

Post-Pandemic Reflections: The Digital Economy

An assessment of emerging risks
and opportunities

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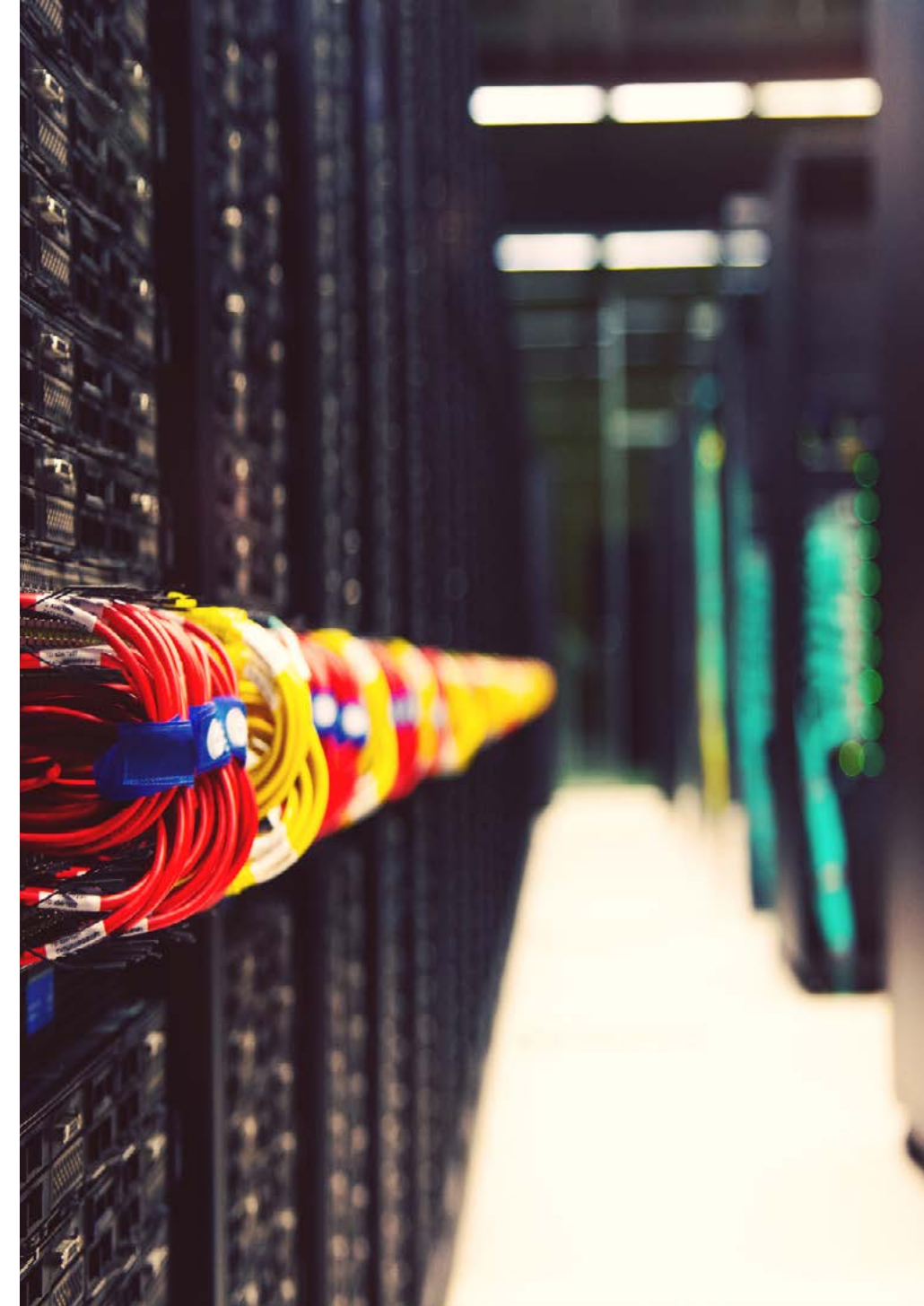


