



UNDP Future of Development

High Level Strategy Lab: Futures and Complexity

11 November 2020



Synthesis

This paper is a synthesis of the UNDP Future of Development Strategy Lab discussion on futures and complexity, held on 11 November 2020¹.

Reflections into the future

As we look into the future, where are we starting from – and what don't we know?

Covid-19 is the greatest development disaster of our lifetimes. **It will derail the SDGs** unless we take drastic action that far exceeds the inadequate response to date. Only 1% of rich countries' \$12 trillion investment has gone to the developing world. Evidence so far suggests that we are “building back worse”, with the vast majority of stimulus funds invested in fossil fuel- and capital-intensive projects.

The **impact of Covid is highly differentiated**, showing that the risks posed by pandemics can be as asymmetric as any other. In Singapore, for example, migrant workers were most frequently affected. In Pakistan, earnings ceased abruptly for 24 million breadwinners in the informal sector or day-wage earners, impoverishing some 160 million individuals. Covid has crushed small businesses, household service jobs and livelihoods. Although emergency cash programmes bought some breathing space, the impact on livelihoods will be lasting. Parents are removing children from school, cutting short their education; children are at risk of malnutrition and stunting. These are lasting effects that degrade human capital, exacerbate inequalities and weaken preparedness for future challenges. Unless a Covid vaccine is fairly distributed, inequalities will increase further.

Citizens' future expectations

The immediate, life-threatening challenges of Covid have seen citizens turn to governments with **hugely increased expectations and demands**. The pandemic has shown that sufficiently determined governments can indeed act differently. The Pakistani government, for example, recognizing that the conditions existed to act at scale (smartphone penetration, internet connectivity, unique individual IDs, commercial bank partners, data analytics capacity), launched a huge emergency cash programme.

At the same time, governments' capacity to respond has been constrained by their **limited fiscal space**: already tight for those in IMF programmes, exacerbated for all by plummeting production and tax revenues at the same time as the need for public stimulus, subsidies and social protection has exploded. UNDP, given its unique cross-cutting mandate, has an opportunity to help broker the broader dialogues needed – for example, bringing ministries of finance into the development conversation and helping embolden governments through partnerships to contemplate formerly taboo policy options.

¹ This paper is an interpretation of the discussion hosted by UNDP on the future of development and does not necessarily reflect a consensus view of the issues presented or agreement by participants, including UNDP.



What role should **governments of the future** play? Vending machine, control tower, or platform? How can governments best govern the use of technology and resources and reduce the risks of rentier capitalism and “winner takes all”? Providing order and regulation is no longer sufficient; governments need to become more of a platform. They can do this in three ways: facilitating (managing potentially combative or productive dialogue); convening multiple stakeholders and communities; and acting as stewards who hold in trust the assets and future long-term interests of their societies.

In thinking about how governments’ role might evolve, we should consider how can we **minimise the dysfunctions** in existing systems. For example, while not abandoning the positive aspects of competition in a meritocracy, we should recognize that if taken to the extreme these positives can become systemic problems.

Rethinking human wellbeing

Imagining our future means thinking about human wellbeing writ large, beyond continuing economic growth. We should kick our **unhealthy addiction to GDP** as the only or best measurement of progress or value and find more holistic metrics of wellbeing. The World Happiness Report, for example, found the best predictor of happiness was not income or life expectancy but the number of people one could count on in a crisis – an indicator so small as to be unnoticeable to policy makers.

Covid has highlighted some of these less obvious, less tangible aspects of wellbeing. These are often policy blind spots, difficult or unpleasant to contemplate, such as the importance of encompassing **mental health** within development, not just treating it as a side issue.

The **value of community** is another such area whose importance has been overshadowed because it is typically governments and markets that define development’s direction, and it is from their perspectives that we tend to see the future. In doing so we may overlook the role of communities and other types of collective action which may organize differently or look atypical. Yet communities have a big part to play in the governance of public goods. Covid has shown this in practice, whether in countries with limited government capacities where people rely on their neighbours for basic assistance in a crisis, or in richer countries where the value of physical social networks or hubs is revealed only once people are cut off from them because of lockdowns. It has also shown the potential for behavioural change that can strengthen communities; young people – as likely to die of Covid as to be struck by lightning – have voluntarily given up their freedoms in the interests of protecting the old and vulnerable.

