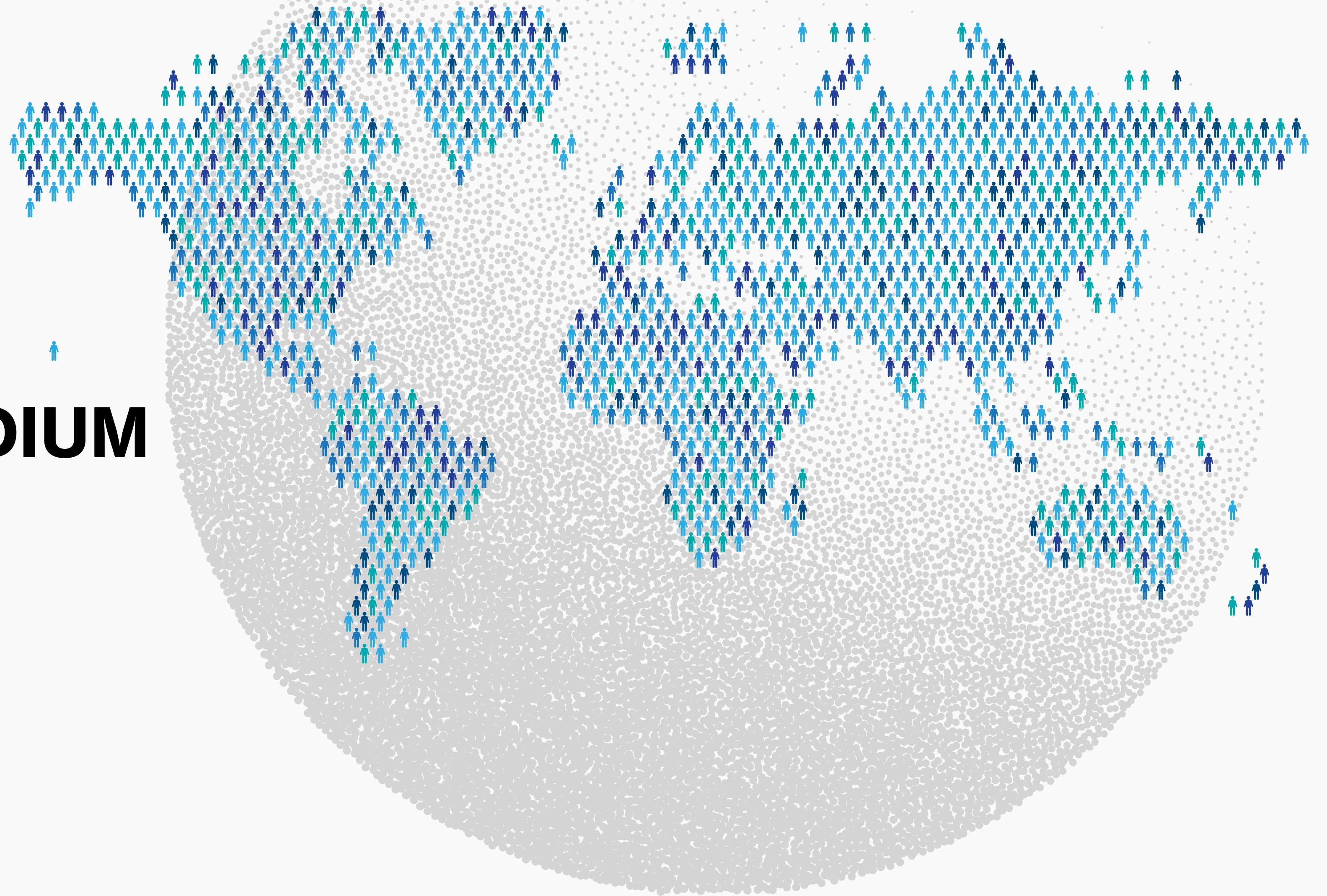



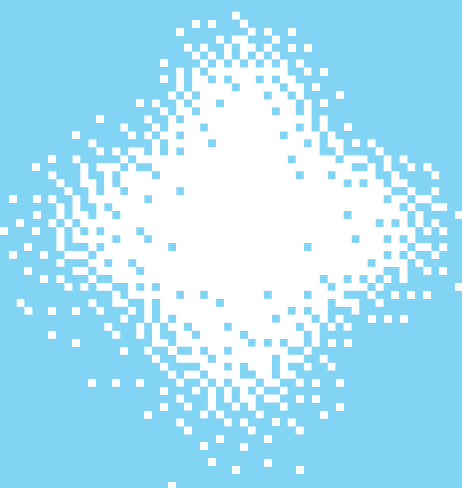


Imagining a Digital Economy for All in 2030: **GLOBAL COMPENDIUM**



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EXECUTIVE SUMMARY

Imagining a Digital Economy for All or IDEA 2030, with support from the Mastercard Impact Fund, is a research, dialogue, and impact program inspired by three core Fund principles: **innovation, learning mindset, and collaboration**. The section below focuses on the innovation that undergirds our approach to research and the generation and dissemination of insights. The *Blueprint for Action* section expounds on how we apply the principles of learning mindset and collaboration.

We launched the initiative with the idea that digital technology is both multiplier and divider: it provides a pathway to inclusive growth, while digital divides risk leaving many even further behind. We aimed to understand where and why this duality manifests, what actions must be taken, and by whom to boost the multiplier and close the divides. We take the bottom-up view of how digital access affects lives and livelihoods from the perspectives of consumers and entrepreneurial small and medium businesses and the top-down view of policymakers, industry leaders, donors, and multilateral organizations effecting change at sub-national, national, and international levels. It is also clear that digital infrastructures – whether public, private, or hybrid – and the inclusive availability of products that operate on them are powerful force multipliers that can help move the needle on the goals for sustainable development set out for the year 2030. With this vision in mind, we named our initiative IDEA 2030.

The launch of IDEA 2030 in March 2020 coincided with a unique moment in human history: a global pandemic was declared, and wherever possible human interactions – economic, social, and political – sought refuge on digital platforms.

Around the globe, this experience underscored the remarkable versatility and resilience of digital technologies and their varied applications and the depth of digital inequities both within and across nations. Access to education, healthcare, jobs, payments, commerce, and critical information were all primarily available for those on one side of the digital divide – it was a different story for those on the other side.

