

TRANSLATE

Catalyzing Inclusive Growth through Anticipatory Science

Abstract

The number of people living in countries the United Nations classifies as least developed will hit 1.9 billion, or nearly a fifth of the world's population, by 2050. As rapid demographic changes in the world's poorest regions accelerate, there are growing calls to look beyond traditional measures of development and to focus on inclusive growth. Anticipatory science can play a crucial role in this transition. Technologies like wireless internet, mobile payments and drones are already allowing emerging economies to leapfrog stages of development by putting affordable and powerful new tools in the hands of their citizens. Anticipating where the next such technological and scientific opportunities will come from could help map a path towards economic emergence that is both equitable and inclusive.

- Where will the next great leapfrogging opportunity come from?
- How can we ensure equitable access to resource-intensive emerging technologies and innovation infrastructures?
- What is the role of the private sector and local entrepreneurship in catalyzing inclusive growth?

Participants

Moderated by:

Nanjira Sambuli, Policy Analyst, Advocacy Strategist, Fellow; Board member, Digital Impact Alliance, Development Gateway and The New Humanitarian; Member, GESDA Diplomacy Forum, Kenya

With:

Uzodinma Iweala, CEO, The Africa Center NY, Nigeria

Mami Mizutori, Special Representative of the Secretary-General for Disaster Risk Reduction; Head of the United Nations Office of Disaster Risk Reduction; Member, GESDA Diplomacy Forum, Japan

Rebecca Enonchong, Founder and CEO, AppsTech, Cameroon

Momar Dieng, Chief Strategy and Partnership Officer, African Institute for Mathematical Sciences, Senegal

Geoff Mulgan, Professor of Collective Intelligence, Public Policy and Social Innovation, University College London, UK

Highlights

Innovation drives economic growth but does not benefit everyone equally. Inclusive growth – economic growth that is distributed fairly across society and creates opportunities for all – is a major tenet of the United Nations 2030 Sustainable Development Agenda. Before anticipatory science can advance green development in a way that does not leave some behind, a clearer understanding of what constitutes 'innovation' and 'growth' is needed. "You have to ask yourself: 'What are we building capacity for?'" said Momar Dieng, a mathematician with expertise in African politics and election statistics. Capacity-building reflects "agency and the ability to imagine a new future", he said, and requires more community-level effort. By extending GESDA's science outreach beyond the academic setting and its diplomatic outreach beyond "governmental diplomacy" to include more of civil society, he added, "we can maybe use the forces of capitalism in a productive way".

The 2008 financial crisis was a dramatic wake-up call that showed growth as we know it does not work for all and puts everyone's well-being at risk, according to the Organization for Economic Cooperation and Development (OECD). The pandemic further inflamed the world's many inequalities, ranging from vaccine access to extreme poverty. World Bank statistics show the pandemic added 97 million more people to the ranks of the impoverished in 2020, a historically unprecedented increase in global poverty. An informal online poll of the audience showed only a "moderate" level of optimism among respondents that scientific or technological development could eventually help accelerate inclusive growth. There also remain "huge imbalances" among the places where scientific research is conducted and the fields that are prioritized for research, said Geoff Mulgan, a telecommunications expert, author, journalist, and organizational co-founder, who is part of a United Nations project gathering data about scientific research related to the UN's 17 Sustainable Development Goals, or SDGs, for 2030. For anticipatory science to address these disparities, science and tech education in less-developed nations will need to be improved. Doing so would chip away at some of the patronizing attitudes towards startups in developing countries, according to Nanjira Sambuli, a Kenyan policy analyst who sits on several high-level advisory boards of the UN and other international organizations. She said scientists and diplomats also need to listen better to Africans by tapping into their oral traditions.

It will take some time to change entrenched Western preconceptions about how to get past traditional development measures, according to Rebecca Enonchong, a Cameroonian-born entrepreneur who splits time between her US and African ventures. She pointed to a spate of pandemic-fuelled funding

that encouraged African entrepreneurs to create apps that she said were not really needed. "We are replicating the Silicon Valley model, which is very little money going to diverse founders, and we are applying it to Africa, where we are saying that this is what a successful founder looks like: he looks like Mark Zuckerberg," she said of Facebook's founder. How to proceed then? "Very uncomfortable discussions", Enonchong advised as a way to address racist tropes and stereotypes. "GESDA is perfect for this kind of uncomfortable conversation, where science cannot be put in a silo. And the definition of science cannot be 'Einstein', because that really limits who can be a scientist."

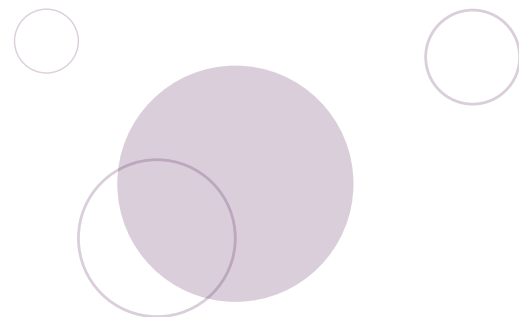
As a medical doctor and novelist, Uzodinma Iweala said he sees how much of science is culturally constructed "by the way you are trained to see the world", and how startup resources often are awarded based on who "looks like" an innovator. It reflects a historically uneven distribution of wealth and double standards towards failure: okay for Westerners, not so for Africans. "Everybody hates to talk about the reason for why the money is with Silicon Valley folks, or the money is with American or British or Swiss foundations," he said. "But let us not fool ourselves into then suggesting that a certain population is not capable."



He also pointed to the examples of an enslaved West African man who introduced the idea of inoculation to the United States in the early 1700s, and to the Black female slaves that were subjected to early U.S. gynecological experiments without anaesthesia. In both cases, prominent white men were credited with major scientific advances. "So, who is the scientist?" Iweala asked. "I think it is a question that we legitimately have to ask." Enonchong agreed, citing as an example her work as board chair of AfriLabs, a pan-African network of more than 300 innovation centres across 50 African countries. It provides basic support – internet access, rent, or a garage for experimenting – and promotes a new mindset on the continent. "We need to introduce into our culture the ability to fail, that it is okay to fail," she said. "If you

can take failure as a lesson, it will help you evolve.”

An even more basic requirement of inclusive growth is the need to reduce disaster risks that plague developing nations, said Mami Mizutori, a veteran Japanese diplomat and lawyer who heads UNDRR, and anticipatory science could play an important role in accomplishing that. Her agency has one science-driven project for at-risk countries that looks at gaps in their data and tries to determine how more investment in resilience prevention could pay off. “It is not very easy to give accurate metrics about resilience,” she said. “That is why we invest a lot in climate mitigation, but not much in climate adaptation or resilience.” The solution? More open-source data and efforts to boost scientific literacy, she said, which requires international cooperation.



Takeaway Messages

New definitions of innovation and growth are needed to promote inclusivity.

Crowdsourcing and capacity-building at the local level are important tools.

Closer examination of the relationship between science and culture is needed, including the idea it is okay for up-and-coming entrepreneurs to repeatedly fail before encountering success.

More efforts are needed to cultivate young leaders in science, technology, and diplomacy.

The history of science and technology reflects culture, prejudice and, sometimes, brutality.

More “uncomfortable” conversations are needed among leaders in science, technology, and diplomacy to promote more diversity, equity and inclusion.

More information

[Session recording on YouTube](#)

[Related interviews: Nanjira Sambuli \(part one\), Nanjira Sambuli \(part two\), Rebecca Enonchong & Uzodinma Iweala](#)

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