Future economies

Human wellbeing may be about more than income, but no-one can flourish without a livelihood. The **care economy** – comprising everything that invests in developing human capacities: education, health, child and elder care, therapy, coaching, community care, etc. – is likely to prove a growing part of future economies. Innovative thinkers like Mariana Mazzucato, Hilary Cottam and Heather Boushey, considering how the public and private sectors interact, invest and innovate, including in healthcare, might be the Keynes and Beveridges of our day.



The care economy is ripe for productivity boosts through new technology and automation of routine physical aspects of care. Its major economic potential merits **serious investment in people and skills**; in the US, for example, it has the potential to deliver meaningful increases in per capita incomes (assuming free – or at least affordable - healthcare and education). The state can play a role in spurring innovation and encouraging open technology to help build this care and connection infrastructure.

Yet care and community, while they can help build resilience, don't provide universal answers. They won't move per capita incomes from \$1,000 to \$20,000, nor solve the **labour challenges** which Africa, for example, faces. Over the next 10 years, as automation continues to supplant lower-skilled jobs in labour-intensive manufacturing (killing many countries' comparative advantage), Africa will see 100 million new entrants to its labour markets. Without real job prospects, the leapfrogging that AI and digitalization may allow Africa in fintech or telehealth will be of little benefit to these new job seekers (whose options may be further limited if migration to richer countries is curbed). **Digitalisation and new technologies may open new divides**, not close them. Developing countries have to consider how they can attenuate the economic polarization that may result.

Technological change

Four domains of **general-purpose technologies** are changing our world unlike anything since the coincidence of electricity, the telephone and the internal combustion engine. These are AI and computation; renewable energy; synthetic biology; and new manufacturing techniques like 3D printing. These technologies are not just new, they are improving some 20-50% every year – a rate of change so rapid it is uncomfortable. They are resource efficient. Their considerable benefits are largely predictable because they rest on proven science. Some, at least, are distributed more equitably (Azerbaijan, the best-endowed country in terms of potential solar capacity, outstrips the least-endowed (Norway) by a factor of 4, whereas the comparable ratio in oil between countries is 1 million to 1).

But technologies come with risks. First, the **split in governance of technology**. The standards that govern technology are increasingly diverging, set either by the US or by China (with the EU a third player). Developing countries may be forced to choose between the two. This is a more existential choice than, say, earlier choices to align with one of the Cold War blocs and acquire Soviet or US military technology. The technologies at stake today are the critical systems of digital infrastructure on which governance runs and citizens exercise their rights.

Second, developing countries risk **getting left behind in the “winner takes all” tech markets**. Dominant tech players can easily account for 80-90% of the market, their dominance built on intangible and strongly protected intellectual property assets. Emerging economies wanting to access tech innovation may find themselves at the mercy of rentier capitalism, with profits all accruing to those US or Chinese companies who own the intellectual property.



Dynamics of change and disruption

Nature and culture as complex systems

In considering the future we are dealing with complexity. **Nature and culture are complex systems:** they are dynamic and constantly changing, their components are interrelated and – unlike machines – the very development of the system becomes a factor affecting its development. Such systems embody uncertainty. They present so many fluctuations and contingencies that they evolve by pure chance. If the system is fractured at some point, it rearranges itself to cover the fracture and continue to function. But if the fracture, not merely local, affects the entire system, the system itself mutates in order to continue functioning. Covid is one such global fracture, reminding us all that people and nature are entwined and that human actions shape the planet.

We are now living not just in the Anthropocene, but in a “**Coronacene**”. Our challenge is to respond at appropriately large scale (of geography and time) and to adapt everything: structures, ways of working, and relationships. “Change will come as a huge wave. Let us be good surfers.”

It is insufficient to contemplate this kind of complexity through a **unilateral worldview**. For example, consideration of Covid responses in Western countries tends to reduce to two alternatives: either lock down societies and economies to spare lives at any cost; or (and this option was considered hardly tenable) don’t sacrifice economies and young lives for the sake of a few elderly people. This framing of options was applied to Africa without thought of the impact of lockdowns on millions of people prevented from earning a daily wage and feeding their families. In the event, Covid’s health impact in Africa to date has been far smaller than the disaster predicted by Western media, even in countries that did not lock down – certainly far fewer deaths than, say, from malaria.

This unexpected scenario cannot simply be attributed to African countries being better prepared; on the whole, they were not. It underlines the need to **investigate, with broader mindsets** than the narrowly Western, what it is we don’t understand about such complex crises. Complexity is nothing new; Indigenous peoples like the Maori or Pacific Nations remain attuned to the complexity of the world and nature. We may see something of the future of development by looking elsewhere. “Instead of looking ahead, let’s look around.”