Digital dependence

The Covid-19 pandemic continues to impact people's lives, families, communities and the global economy and its evolution remains uncertain. One thing, however, has become clear: despite the SARS-driven preparedness of a few countries and many planning exercises, globally we were not prepared. Executive foresight and preventive action were lacking.¹

Lockdowns, border shutdowns and social distancing have made many appreciate how much reliance has been placed in recent years on the digital economy - digital payments, robotics, 3D printing, cybersecurity, e-commerce, the sharing economy, social media and cloud computing. If there is a common thread to the fallout from the dot-com crash, the aftermath to the 9/11 attacks and the 2008 global financial crisis, perhaps it's that each crisis seems to have fueled a further shift to the digital economy.²

- ¹ <https://a16z.com/2020/04/18/its-time-to-build/>
- ² <https://www.marketwatch.com/story/work-from-home-routines-speed-the-shift-to-cloud-computing-services-2020-03-24>



Digital Payments

The announcement of the closure of non-essential retailers around the world sparked a global surge in online shopping.³ As a result, many merchants became cashless. According to a survey in late March 2020 by Electronic Transactions Association (ETA), 27% of small businesses in the United States reported an increase in contactless payments made via smartphones and contactless cards.⁴ Digital transfer companies also benefited. For instance, Seattle-based Remyly, which helps people send money overseas, had customer growth up 100% from February to March, and registered a 40% growth in transaction volume.⁵ McKinsey and Company argues that payments systems are proving resilient and reliable, as they have in earlier crises.⁶

Despite these developments, there have been bleak announcements related to the prospects for consumer spending and income levels: Barclaycard data show that consumer spending fell 36.5% in April compared with the same month last year, following a 6% drop in March.⁷ Also, according to the World Bank, global remittances are projected to decline by about 20% in 2020 because of the economic crisis prompted by the pandemic.⁸



Robotics

“As epidemics escalate, the potential roles of robotics are becoming increasingly clear,” an international group of researchers wrote in the journal *Science Robotics* in March 2020.⁹ Robotics companies have reported that businesses across all sectors are re-assessing the value that robots and automation might bring in order to decrease the number of human contacts involved in production and supply chains, as well as to manage public health and infectious diseases.¹⁰ During the outbreak, robots have been taking on a greater share of the work: from monitoring stock levels, to helping with sanitizing in some grocery stores¹¹, using light beams to eliminate hospital viruses¹², and assisting with deliveries¹³. In this context, it is not surprising that robotics companies, such as AMP Robotics, have seen a marked increase in orders.¹⁴

3 <https://www.digitalcommerce360.com/article/coronavirus-impact-online-retail/>

4 <https://www.prnewswire.com/news-releases/small-business-owners-see-expanded-use-of-contactless-some-increases-in-sales-during-covid-19-301038612.html>

5 <https://www.geekwire.com/2020/seattle-startup-remily-sees-growth-covid-19-crisis-accelerates-shift-digital-remittances/>

6 <https://www.mckinsey.com/industries/financial-services/our-insights/how-payments-can-adjust-to-the-coronavirus-pandemic-and-help-the-world-adapt>

7 <https://www.ft.com/content/75476d15-051a-4e51-8e57-f15b1649cbf4>

8 <https://www.worldbank.org/en/news/press-release/2020/04/22/world-bank-predicts-sharpest-decline-of-remittances-in-recent-history>

9 <https://robotics.sciencemag.org/content/5/40/eabb5589>

10 Ibid; <https://sifted.eu/articles/robots-post-pandemic/>

11 <https://www.forbes.com/sites/lanabandoim/2020/04/14/grocery-retail-lessons-from-the-coronavirus-outbreak-for-the-robotic-future/#131aaf9715d1>

12 <https://www.bbc.co.uk/news/business-51914722>

13 <https://www.theguardian.com/uk-news/2020/apr/12/robots-deliver-food-milton-keynes-coronavirus-lockdown-starship-technologies>

14 <https://www.nytimes.com/2020/04/10/business/coronavirus-workplace-automation.html>