Reflecting on the worldwide lockdown – and the wealth of data on digital living and livelihoods – we identified six primary themes undergirding much of our global work: **the future of work and learning, responsible business, closing the digital divide, responsive and inclusive policymaking, spotlight on Africa, and cash paradox**. Much of our work touches on more than one of these themes. For each theme, we explored a broad array of research questions, a sampling of which is included below.

FUTURE OF WORK AND LEARNING

How is the nature of work and education changing? How might technology improve the way people work? What new tools might be harnessed for inclusion? How did different

parts of the world use digital technologies to manage life (including expressing solidarity and maintaining social connections) and work through a pandemic? How might education technologies be used for nimble upskilling in a time of rapid change and high demand for cutting-edge skills? How did digital technologies fare in response to an acute crisis, such as an invasion (Ukraine)?

RESPONSIBLE BUSINESS

What is the role of the private sector in achieving a more inclusive, equitable future? What are private sector players doing to tackle misinformation, improve diversity among their ranks, and invest responsibly in the Digital South? How can AI be inclusive and used for good? How do small businesses and startups use digital technologies to achieve sustainable development goals? How do we educate the next generation of digital inclusion leaders?

CLOSING THE DIGITAL DIVIDE

This theme addresses the foundational aspects of the digital divide: how do we get more people online? How do we do so equitably? What is the state of digital payments around the world, and how did it change over the course of the pandemic? What happened to cash?



EXECUTIVE SUMMARY

RESPONSIVE AND INCLUSIVE POLICYMAKING

How are governments and policymakers responding to innovation and change? Are policies meeting the moment and in an inclusive manner? Which governments are leading the way? How are less developed countries using digital technologies for job creation and growth? How can AI be inclusive and used for good?

SPOTLIGHT ON AFRICA

How might countries on the continent learn from one another to expedite social and economic growth using digital technologies? To what extent did African women make progress to parity in access to digital technologies during the pandemic? What is the role of systems orchestrators in advancing the future of work in Africa?