Building a new consensus amidst diversity

The world is more prosperous, but unstable. We have neglected social cohesion and now need a new consensus. Covid has created huge disruption, amid already polarizing views. But in destroying the Washington consensus (and Brussels’) it has at least **opened up space for a new one**. It has shown that governments and public institutions remain the most efficient way to manage long-term risks and provide the massive short-term investments that crises demand. It has lessons for governments in redefining their scope of action and managing policy differently, for which they need to be held accountable, including through new metrics like social rate of return. The increasing expectations of their governments from citizens, especially the young, offer a positive opportunity for change.



Moreover, Covid is forcing us to **reinvent development**. The traditional patterns of foreign aid (e.g., majority-loan programmes, or the 0.7% GDP goal), neither logical or needs-based, are no longer what developing countries need or want. Many African countries are re-thinking the terms of their relationship with China. Covid offers an opportunity to rethink how developed and developing countries partner and what they can learn from each other, building greater global cohesion out of the current fragmentation in the process.

Covid has also prompted some disquieting reactions. For example, the relatively successful response to the pandemic in China is encouraging some young people to **question the efficacy of democracy**, wondering if other regime types are not better equipped to deliver rapid results.

How we describe our future

In the yearning for consensus and stability amid disruption we should remember that, in an interconnected world where the interests of peoples and planet are entwined, **plurality allows space for differences** and incongruences. While we need to adapt to constant uncertainty, it may be misguided to equate this with attempting to eliminate risk, a term that implies asserting control of our environment (and which is not used by Indigenous peoples whose wisdom derives from thousands of years of adapting to crises and change). Indeed, when Covid's main lesson is one of human-planetary interconnectedness, is it helpful to use a term that emphasises control and assumes power? Who and what are left out? The horizons of our future are usually painted as open views of freedom and choices; but change means closing options too, and the possibility of exclusion.



Designing for complexity and uncertainty

2020 has hardly been a good year for **multilateralism and global institutions**. As Covid hit, countries turned inwards and focused on national interests; it was clear that while global integration had come a long way, global cohesion had not. Concerted multilateral action is vital (reinforcing the Paris Agreement, turning WHO into a pandemic “fighting force”) if we are to avoid a downward spiral into a dystopia where populism grows in proportion to inequality and fragility.

Yet does the combination exist of intellectual leadership and a groundswell of public demand for a better, fairer post-Covid world? The establishment of the welfare state in post-WWII Britain prospered because of its intellectual foundations in Keynes and Beveridge and the wide public support it enjoyed, rather than because of any individual political leadership. Unlike that context of strong public solidarity, today’s civic and political environment seems too fragile to nurture the kind of **international institutions that can foster solidarity and attract public support**. Yet unless we can transform our global institutions so that they connect to people on the questions that matter to them (adaptation to automation, labour markets, dealing with climate threats or pandemics), global solidarity will fragment still further.

Solving such global and societal challenges requires complex, long-term, coordinated policy solutions. Health care capacities, for example, suddenly urgent due to Covid, cannot be built overnight. But policies and **investments for the long term are hard to design and explain in a world fixated on short-term results**. They are especially hard to implement in democracies oriented around a four-year election cycle; authoritarian regimes and leaders in power for decades, some argue, can look to a much longer horizon. International organisations, however, should provide this kind of longer-term policy outlook.

From hierarchies into hubs

One way of adapting to a world of complexity and uncertainty could be for global institutions to flatten from **hierarchies into hubs**, so their value lies in offering a network to connect myriad different actors, including relevant national and local networks in public, private and civil spheres. Additionally, for real impact, these networks need to attract investment. That requires **new, rigorous metrics** to compel investors: straightforward for the likes of GAVI who can point to numbers of children vaccinated, less easy for more nebulous economic or societal goals.

Now grown large and unwieldy far beyond their original smaller memberships, global institutions need to organize themselves along lines of **variable geometry** à la EU or WIPO, with subsets of member countries collaborating on their issues of particular interest. Government institutions similarly should strengthen their networking and connective power (e.g., by encouraging staff to rotate between public, private and civil society sectors).



The next generation commons

Access to relevant data, knowledge and experience is crucial to the creation of a next generation global commons and for designing 21st century institutions in an uncertain world. Yet, while you can Google anything, it is still very hard to get the knowledge you really need.