Cybersecurity

The Covid-19 outbreak has forced very many employees to work from home. Remote workers logging into their organization systems from individual devices at home, with insecure WiFi networks and limited knowledge of online tools, have given rise to cybersecurity threats.¹⁵ For instance, over 500,000 Zoom accounts have been sold for less than a penny each or even given away for free on the dark web and hacker forums.¹⁶ Also, SentinelOne, an endpoint security platform, noted a 433% rise in endpoint attacks from late February to mid-March 2020.¹⁷ This 'new normal' may continue to create more openings for cyber-attacks, business opportunities for service providers and material privacy risks to manage for increasing parts of the global economy.¹⁸

E-commerce

The pandemic forced many people to shop online in order to get what they need – some for the first time: by mid-March, compared with end-February, e-commerce was up 25%. Grocery spending now represents 8% of overall e-commerce, up from 6% three years ago, according to Adobe Analytics).¹⁹

¹⁵ <https://hackernoon.com/working-from-home-and-cybersecurity-in-the-time-of-the-coronavirus-4vc1322c?source=rss>

¹⁶ <https://www.bleepingcomputer.com/news/security/over-500-000-zoom-accounts-sold-on-hacker-forums-the-dark-web/>

¹⁷ <https://bigthink.com/technology-innovation/work-from-home-cybersecurity?rebellitem=8#rebellitem8>

¹⁸ The Data Abyss – Part 1 & 2, MSCI ESG Research, July 2018

¹⁹ <https://www.bloomberg.com/news/articles/2020-03-31/americans-adopting-e-commerce-faster-than-ever-amid-pandemic>

In April 2020, consumer spending on Amazon increased by 35%, compared with the same period the prior year.²⁰ In the long run, RBC Capital Markets predicts that Amazon's online grocery arm could produce \$70 billion in gross merchandise volume by 2023 - more than 3 times that in 2019.²¹ In the words of Sally Hubbard, a director at the Open Markets Institute, Amazon has "essentially become infrastructure".²²

Whilst consumers have been spending more online, they are, however, spending less in general.²³ According to the Blue Yonder March 2020 survey, 59% of respondents are purchasing less than they normally would "because they are avoiding going out in public and cannot purchase things in-person".²⁴ McKinsey and Company's April 2020 consumer-sentiment surveys show declines in purchase intent of 70% to 80% in offline and 30% to 40% in online in Europe and North America.²⁵ The surge of orders has also tested the limits of ecommerce companies like Amazon's distribution systems²⁶, including shipping delays and out of stock items.²⁷ Amazon also had to put new grocery delivery customers on a waitlist (to prioritize orders from existing customers buying food online during the outbreak).²⁸ Interestingly, retailers with temporarily closed physical stores are fighting back, and occasionally even beating, the e-commerce giants on shipping times.²⁹

Online buying may well remain as popular even when the immediate threats of the virus will have diminished as newly acquired users have enjoyed the benefits of convenience along with personal safety.³⁰ Similarly, we may see more companies following Starbucks' and Walgreens' "buy online, pickup in store" ("click and collect") strategy.³¹

²⁰ <https://www.vox.com/recode/2020/4/10/21215953/amazon-fresh-walmart-grocery-delivery-coronavirus-retail-store-closures>

²¹ <https://www.geekwire.com/2020/analyst-covid-19-crisis-sparks-inflection-point-online-grocery-huge-revenue-amazon/>

²² <https://www.axios.com/coronavirus-retail-survival-biggest-57470685-8e6a-4454-8149-94d5e2eb5cae.html>

²³ <https://www.businessinsider.com/online-order-delays-during-coronavirus-e-commerce-limits-2020-4>

²⁴ https://blog.blueyonder.com/covid-19-survey-consumer-trends-and-their-impact-on-retail-supply-chains/?utm_source=blog&utm_medium=facebook&utm_campaign=covid19

²⁵ <https://www.mckinsey.com/industries/retail/our-insights/fashions-digital-transformation-now-or-never>

²⁶ <https://www.nytimes.com/2020/04/05/technology/coronavirus-amazon-workers.html>

