Technology Accelerated Innovation
Dynamic Briefing

Generated 25 September 2022 for Team Digoshen

Technology Accelerated Innovation

Last review on Sat 07 May 2022

About

This dynamic briefing draws on the collective intelligence of the Forum network to explore the key trends, interconnections and interdependencies between industry, regional and global issues. In the briefing, you will find a visual representation of this topic (Transformation Map – interactive version available online via intelligence.weforum.org), an overview and the key trends affecting it, along with summaries and links to the latest research and analysis on each of the trends. Briefings for countries also include the relevant data from the Forum's benchmarking indices. The content is continuously updated with the latest thinking of leaders and experts from across the Forum network, and with insights from Forum meetings, projects communities and activities.
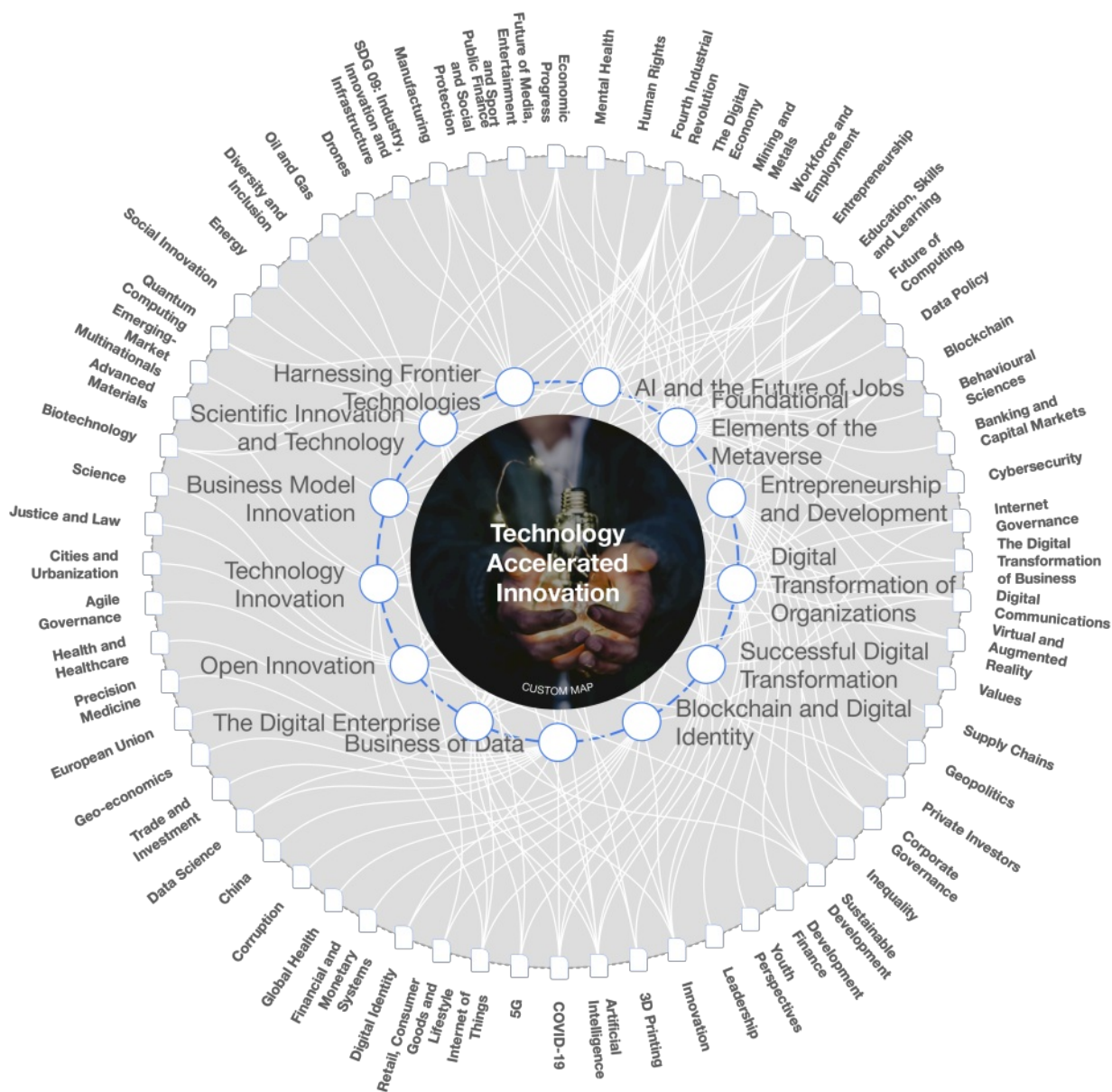
Executive summary

Technology Accelerated Innovation Intelligence Map - insights and perspectives on Technology and Innovation curated by Digoshen via World Economic Forum Strategic insights and contextual intelligence.