In 2020 we have seen great examples of global coordination around knowledge as public goods. The Covid-19 genome sequence was shared early through **open source technology**. The Oxford Covid vaccine is based on open intellectual property. Over 80,000 science papers have been published on the coronavirus, many of them available on open access or publishing on preprint services, since January 2020. These are institutional frameworks for global public goods, enabled by technologies with benefit-driven governance, that allow the experience of individuals or communities addressing issues in their own particular context to be taken to global scale. But it is still very difficult to access digestible science on, say, coral reefs or malnutrition or future technological trends – because it is no-one's job to orchestrate it. There is also a **huge imbalance in scientific R&D**, with 90% of global spending in developed countries and China.

While the world's most valuable companies from Google to Alibaba are based around data, there are no remotely comparable public institutions. This makes it hard to get the data we need to take action on the SDGs. No **public knowledge platform exists** to connect the extraordinary volume of innovation at grass roots level – leaving linkages to be made ad hoc and innovators endlessly reinventing the wheel. Nor does any global institution systematically marshal the evidence of what works, in sanitation or food or mental health, for the benefit of users on the ground.

Technology makes global commons platforms perfectly feasible, and there are huge capabilities in the private, military and intelligence sectors – but no institution has the responsibility. Building a **global commons platform around data** over the next decade, based on variable geometry and coalitions of the willing, is key to success on nearly everything else. These are potentially tasks for UNDP. While its influence on the ground is necessarily limited by its funding, it has the power to bring about change at scale by creating the capacity for collaboration on these big questions.



Annex - List of Participants

(in alphabetical order)



Aaron Maniam (Singapore) is a curious generalist -- a civil servant by profession, a poet by calling, an educator and diversity facilitator by choice and all by passion. As the first head of the Centre for Strategic Futures (2010-2011), he and his team analysed long-term trends at multiple levels and their significance for Singapore. In his current role as deputy secretary at the Ministry of Communications and Information, he coordinates policy on various aspects of digitalisation, including digital transformation of the economy; regulation of telcos, data, AI and other digital infrastructure; digital inclusion and access in social policy; and digital diplomacy. He is completing a PhD comparing the digital transformation efforts by the governments of Estonia, New Zealand and Singapore. He is working on his third collection of poems.



Achim Steiner (Brazil, Germany) is a global leader in sustainable development and international cooperation. He lived and worked in many countries in Africa, Asia, Europe and the Americas championing economic development, sustainability and equity, and has been a vocal advocate for the SDGs. Steiner was elected by the UN General Assembly in 2017 to head the UN Development Programme (UNDP). Prior to UNDP he was the Director of the Oxford Martin School and previously led the UN Environment Programme. He was also Director General of International Union for the Conservation of Nature; and the Secretary General of the World Commission on Dams. His awards include the Adam Smith Prize for Environmental Economic Policy and the Tällberg Foundation Leadership Award for Principled Pragmatism.



Anne-Marie Slaughter (USA) is the CEO of New America, a think and action tank dedicated to renewing the promise of America. She is also the Bert G. Kerstetter '66 University Professor Emerita of Politics and International Affairs at Princeton University. From 2009–2011, she served as director of policy planning for the US Department of State, the first woman to hold that position. She received the Secretary's Distinguished Service Award for her work leading the Quadrennial Diplomacy and Development Review, as well as meritorious service awards from USAID and the Supreme Allied Commander for Europe. Prior to her government service, Dr. Slaughter was the Dean of Princeton University's School of Public and International Affairs and the J. Sinclair Armstrong Professor of International, Foreign, and Comparative Law at Harvard Law School from 1994-2002.



Azeem Azhar (UK) explores the intersection of technology and society. He is the founder of Exponential View, the leading newsletter and podcast building which explores the political economy of the exponential age. He is also an active angel investor, as well as an advisor to the top management of a number of global firms. He is a venture partner at Kindred Capital, an early-stage VC firm. He sits on the World Economic Forum's Global Futures Council on Digital Economy & Society, on the board of the Ada Lovelace Institute, and of Beit, a quantum computing startup. Previously, he founded PeerIndex, a big data analytics firm which was acquired by Brandwatch. He has had senior roles in global media businesses and started his career as a journalist where he was a writer at *The Economist* and *The Guardian*.



Sir Geoff Mulgan (UK) is Professor of Collective Intelligence, Public Policy and Social Innovation at University College London (UCL). From 2011-2019 he was Chief Executive of Nesta, the UK's innovation foundation. Between 1997 and 2004 Geoff had roles in the UK government including director of the Government's Strategy Unit and head of policy in the Prime Minister's office. From 2004 to 2011 he was the first Chief Executive of The Young Foundation. He was the first director of the think-tank Demos; and has been a reporter on BBC TV and radio. He has a PhD in telecommunications and has been a visiting professor at LSE and Melbourne University and a senior visiting scholar at Harvard University. He is the author of many books including *The Art of Public Strategy* and *Big Mind*; how collective intelligence can change our world.