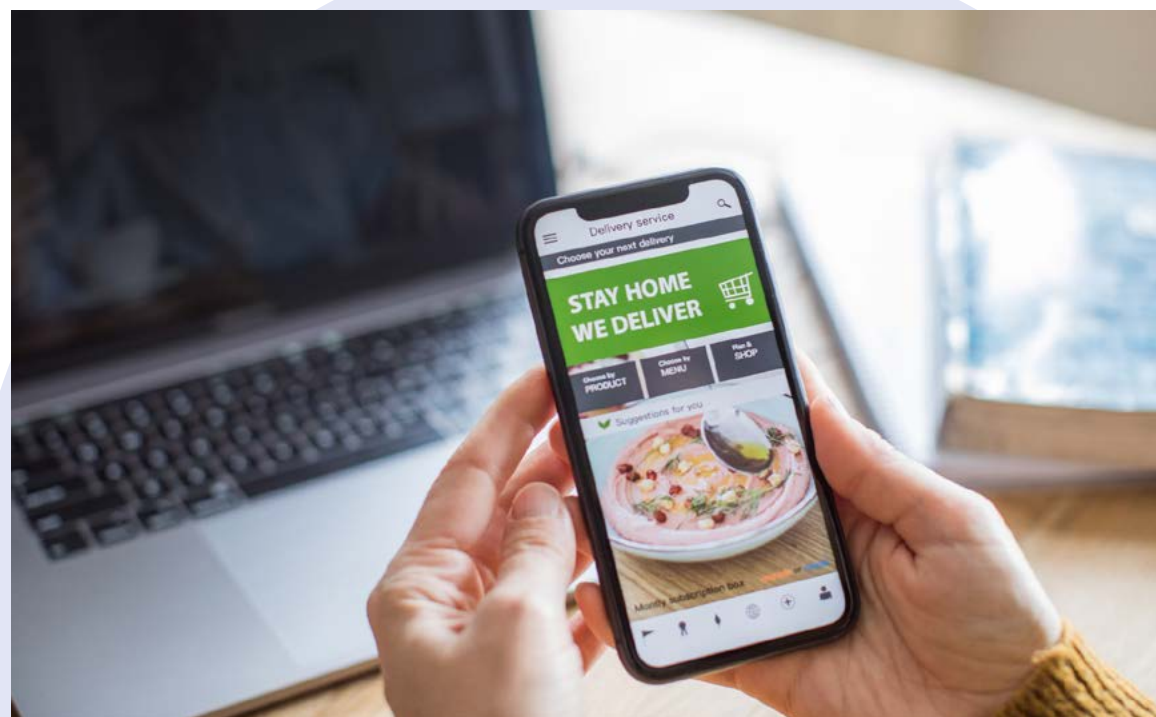
²⁷ <https://www.wsj.com/articles/shipping-delays-out-of-stock-items-amazon-isnt-the-only-shop-online-11586165400>

²⁸ <https://techcrunch.com/2020/04/13/amazon-puts-new-online-grocery-shoppers-on-a-waitlist/>

²⁹ <https://www.wsj.com/articles/shipping-delays-out-of-stock-items-amazon-isnt-the-only-shop-online-11586165400>

³⁰ <https://www.forbes.com/sites/sanfordstein/2020/03/28/after-the-pandemic-new-values-habits-and-a-retail-reset/#fb61b0b1341e>

³¹ <https://www.forbes.com/sites/christopherwalton/2020/04/01/the-domino-effect-5-ways-coronavirus-will-forever-change-retail/#694ebef266be>



Sharing Economy

Closed borders, travel bans and “stay at home” orders around the world had a dramatic impact on the sharing economy.³² Uber has seen its ride-hailing business fall considerably across the globe, while its Uber Eats segment has increased.³³ In response, Uber has launched a new Work Hub that enables its drivers to find alternative gig-economy work: in customer service, food production and in logistics.³⁴ Others have argued that sharing post-pandemic may not be as popular, triggering the onset of The Isolation Economy, where companies like Zoom, Peloton and Netflix are dominant.³⁵

Social Media

Influencer marketers are experiencing a spike in ad impressions and user engagement on sponsored posts on apps like TikTok and Instagram.³⁶ The influencer agency Obviously said it saw a 76% boost in the number of ‘likes’ on sponsored posts on Instagram in the first two weeks of March 2020 and a 27% increase in engagement on sponsored posts on TikTok, between February and March 2020.³⁷ Daily audio and video calls on WhatsApp and Messenger doubled as the virus spread, reaching levels usually reported only on New Year’s Eve.³⁸