CASH PARADOX

As we reflect on the pandemic, and begin to untangle the data, a payments paradox is emerging: Covid-19 accelerated the digitalization of payments while at the same time, consumers hoarded cash. In the US, for example, the value of money in circulation grew about twice as fast as the historical average. In India, the “currency with the public”

grew by 14%, reaching a record high of Rs23.41 lakh crore (\$310 billion) in 2020. Digital Planet will continue to follow these developments, examining what it means for both digital and financial inclusion around the globe.

By answering these questions, we validated some of our prior knowledge, discovered new insights, and were occasionally surprised by some counterintuitive findings.

Under our future of work theme, we looked at which countries were most prepared to lockdown and go into remote working mode. We found that readiness to lockdown (internet resilience and robustness of digital platforms) did not match up with social distancing mandates. In other words, the countries (like the Netherlands and Singapore) most-ready to socially distance did not always do so. Some of the least-ready countries, like India, locked down early and aggressively, despite being less than digitally ready. Less wealthy countries were most vulnerable in the pandemic. The lack of digital readiness forced a grim choice on policymakers – particularly those in the Global South – between economic health and public health.

AI will undoubtedly influence the future of work and learning on many fronts. Our work found that diversity among AI

workers is even lower than that of the broader technology industry. More women and greater racial diversity are essential to shaping the AI-enabled economy – and our collective future – in a more inclusive manner. AI is poised to disrupt the world of work – not only routine tasks already being taken over by automation, but nonroutine tasks as well. Given this reality, the need for rapid, responsive upskilling has never been greater. We dove into three cases of education technology companies globally at the forefront of the upskilling challenge.

Eroding faith in institutions has led to a global population that often appears more trusting of business than government. Many business leaders are rising to the call, devising innovative solutions to the climate crisis, fighting disinformation, and making strides toward more diversity. The expectations for responsible business conduct are high, and the private sector will be a crucial partner in solving problems and closing gaps to advance sustainability and inclusion.

One pernicious gap in immediate need of closure is the digital divide. While the pandemic did provide a boost in internet usage around the globe, the progress has largely been uneven. The gaps between men and women, urban and rural dwellers, and the rich and poor stubbornly remained,



EXECUTIVE SUMMARY

with a few small rays of hope for women in the Middle East & North Africa, and sub-Saharan Africa.

The pandemic and resulting shocks tested the skills and nimbleness of policymakers at all levels of government around the globe. In nearly all our work on responsive and inclusive policymaking, there were bright spots – government leaders who harnessed technology to bring value to their citizens through innovative approaches like virtualized healthcare, digital public services, intelligent data governance, and balancing innovation with inclusion.

Looking ahead to the future, we suggested paths forward to boost the multiplier effect of digital technologies: we outlined recommendations on [where to find top AI talent around the globe](#), [connected Ukrainian tech workers to companies in need of talent](#), [trained the next cohort of digital inclusion leaders](#), and [advised governments on how to navigate crises using innovative technologies](#).

The following links highlight a selection of our research, writing, and other interventions to boost the multipliers of digital technology and close the divides – we thank you for joining us in our journey toward Imagining a Digital Economy for All in 2030.

IDEAS AND INSIGHTS

Future of Work and Learning

2020	Which Countries Were (And Weren't) Ready for Remote Work? - Harvard Business Review	Harvard Business Review
2021	Did Technology Enable Inclusive Education in Rural India in a Year of Lockdown? - ASER + Digital Planet Research	Annual Status of Education Report ASER 2020 Facilitated by PRATHAM
2022	Ukraine Invasion Will Disrupt Another Part of the Tech Sector: IT Workers - Bloomberg	Bloomberg
2022	As Ukraine's Economy Implodes, Companies Can Help by Sending Work - Foreign Policy	FP
2022	50 Global Hubs for Top AI Talent - Harvard Business Review	Harvard Business Review
2022	Imagining a Digital Economy for All in Ukraine	Digital Planet
2023	Beyond Access: Harnessing Digital Technologies for Education and Upskilling	Digital Planet








"As the world races to contain the spread of Covid-19, socially distant modes of working have become the norm. What that looks like, however, varies wildly."