Hervé Berville (France) is a French economist and politician. He was elected to the French National Assembly on 18 June 2017, representing the department of Côtes-d'Armor for La République En Marche! (LREM), the centrist party founded by the current French President Emmanuel Macron. Hervé became one of the youngest members of the French National Assembly, He's also spokesperson of this party. In the French National Assembly, Berville is a member of the Committee on Foreign Affairs. He is the author of a report on the modernization of France's overseas development policy. He is also a member of AFD's Board of Directors. In April 2019, Hervé was appointed Special Representative of President Macron to attend the Commemoration of the 25th anniversary of the 1994 genocide against the Tutsi in Kigali, Rwanda.



Ian Goldin (South Africa) was the founding Director of the Oxford Martin School (2006-16). He is currently Oxford University Professor of Globalisation and Development, Senior Fellow at the Oxford Martin School, Director of the Oxford Martin Programme on Technological and Economic Change and a Professorial Fellow at the University's Balliol College. Goldin initiated and was Vice-Chair of the Oxford Martin Commission for Future Generations. From 2003-2006 he was Vice President of the World Bank, and prior to that the Bank's Director of Development Policy. From 1996 -2001 he was Chief Executive and Managing Director of the Development Bank of Southern Africa and served as an advisor to President Nelson Mandela. Previously, he was Principal Economist at the European Bank for Reconstruction and Development, and Program Director at the OECD Development.



Luiz Alberto Oliveira (Brazil) is the curator of the Museum of Tomorrow in Rio de Janeiro. He is a physicist, with a PhD in cosmology from the Brazilian Center for Physics Research. He was a researcher at the same institution's Institute of Cosmology, Relativity and Astrophysics, where he also worked as a professor of history and philosophy of science. He has been an associate professor of the School of Communication of the Federal University of Rio de Janeiro and a lecturer of the Brazilian Society of Psychoanalysis. He is also a scientist-in-residence for the Dynamical Encounters - International Art Workshops project. He was the scientific editor of the TV program "Globo Science" (1997- 2001).



Rebecca Enonchong (Cameroon) is the founder and CEO of AppsTech and I/O Spaces. She is Board Chair of Afrilabs, a Pan-African network of over 200 innovation centers supporting over 1 million entrepreneurs in Africa. She is Chair of ActivSpaces (African Center for Technology Innovation and Ventures), an incubator in Cameroon. Forbes magazine listed her as a top female tech founder in Africa. Rebecca has spent much of her career promoting technology in Africa. She was the founder and Chairperson of the Africa Technology Forum, a non-profit dedicated to helping technology startups in Africa. She is also a founding member of the African Business Angel Network (ABAN). She also sits on the board of Venture Capital for Africa, of Digital Africa, the African Media Initiative, Eneza Education, Suguba and the UNECA Center for Digital Excellence.



Sania Nishtar (Pakistan) is Special Assistant of Pakistan's Prime Minister and Federal Minister, Poverty Alleviation and Social Safety Ministry. She is the founder of Ehsaas, the Government's flagship social protection program, and leads its implementation. She also chairs the Benazir Income Support Program and the Government of Pakistan's Council on Poverty Alleviation. She is a member of the UN Global Alliance on Poverty Eradication. She is the former co-chair of WHO's High-Level Commission on Non-communicable diseases along with the presidents of Uruguay, Finland and Sri-Lanka. She is also a member and former chair of the WEF's Global Agenda Council on the Future of Healthcare and has recently chaired the U.S National Academy of Sciences Global Study on the Quality of Healthcare in low and middle-income countries.



Yoko Akama (Japan) is an Associate Professor in design in the School of Design, RMIT University, Australia, and an award-winning design researcher. She is committed to cultural sensitivity, diversity, and participation to pursue a design practice that deeply engages with communities. This practice is shaped by working with regional communities in Australia in strengthening their resilience for disaster preparedness, and with Indigenous Nations to enact their sovereignty and self-determination. This practice is recognised nationally and internationally, most notably in Designing Social Innovation that aims to support communities to creatively and collaboratively tackle intractable problems. She is co-author of *Uncertainty and Possibility* (2018) published by Bloomsbury, and was recognised by The Australian in 2020 as the leading researcher in Visual Arts.