However, there have been deep cuts in advertising budgets amid the pandemic and, as a result, the big players in digital advertising, such as Facebook and Google, may suffer from this pullback.³⁹ Cowen & Co. analysts estimate that Facebook and Google together could see more than \$44 billion in worldwide ad revenue evaporate in 2020.⁴⁰ Yet, in the longer term, eMarketer senior analyst Jasmine Enberg argues

32 <https://ftalphaville.ft.com/2020/02/27/1582814960000/COVID-19-Short-the-sharing-economy/>

33 <https://www.marketwatch.com/story/uber-admits-that-ride-hailing-is-worth-less-because-of-coronavirus-but-investors-still-think-uber-is-worth-more-2020-05-07>

34 <https://www.forbes.com/sites/simonchandler/2020/04/07/coronavirus-turns-uber-into-gig-platform-for-all-work/#59c7b81f1db>

35 <https://www.forbes.com/sites/kmehta/2020/03/23/welcome-to-the-isolation-economy-goodbye-sharing-economy/#139518ca8d88>;
<https://ftalphaville.ft.com/2020/02/27/1582814960000/COVID-19-Short-the-sharing-economy/>

36 <https://www.businessinsider.com/engagement-on-instagram-sponsored-posts-rises-as-coronavirus-spreads-2020-3>

37 <https://www.campaignlive.co.uk/article/coronavirus-sparks-huge-jump-social-media-use-study-finds/1677276>

38 <https://www.marketwatch.com/story/facebook-in-the-age-of-covid-19-users-are-online-but-will-advertisers-pay-to-get-to-them-2020-04-06>

39 <https://variety.com/2020/digital/news/facebook-google-ad-revenue-loss-coronavirus-1203544502/>

40 Ibid.

41 <https://www.marketwatch.com/story/facebook-in-the-age-of-covid-19-users-are-online-but-will-advertisers-pay-to-get-to-them-2020-04-06>

42 <https://www.businessinsider.com/engagement-on-instagram-sponsored-posts-rises-as-coronavirus-spreads-2020-3>



that Google and Facebook will be in a much better position than smaller media companies for advertising.⁴¹ Moreover, many artists are finding other ways to perform ‘live’ during lockdown, via platforms like Instagram and YouTube, while Google searches for Instagram Live have increased rapidly.⁴²

Cloud Computing

The pivot to working from home has accentuated the benefits of cloud-based services: within companies, for interacting with clients and prospects, and for delivering product and services. Moreover, cloud-based services help make adjustments to match computing needs easier.⁴³ At the same time, remote working has sufficiently increased demand from the data centers that support streaming and cloud computing, which boosted memory chip prices.⁴⁴ By the beginning of April, prices for DRAM memory chips increased by more than 3.5% since January, according to industry tracker DRAMeXchange.⁴⁵ Companies have also realized that capacity cannot be added immediately.⁴⁶

43 <https://www.nytimes.com/2020/03/23/technology/coronavirus-facebook-amazon-youtube.html>

44 <https://www.reuters.com/article/us-samsung-elec-results/samsung-first-quarter-beats-estimates-chips-likely-to-prop-up-virus-hit-second-quarter-idUSKBN21035T?feedType=RSS&feedName=technologyNews>

45 <https://www.reuters.com/article/us-samsung-elec-results/samsung-first-quarter-beats-estimates-chips-likely-to-prop-up-virus-hit-second-quarter-idUSKBN21035T?feedType=RSS&feedName=technologyNews>