"Every technological advance in the history of mankind has eventually led to easier and greater spread of knowledge."

"To ensure that AI is built and deployed in ways that are ethical, work for broad and diverse populations, and protect civil rights and freedoms demands that its development is not captive to the ethical judgments, design choices, and application priorities of a narrow population of developers."

IDEAS AND INSIGHTS

Responsible Business





2020	Social media companies are taking steps to tamp down coronavirus misinformation – but they can do more - The Conversation	
2020	Bhaskar Chakravorti writes to Sundar Pichai on Google's \$10 billion investment in India - The Indian Express	
2021	Facebook's Taliban Ban Will Prove Costly for Afghans - Foreign Policy	
2021	The saviour complex of Facebook's critics - The Indian Express	
2022	How to Fix Big Tech's Diversity Problem - Foreign Policy	
2022	Corporate Flight from Russia Is No Precedent for China - Foreign Policy	
2022	Why we should care about Elon Musk's Twitter takeover bid - The Indian Express	

"Whistleblowers and the Western media have exposed how the social media platform allows dangerous social media manipulation in developing countries. But why have they locked those very countries out of this conversation?"

"The message is clear: High priority recruiting locations can be mapped more easily using data and analytical power. That should make it easier for tech companies to fulfill their promise to diversify."

IDEAS AND INSIGHTS

Responsible Business

- 2022** Uber Files gives us a glimpse of Big Tech's playbook for market manipulation
- The Indian Express 
- 2022** Beyond Access: How Digital Technologies Power Inclusive Innovation in Smallholder Farming
Digital Planet 
- 2022** Elon Musk takeover: To the Twitter titans: Why kowtow to Chief Twit?
- The Indian Express 
- 2023** Beyond Access: Climate Resilience Case Studies (Coming Soon)
Digital Planet 





"It is time we reformed the education of future entrepreneurs and disruptors and the many stakeholders who enable them, to put the human cost of disruptive innovation front and center."

Inclusive businesses—whether they are large multinational corporations (MNCs), social enterprises, or impact investors—recognize that the private sector can play a lead role in solving problems and closing gaps to advance the objectives of global sustainability.

"The Twitterati should take a sabbatical from the platform until guarantees of good governance, decency and fairness are rebuilt."

IDEAS AND INSIGHTS








Closing the Digital Divide

- 2020** Global Digital Inclusion: Progress to Parity Scorecard 2020 
- 2020** How Digital Technology Can Accelerate Growth in 6 African Countries: Video Summar 
- 2020** The African Leapfrog Index: Getting Lions to Leapfrog 
- 2022** Global Digital Inclusion: Progress to Parity Scorecard 2022 

"We find that while there was a higher growth rate in internet usage around the globe in 2020, suggesting that the COVID-19 pandemic was indeed an accelerator for getting more people online, this progress was largely uneven. Through applying a parity lens, we find that across all three clusters, the pandemic failed to provide any boost, and much progress remains to be made such that first-level digital access and usage are equal across the three lenses of gender, urban-rural, and socioeconomic."

IDEAS AND INSIGHTS

Responsive and Inclusive Policymaking

- 2020** Exit from coronavirus lockdowns – lessons from 6 countries
-The Conversation 
- 2020** Which governments are best equipped to deliver public services online during a lockdown? 
- 2020** How Ready are Countries Around the World to Enter and Exit Lockdowns During COVID-19? 
- 2020** Social Distance Readiness Benchmark: Video Summary 
- 2020** Inclusive Crisis Management by Governments: Using Digital Ethnography and Sentiment Analysis as a Sensing Function and Policy Tool
- Equiception + Digital Planet Research 
- 2021** Unlocking Value through Virtualized Healthcare: Which Countries are Ready? 
- 2021** The Pegasus nightmare
- The Indian Express 

"The delivery of public services online requires two necessary conditions: the infrastructure — hardware and software — for governments to deliver public services digitally, and abundant availability of affordable internet access."

"The state of digitization of healthcare delivery globally is quite uneven, spotted with patches of excellence and falling well short in others. Digitally administered medicine is yet to reach corners of the world where its need is the greatest."