---

1. AI and the Future of Jobs

Preparing for a future without human work will require more than addressing basic financial needs.

2. Foundational Elements of the Metaverse

This virtual world will rely on real technologies and emerging behavioural patterns.

3. Entrepreneurship and Development

The SDGs frequently set the agenda for entrepreneurs aiming to make a positive contribution.

4. Digital Transformation of Organizations

The average lifespan for traditional companies is declining, while the revenue share for 'digital ecosystems' is expanding.

5. Successful Digital Transformation

Companies that double down on digital transformation may be better able to weather COVID-19.

6. Blockchain and Digital Identity

Current systems for identity management are siloed and inefficient, and call for new models.

7. Business of Data

Innovative approaches to data stewardship manage trade-offs while creating inclusive value.

8. The Digital Enterprise

Becoming 'digital at the core' can potentially create more sustainable value.

9. Open Innovation

Many talk about corporate venturing, relatively few know how to successfully implement it.

10. Technology Innovation

The promise of emerging technologies is matched by a need to manage related uncertainty.

11. Business Model Innovation

Developing new business models can rewrite the rules of an industry.

12. Scientific Innovation and Technology

Governments have a big role to play when it comes to adapting global innovation to local needs.

13. Harnessing Frontier Technologies

Companies are combining and mainstreaming frontier technologies to create new value.

AI and the Future of Jobs

Preparing for a future without human work will require more than addressing basic financial needs

Is artificial intelligence coming for your job? While some reports suggest nearly half of all jobs may be automated, other analyses note two important nuances. The first is that AI creates as well as replaces jobs. AI systems still need humans to develop them, handle nonroutine cases, provide a human touch, and monitor for failures. New technologies can also sometimes create entirely novel jobs - like social media influencer. A second nuance is that - at least for the foreseeable future - AI systems will only be able take over specific tasks rather than entire jobs. One report estimated what while 60% of all jobs have at least some tasks that could be automated, only 5% are under threat of full automation. And, as AI excels at routine tasks, it can free up humans for more interesting challenges. This augmentation-rather-than-automation approach offers the best opportunities for not only preserving employment but also ensuring effective and valuable AI. Actively involving workers in the development, adoption, and implementation of the technology can result in systems that are more practical, innovative, and effective.

Even with an augmentation approach, however, AI systems will result in potentially significant job disruptions - and call for a rethinking of education, employment, and policy systems. While technology skills would seem a worthwhile investment focus, there is also a need for general skills that can improve employment adaptability - such as critical thinking, and the skills that AI struggles with replicating such as creativity, human touch, and emotional intelligence. It is not certain whether human work will eventually disappear, but two features of the current situation are particularly troubling. The first is prevalent wealth inequality both within and between countries. If AI does lead to widespread job displacement, extreme inequality could lead to disastrous outcomes. The second is the central role that work plays as a source of personal worth and meaning in many societies. One popular proposed solution to a future without work is a universal basic income, where people receive regular payment regardless of employment. While such a program might address financial need, truly preparing for a future without work requires a deeper reinvention of human identity.

Related insight areas: Manufacturing, Public Finance and Social Protection, Future of Media, Entertainment and Sport, Economic Progress, Mental Health, Human Rights, Fourth Industrial Revolution, The Digital Economy, Mining and Metals, Workforce and Employment, Entrepreneurship, Education, Skills and Learning

Ecole Polytechnique Fédérale de Lausanne
Sprinting, swerving and weaving is a matter of agility
11 July 2022

11.07.22 - Summer series – Master's project. Soccer, tennis, skiing and many other sports involve changes of direction. For these athletes, performance hinges on speed and agility. Anything but running straight toward the goal! EPFL student Celestin Vallat has just completed his Master's project in mechanical engineering. As part of a collaborative research project with MotionLab, a Lausanne-based sports performance center, he monitored 25 professional soccer players at FC Lausanne-Sport to analyze how they performed when changing direction. The players had to complete a test consisting of five different exercises – sprinting, running backward, swerving to the right, swerving back to the left, and crouching down – all while touching cones along the way and all as quickly as possible.