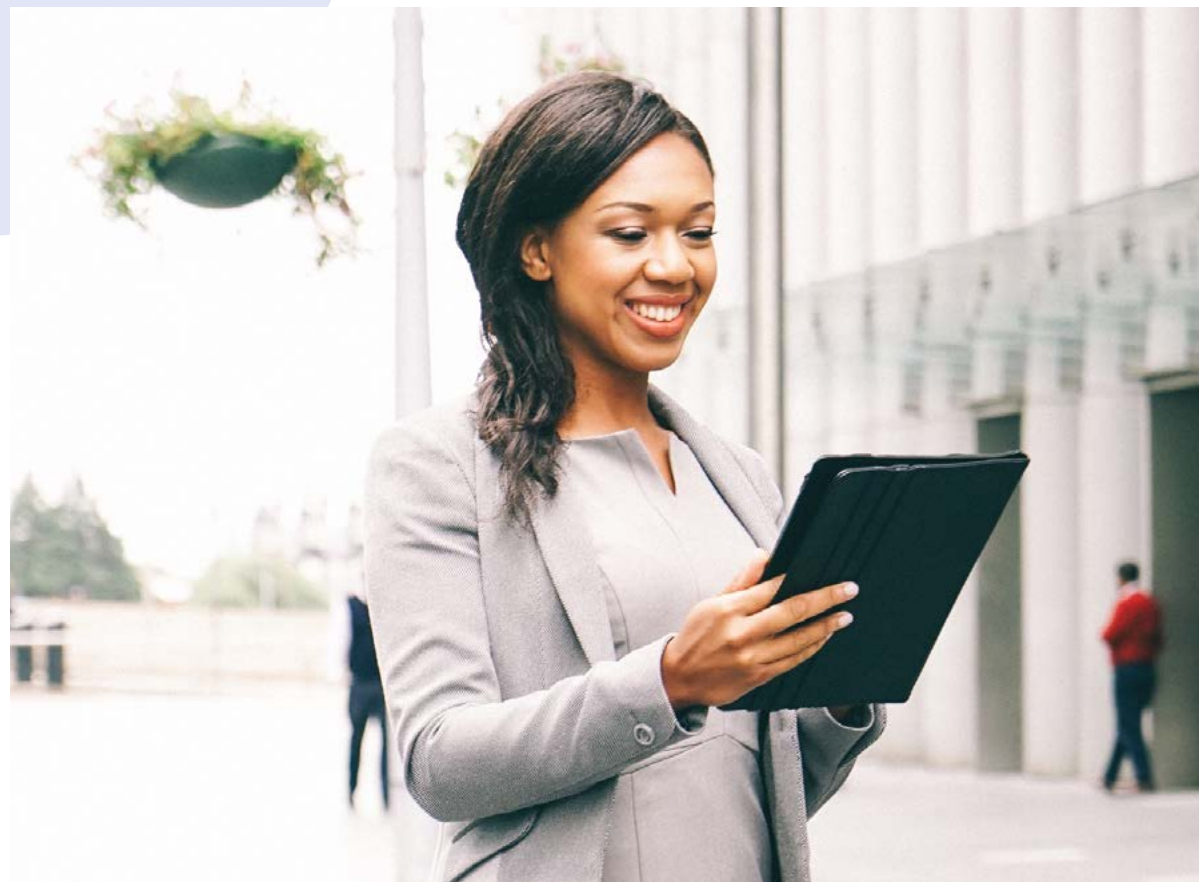
46 <https://www.marketwatch.com/story/work-from-home-routines-speed-the-shift-to-cloud-computing-services-2020-03-24>

In the long-run, remote working and dispersed offices may see sustained demand for cloud infrastructure⁴⁷, as people continue to use collaborative tools like Microsoft Teams, Atlassian, Zendesk and Adobe Document Cloud⁴⁸ and cloud-based video conferencing and distance training.⁴⁹

⁴⁷ <https://data-economy.com/microsoft-sees-12-million-new-users-on-teams-as-remote-workers-increase-during-covid-19-pandemic/>

⁴⁸ <https://www.marketwatch.com/story/work-from-home-routines-speed-the-shift-to-cloud-computing-services-2020-03-24>

⁴⁹ <https://www.weforum.org/agenda/2020/04/how-next-generation-information-technologies-tackled-covid-19-in-china/>



Conclusions

Looking across the analysis of the elements of the digital economy above, it seems that responsiveness, agility and an understanding of changing customer values seem to have been key to businesses best navigating the pandemic economy. While the current global focus is rightly on navigating this humanitarian and economic crisis, the balance of our analysis also points to an accelerating digital transformation of the global economy.

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His research focuses on organisational ambidexterity: how companies can excel at both incremental and radical innovation.



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