IDEAS AND INSIGHTS

Responsive and Inclusive Policymaking

2021	Policy-makers Must Regulate Big Tech's AI Dominance - Foreign Policy	FP
2021	Indian tech unicorns are gaining at China's expense -The Indian Express	SE
2021	Global Money Shifts to India as Xi Cracks Down on Tech - Foreign Policy	FP
2022	3 Tech Industry Trends to Watch in 2022 - Foreign Policy	FP
2022	To Play Poker With Putin, Don't Use Chips - Foreign Policy	FP
2022	DataGovHub Paradigm for a Comprehensive Approach to Data Governance - Digital Trade and Governance Hub + Digital Planet Research	DTH
2022	2022 in AI, in verse and prose - The Indian Express	SE


"Fringe players take on Big Tech, governments start regulating, and AI could finally prove its worth."

"Human beings have been collecting, producing, and governing various types of data for centuries. However, with the advent of the Internet and data analysis methods such as artificial intelligence, the volume, variety, and data transmission speed have increased dramatically, making the governance of this data more complex and important."

"This year had a fascinating mix of goodies. Now seek AI talent from across the world, not just from a few mega-clusters."


IDEAS AND INSIGHTS


Responsive and Inclusive Policymaking


2022 Digital Inclusion vs. Innovation Momentum: Is There a Tradeoff? And Must Economies Choose? 


"The key insight of this study is: once societies reach a critical mass of users in the digital economy, the factors of production and value creation tend to gravitate towards creating and capturing value from the attendant network effects of existing, oft adept and affluent users."

Spotlight on Africa

2019 The African Leapfrog Index: Getting Lions to Leapfrog 

2020 How Digital Technology Can Accelerate Growth in 6 African Countries: Video Summary 

2020 How Digital Technology Can Accelerate Growth in 6 African Countries: Video Summar 

2020 The African Leapfrog Index: Getting Lions to Leapfrog 

IDEAS AND INSIGHTS

Spotlight on Africa

- 2023** Advancing the Future of Work in Africa through Digital Transformation: The Role of Systems Orchestrators (Coming Soon) **Dalberg**
- 2023** AI for Good: Improving Outputs of Agriculture in Sub-Saharan Africa (Coming Soon) **Digital Planet**
- 2023** Pandemic Precarity: Digital Drivers and the Covid Shock in Kenya (Coming Soon) **Digital Planet**



INFLUENCE AND IMPACT

Future of Work and Learning

2020	Why India can't work from home - BBC	B B C
2022	WEBINAR: Where to Find Top AI Talent - Harvard Business Review	Harvard Business Review
2023	Imagining and Digital Economy for All: Leadership Series (Online Course)	Digital Planet

"India came last out of 42 countries in a recent study of remote-working readiness. Bhaskar Chakravorti, Dean of Global Business for The Fletcher School at Tufts University, explains what his research means for the 1.3 billion people living in India, and what the future holds for the second largest internet market in the world."

"As the demand for artificial intelligence (AI) grows, so does the demand for AI talent. To find diverse AI talent, companies will need to look outside the usual technology talent hubs, such as the San Francisco Bay Area."

INFLUENCE AND IMPACT

Closing the Digital Divide






2020	Almost Two Thirds of the World is Now Online - BBC	B B C
2022	India to launch digital rupee - BBC	B B C
2022	Inclusive Leadership: Closing the Digital Divide with Ajay Banga and Bhaskar Chakravorti - World Reimagined Podcast: Nasdaq	Nasdaq
2022	Pandemic Pushes Women Online - BBC	B B C

"A combination of our inherent desire for stories, narratives, and personalities and the media's need to continue to reinforce that, our notion of trust has been intimately tied, not just by the functions and companies but by the leaders themselves."

"Now a new global study into digital access in 90 countries shows that although women were disproportionately impacted by the Covid pandemic, it seems to have got more of them online in South East Asia and Africa."