Foundational Elements of the Metaverse

This virtual world will rely on real technologies and emerging behavioural patterns

Ultimately, there will be no metaverse without the chips and software required to power it. After Meta, the parent company of Facebook, announced plans in late 2021 to move aggressively into developing virtual reality and the metaverse, shares of chipmaker Nvidia hit record highs. Nvidia designs chips and graphics cards that generate high-resolution, 3-D images, as well as software that can be used to design virtual worlds. Other pieces of hardware required for participating in the metaverse include controllers that register hand and finger movements to interact in a virtual environment, and headsets. Some headsets currently available can cost thousands of dollars, though many are available for a few hundred dollars. According to an estimate published by eMarketer, the number of virtual-reality headsets in use globally should increase from 35 million in 2022 to 70 million by 2026. However, the company has also noted "pain points" for users that include the fact that headsets can be hot and uncomfortable, especially difficult to use for people who wear glasses, and suffer from poor battery life. Efforts are underway to develop alternatives to headsets for gaining metaverse access.

Other basic elements likely to feed into the early versions of the metaverse include the burgeoning use of cryptocurrencies. Just as the initial versions of the internet disrupted industries that rely on transferring information (like the news media), cryptocurrencies are disrupting industries that transfer value - like video games, or banking. The expansion of the metaverse will likely rely heavily on trading in such virtual currencies and assets, underpinned by blockchain technology. Other "metaverse activities" already proliferating, even as this next version of the internet remains theoretical, include shopping at virtual stores, watching films and TV shows, completing jobs for real money, and attending live concerts all within games. Roblox, a game platform first released in 2006, has players create avatars that can chat with others in the virtual world, earn virtual currency ("Robux"), or host parties. One Roblox executive said in a published interview that much of the platform's appeal is due to its emphasis on "unstructured play," at a time when many children are now more restricted when it comes to real-world activities than previous generations.

Related insight areas: Future of Computing, Mental Health, Data Policy, The Digital Economy, Blockchain, Behavioural Sciences, Future of Media, Entertainment and Sport, Banking and Capital Markets, Cybersecurity, Internet Governance, Fourth Industrial Revolution, The Digital Transformation of Business, Digital Communications, Virtual and Augmented Reality

London School of Economics and Political Science

Open Access and the enduring myths of the long 1990s

14 September 2022

From the dawn of the popular internet in the 1990s to the present day, Open Access (OA) to scholarly research has been a goal for many researchers and advocates. Drawing on research into the early OA discourse of the 1990s, Corina MacDonald argues that many of the original optimistic arguments in favour of open access … Continued.
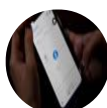
Project Syndicate

The End of Real Social Networks

07 September 2022

Social media platforms are not only creating echo chambers, propagating falsehoods, and facilitating the circulation of extremist ideas. Previous media innovations, dating back at least to the printing press, did that, too, but none of them shook the very foundations of human communication and social interaction.

Asia Global Institute

## The Metaverse in a Fragmented World

01 September 2022

What would the metaverse – an interconnected network of virtual spaces – look like in a geopolitically fragmented world? Andy Yee of the University College London Centre for Blockchain Technologies envisions a future of four metaverses – or more.

Cities Today

Early version of Seoul's metaverse revealed

01 September 2022

Seoul Metropolitan Government has released a beta version of its "virtual municipal world", Metaverse Seoul. Seoul was the first city to outline metaverse ambitions in November 2021 and is investing KRW 7 billion (US$5.2 million) this year. By 2026, the South Korean capital aims to have a metaverse environment for all administrative services, including economy, education, culture, and tourism. The pilot will gather feedback from users to improve the experience and catch bugs before the official release of the first service phase scheduled for the end of November. During the beta test period, selected users can access Metaverse Seoul using a personal avatar and experience what Seoul called "realistic virtual spaces" of Seoul City Hall and Seoul Plaza.
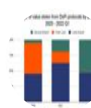
World Economic Forum

Crime in the metaverse is very real. But how do we police a world with no borders or bodies?

19 August 2022

25% of people are expected to spend at least an hour a day in the metaverse by 2026 — but this opens them up to a myriad of crimes. Children could be particularly vulnerable to crime, including theft of virtual assets or sexual and racial harassment. The nature of the metaverse means regulatory attention and a multi-stakeholder approach must be adopted now, as the technology rapidly advances. The concept of a metaverse is, in many ways, not new. Online, multi-player worlds like Second Life have been around for nearly 20 years.

Project Syndicate

Who Will Establish Metaverse Ethics?

17 August 2022

Many companies are angling to shape how virtual reality and digital identities will be used to organize more of our daily lives – from work and health care to shopping, gaming, and other forms of entertainment. The opportunities of the metaverse seem limitless, but in the absence of independent oversight, so do the risks.

