

Telehackathons, Bacteria, and Poverty: A Homeostatic Argument for Collaboration



According to the UN, just .7% of the global gross national product (GNP) is all it would take to eradicate extreme poverty, defined by the World Bank as living on less than \$1.25 daily. Jeffrey Sachs, the former head economist for the Millennium Development Project and University Professor at Columbia, affirmed this finding in his bestseller “The End of Poverty,” arguing that these funds should be used to help communities create their own markets for necessary goods and services. Even Sachs’ staunchest critic, NYU economist William Easterly, agrees that a

collaborative, holistic, and community-oriented approach is necessary to improve living standards and wellbeing for the world's poor.

While significant progress has been made in reducing poverty through investment in sustainable community entrepreneurship and innovation, Sachs effectively argues that a lack of concentrated political will is the reason for the continued existence of widespread human suffering, which is exacerbated by new issues including climate change and tech-catalyzed authoritarianism. It's not that people don't want to donate time or money. Multiple surveys have shown that American citizens vastly overestimate the amount of foreign aid the US gives, and upon learning of the actual rate, tend to support giving more. While the gross amount of US foreign aid is relatively high, the US ranks near the bottom of all nations in the percentage of developmental assistance as a percentage of GNP donated. With this said, the Brookings Institute has found that the amount of foreign aid likely exceeds the amount of aid needed to eradicate extreme poverty in its entirety. Thus, there's a gap between the public perception of aid, the amount actually given, and its impact.

Additionally, current aid has not stopped the accumulation of technological, financial, and intellectual capital in the hands of few entities. As Johnathan Rothwell argues in "A Republic of Equals," lack of access to opportunities that promote innovation and collaboration is the main driver of inequality. In a similar vein, Raghuram Rajan is just one of many economists, including the most recent recipients of the Nobel Prize in Economics, to argue that impoverished communities must be empowered to create and enact their own solutions to their problems. Thus, there must be a healthy balance between competition and collaboration in our increasingly global political economy.

Karl J. Friston, a neuroscientist at University College London and likely Nobel recipient, would not be surprised by these findings. He has argued that every autonomous entity, from the smallest microorganism to an AI system, is self-contained and attempts to maintain internal homeostasis by reducing entropy. But there's only so much an individual can do to control its internal state. For true homeostasis, organisms need to collaborate in order to maximize the utility of each environmental input; research indicates that this is why collaboration evolved in the first place, from the earliest endosymbiotic relationship to our innate capacity to create and conform to in-groups. Indeed, bacteria evolve so successfully because they can share useful mutations horizontally through sex pili, viruses, and mere contact with other bacteria.

Human cognition is based on these principles as well; information is stored most effectively when it is self-referential and thus incorporated into existing neural networks, with both good and bad implications for society. For example, recent collaborations between archaeologists and linguists have already provided great insight into the development of language and technology in human prehistory. On the other hand, researchers in human trafficking have found that sex traffickers create their own derivative cosmologies of justice, fate, and karma to justify their abuse of women, and with time, the victims themselves often adopt these worldviews. As elucidated by Peter Berger and later by Noam Chomsky, the introduction of a new idea into any community immediately exposes it to polarization and reinterpretation across cognitive demographics. Thus, much of the hermeneutical/doxastic practices that arise from such ideas

become splattered across the collective consciousness of the public as disjointed and often erroneous threads of thought. Technology has allowed such threads to grow, eroding trust in institutions across the political spectrum. This is not a surprising phenomenon; if human history is the best predictor of the future of our species, then we should know that the battles between “heresies” and “orthodoxy” are never-ending.

The philosopher Peter Singer, in his famous “drowning child” thought experiment, has promoted empirical collaboration for the purpose of effective altruism, a movement that is largely utilitarian/consequentialist in its outlook. In layman’s terms, Singer argues that if one aims to act ethically, then one should act to maximize the happiness of others in the most effective way possible. It doesn’t take many steps of thought to deduce that technology is a key part of effective altruism’s approach to philanthropy. As technology naturally brings ideas and peoples together, it is most effective when used collaboratively. Some ethicists might go so far as to argue that micro-solutions to macro-problems are *unethical* because of how easily technology improves scalability.

A prime example of a micro-solution is the burgeoning personal wellness industry; think neurocognitive supplements, elective plasma transfusions, and dopamine fasting. These are all micro-solutions to the macro-problem of personal wellness. Besides having little evidence for value, there are too many inputs of health for any one product to generate a cross-sectional effect across organ systems. However, certain behaviors and mindsets have proven effective in promoting holistic wellness, which accounts for social, emotional, physical, and environmental factors.

Thus, it is critical to promote collaboration across disciplinary and institutional guidelines. While the situation has improved, healthcare and global development innovators are still siloed by disciplinary, geographic, and temporal boundaries, leading to redundancy and wasted effort. That’s what motivated my idea for an interdisciplinary telehackathon and the formation of my nonprofit, GreenWell. In conclusion, globalization has shrunk the world, which means the poor are much closer to us than they used to be and more easily reachable. I’m confident we’ll find solutions to many causes of human suffering – we’ll have to if we are to continue thriving as a species. Now it’s just a matter of reducing suffering as much as we can in the interim.

Ajay Dave is passionate about promoting informed collaboration on problems of healthcare, equity, and sustainability in developing countries under the auspices of his nonprofit, GreenWell. He has diverse interests and enjoys writing, making music, and doing stand-up comedy in his free time. His chapbook *Sublimations*, featuring an international body of acclaimed poets and benefitting anti-poverty efforts, is due for release later this year.