INFLUENCE AND IMPACT

Responsive and Inclusive Policymaking

2020	Fake Facts Are Flying About Coronavirus. Now There's A Plan To Debunk Them - NPR	
2020	Global Economic Impact of Coronavirus - Bloomberg	Bloomberg
2020	Are Countries Ready to Exit COVID-19 Lockdowns? - Harvard Business Review	
2020	WEBINAR: A World Online: Which Countries are Ready for the Great Lockdown and Which are Ready to Ease Up?	
2021	WEBINAR: The Internet's Turn? When the Pandemic Planet Became a Digital Planet	
2021	Census Goes Digital in India - BBC	
2022	Invasion of Ukraine Could Create Tech Disruptions - Bloomberg	Bloomberg

"...we are living through the purest test imaginable of the internet — and are quickly discovering how able it is to recreate a facsimile of the economy-as-usual."

"In this accelerated digital future, we need to make sure that we have both inclusion and resilience."

"Census goes digital in India, but who will be excluded?"

INFLUENCE AND IMPACT

Responsive and Inclusive Policymaking

2022	WEBINAR: Researchers track spread of virus through social distancing - Bloomberg	Bloomberg
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2022	A Warning About Misinformation Ahead of the Midterms - Bloomberg	Bloomberg
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2022	The Digital Economy and the New Social Contract - IE University	CEPS
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Spotlight on Africa

2019	Research: How Technology Could Promote Growth in 6 African Countries - Harvard Business Review	Harvard Business Review
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2020	What does technology leapfrogging really mean for Africa? - CIO	CIO
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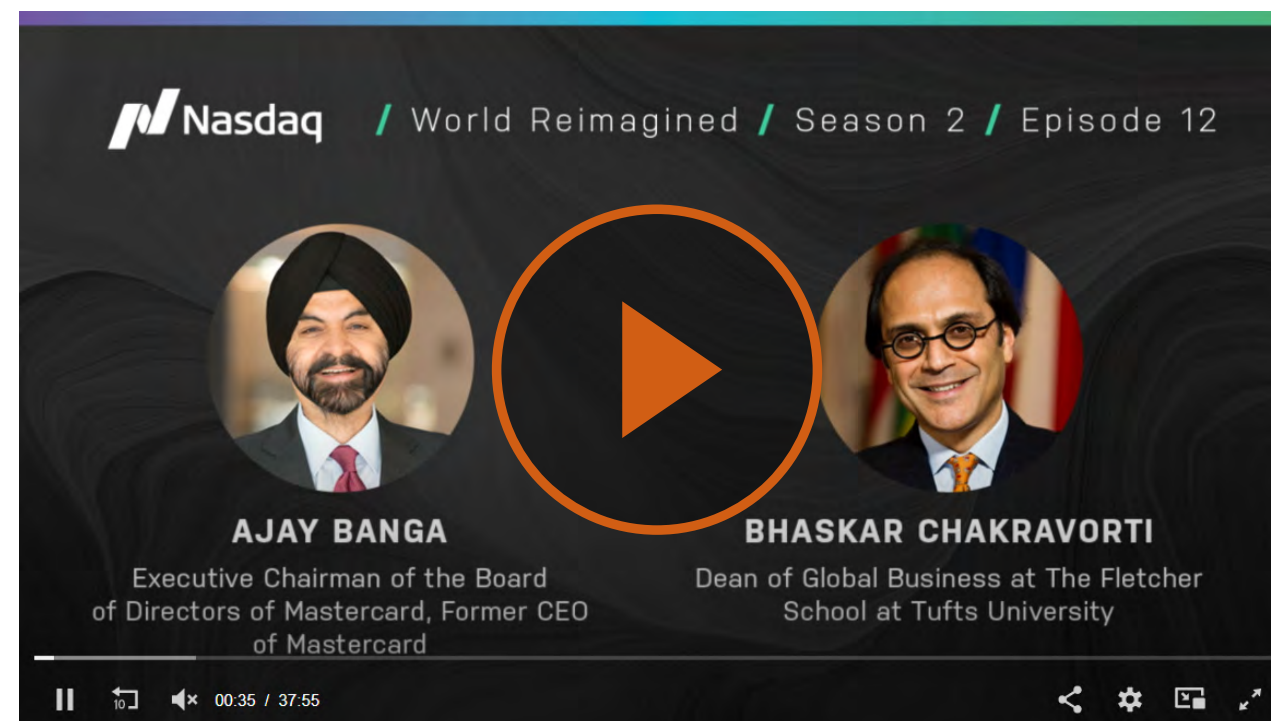
"In this accelerated digital future, we need to make sure that we have both inclusion and resilience."

