discipline" to join the ranks of medicine, environmental conservation, and climate science to support planetary sustainability and societal well-being. Increasingly well-equipped with data and tools to interpret behavior of groups of individuals—from collective intelligence in teams to community management of shared resources, or responses to the spread of information across digital social networks—researchers are beginning to draw links between patterns of collective behavior and global-scale environmental, social, and economic processes in real time. Much like the role of environmental scientists expanded over the course of the 20th century from specific research agendas to global-scale policy advice, the role of behavioral and social scientists is set to expand beyond designing incentives or "nudges" targeting individual behavior for single priorities (e.g., vaccine adherence or consumption choices) to helping steward communities of all scales toward a range of intersecting priorities over time.

Elevating collective behavior to a crisis discipline would be a welcome development for leaders everywhere seeking to advance the Sustainable Development Goals (SDGs)—a comprehensive set of global ambitions that demand unprecedented levels of collaboration within and across communities of all scales. For these leaders, often the question is not just what are the best ways to collaborate to preserve life below water (SDG 14) or increase gender equality (SDG 5), but how new approaches to collaboration can advance environmental, social, and economic issues all at once. To adhere to the core SDG principle of "Leave No One Behind," communitywide collaboration needs to be matched by coordination across scales, so that local priorities and problems discussed in town halls are directly reflected in agendas for global-scale action and vice versa.

This implies a complex matrix of actions. The bad news is that, at the midpoint of the SDGs, there is still no clear set of evidence-based strategies or institutions to enable such elaborate global-scale collaboration. Existing research and funding efforts are uncoordinated and shared ambitions and incentives remain poorly defined. Crucially, researchers need to access, share, and develop models for time-series data that can map change in collective behavior—including variables such as group size and composition, priorities, actions, and group cohesion—to changes in environmental, social, and economic outcomes over time.

The good news is that the SDGs themselves offer a ready-made framework to help align key stakeholders. Researchers and funders can use the SDGs to define measurable priorities. They can also use the SDGs to organize and incentivize research streams. The SDGs allow researchers to advance specific SDG issues (e.g., communitywide strategies for climate adaptation, SDG 13, or gender equality, SDG 5) in parallel with research at the intersection of multiple SDG issues (e.g., strategies to address climate adaptation, gender equality, and poverty reduction) and strategies for moving all issues forward at once, like building a movement for planetary-scale altruism. In a similar way, the SDGs can be used to organize emerging data and Al ecosystems that aim to align collective behavior with planetary sustainability and societal impact.

Using the SDGs as a coordination device, researchers, funders, and communities of all scales can commit to three actions in the second half of the SDG agenda:

- Coordinate a global collective behavior research network using the SDGs. Modeled on Future Earth, a "network of networks" for global environmental change research, a global collective behavior research network organized around the SDGs could adopt a 17 Roomsstyle process to curate 17 parallel transdisciplinary working groups (one per SDG) that meet once annually to integrate insights across SDGs and disseminate learnings to policymakers and regulators.
- 2. Convene a global "funders roundtable" for collective behavior science and the SDGs. The goal would be to gather representatives from a cross section of major funders of collective behavior and sustainability research such as the NSF, NIH, ERC, and philanthropic donors; research agencies such as DARPA and ARIA (the UK's new high-risk, high-reward interdisciplinary research agency); innovation funds like XPrize; and other SDG-focussed initiatives. Early outputs might include a landscape analysis linking collective behavior science and global sustainable development and a funder's toolkit for organizing efforts around the SDGs and building SDG-focused consortia.
- 3. Develop a collective behavior data and Al ecosystem using the SDGs. The data methods underlying artificial intelligence can be used to fast-track collective behavior research for the SDGs. One promising proposal would entail communities of all scales creating data-driven models of themselves—aka, "digital twins"—that can capture collective-level behavior (composition, priorities, approaches, and impacts) and progressively surface best shared actions for the SDGs by communicating and negotiating with other digital twins over time. Given that so much of the data and Al tools relevant to collective behavior exist behind the "walled gardens" of big tech infrastructure firms, these firms have a responsibility to join policymakers and regulators in proactive efforts to democratize data and Al tools for broader public good. What would it take for Alphabet, Amazon, Microsoft, Meta, Tencent, Alibaba and other major global data players to work with governments, facilitating organizations like U.N. Statistics, the Global Partnership, Data.org, 3ie impact, Social Science One, and other technical and thought leaders to co-develop a platform where communities of all scales can partner with researchers to create digital twins that link collective behavior to SDG outcomes?

The integrated, indivisible shared ambitions embodied by the SDGs will only be achieved through breakthrough innovations in our capacities for global-scale collaboration. If adequately coordinated, incentivized, and empowered, collective behavior science can play a crucial role in surfacing new strategies for SDG success. The SDGs themselves provide the scaffolding for collective action.