"...how is the digital economy impacting social and power relations? Are technology and the digital economy the solutions to deep social problems? Is it possible to have a digital economy that combines innovation and inclusion, or is there an inevitable trade-off between them?"

BLUEPRINT FOR ACTION

To extract the most value from IDEA 2030 and maximize its impact, we applied two fundamental principles to our work: developing a learning mindset and collaboration. We mobilized a collaborative insights network of a scale and scope that is unusual among research institutions: with the Fletcher IDEA 2030 research team and the Mastercard Center team at the core, we assembled academic researchers, think tanks, data analytics and narrative science experts, digital learning specialists, prizewinning education experts, NGOs and impact evaluation teams, racial and broadband equity experts, advocacy organizations with interest in inclusive policies, impact investors, technology and data providers, design and production professionals, and widely-read media platforms. This coalition was critical to our innovative approaches to research and insight generation, amplification, and impact.

It was critical that our insights reach decision-makers and those in positions to put them to use. Through hosting and speaking at several public events, and authoring pieces featured in outlets like *Foreign Policy*, *Harvard Business Review*, *the Indian Express*, *Bloomberg*, and *the Washington Post*, we directly reached a global audience. Through tens of interviews in print, podcasts, and TV at outlets like the *BBC*, *NPR*, *Bloomberg*, and the *Nasdaq podcast*, we continued to spread the word on how to boost the multipliers of digital technologies and innovations.



We trained future digital inclusion leaders through our *Imagining a Digital Economy for All Leadership Series*. We briefed the European Commission and other thought leaders on the innovation vs. inclusion tradeoff. We advised governments on how real-time social analytics can provide a tool for inclusive policymaking and crisis management. We harnessed cutting-edge methodologies to take the pulse of online communities around the globe, highlighting the convergences and divergences of global communities on issues like disinformation.

We convened the IDEA2030 Council – a global network of researchers, social entrepreneurs, and consultants committed to an inclusive digital future for all. Dr. Rukmini Banerji, an IDEA 2030 council member and author of one of our partner reports on education in rural India during the pandemic, was awarded the Yidan Prize – the most prominent global education prize – for her work on Education Development.



2021 YIDYAN PRIZE FOR EDUCATION DEVELOPMENT LAUREATE

Dr. Rukmini Banerji
CEO, Pratham

Another council member, Dr. Susan Aaronson, the author of an IDEA 2030 report on data governance and a regular contributor to Barron's on data governance issues, continues to be covered widely across global outlets on the intersection of policymaking and emerging technologies.

For our Beyond Access: Inclusive Business case study series, we profiled nine companies across three themes: digital technology and smallholder farming, solutions for climate resilience, and digital education and upskilling. These case studies go beyond guiding policymakers in removing the

BLUEPRINT FOR ACTION

barriers to innovative, inclusion-minded startups; they provide a roadmap for budding entrepreneurs to learn from the journeys of other founders.

Wrapping up 2022, Bhaskar Chakravorti served as the keynote speaker at the Digital Trust Forum in Singapore, Ravi Shankar Chaturvedi serves as a member of the working group at the World Economic Forum’s Digital Trust Initiative, and Digital Planet continues to advise the Singaporean government on their ambition to become a hub for digital trust.

One of the more meaningful projects we embarked on was Imagining a Digital Economy for All in Ukraine – a series of conversations with tech industry leaders on how they are striving to maintain a semblance of business as usual in the midst of a war. Hearing from our Ukrainian friends that this project generated work for Ukrainian tech companies was welcome news.

As we move closer to 2030, we recognize there is plenty of work left to be done to achieve digital inclusion across the globe while celebrating the progress made. While we learned a great deal about how to boost the multipliers of digital technologies and close the digital divides, it was through our collaborations with our partners and friends that we have been able to achieve the most impact – the dividends of which we continue to see each day. We hope you’ll join us as we continue our journey toward imagining and realizing a digital economy for all in 2030.