Harvard Kennedy School – Journalist's Resource

Community land trusts: Research reveals benefits of an affordable housing model that could help ease the housing crisis

15 August 2022

Community land trust homeowners report better overall quality of life than renters, as measured by housing stability and other factors. The post Community land trusts: Research reveals benefits of an affordable housing model that could help ease the housing crisis appeared first on The Journalist's Resource .

Technology Accelerated Innovation Briefing, September 2022

Entrepreneurship and Development

The SDGs frequently set the agenda for entrepreneurs aiming to make a positive contribution

"Development" is often defined as balancing social prosperity, economic performance, and environmental resilience - for the benefit of both current and future generations. Entrepreneurship plays an important role in development, by creating and expanding access to new products, technologies, and services, often in concert with public initiatives. These efforts can have both positive and negative impacts on social behaviour, general well-being, employment, and the environment. This raises practical and policy questions about the merits of entrepreneurial activity beyond the accumulation of wealth - including about how it may benefit some communities more than others. On one hand, entrepreneurship generally creates jobs, drives economic growth and innovation, and contributes to better living standards. On the other, its benefits are often unevenly distributed, frequently lead to the overexploitation of natural resources, and can negatively impact vulnerable populations. Within the context of development there is therefore a need to reconsider some common assumptions about entrepreneurial activity, and focus on ways to make it work better (and more fairly) for society. At present, the agenda for entrepreneurs aiming to make a positive contribution to development is often set by the United Nations' Sustainable Development Goals (SDGs).

When entrepreneurial efforts coalesce around development challenges (particularly the most pernicious, persistent, complex, and widespread), the intent is often to expand access to goods and services, and to generate more sustainable and socially-inclusive innovation. Entrepreneurial networks and new ways of organizing are key, as single actors may not have the capacity necessary to address complex challenges on their own. The core questions are how value is best created and distributed, and how to create an enabling ecosystem where entrepreneurial activity on the part of companies, governments, and community groups can flourish. The success of entrepreneurial activity cannot be judged simply on the basis of shareholder value; instead, the value created for the most marginalized communities becomes key. Numerous entrepreneurial experiments in the context of development in recent decades have taught us how crucial the local cultural and political context is for both the process and outcomes - and many examples have illustrated the need for equal amounts of discipline and inspiration for future generations of entrepreneurs. The challenge now is to learn from these efforts, whether large-scale, state-subsidized capacity- and infrastructure building, or the work of civil society agencies at the village level.

Related insight areas: Values, Supply Chains, Geopolitics, Private Investors, Corporate Governance, Inequality, Economic Progress, Sustainable Development, Development Finance, Workforce and Employment, Youth Perspectives

World Economic Forum
What do start-ups expect from venture capital funds when it comes to ESG?
15 September 2022

Venture capital firms are a critical force in shaping the future of people, planet and society as they invest in leading start-ups. A new study by the World Economic Forum reveals the challenges and opportunities for start-ups wanting to build ESG strategies. Insights from the study reveal what start-ups expect from venture capital funds in relation to ESG. Venture capital (VC) plays a transformative role in society given the nature of the disruptive business models and companies VC funds invest in. Even though these funds take up minority stakes in companies, that typically gets diluted in subsequent rounds of funding.

Harvard Business School Working Knowledge
It's All in a Name: Reputable Investors Help Startups Shine
25 August 2022

Attracting high-quality talent is a challenge for any young firm. Shai Bernstein says startups get a reputation boost and draw more job applicants when they're backed by well-known venture capital investors.

Harvard Business School Working Knowledge
Now Is the Time for Entrepreneurs to Play Offense
16 August 2022

With the specter of recession looming, many worried founders and executives are aggressively shoring up cash. But shrewd entrepreneurs are using these six tactics instead to gain advantage, says Jeffrey Bussgang.

World Economic Forum
In the era of the global start-up, countries must step up their game to attract FDI
19 July 2022

Entrepreneurship is a key driver of foreign investment and growth in countries all over the world. An increasingly competitive and globalized entrepreneur economy means competition is stronger than ever for foreign investment. To account for this, states should establish dedicated investment promotion agencies (IPAs) that know the ins and outs of their country's start-up scene. Throughout history, entrepreneurship has been a consistent driver of economic growth. Whatever the country, whatever the culture, this holds true.

Digital Transformation of Organizations

The average lifespan for traditional companies is declining, while the revenue share for 'digital ecosystems' is expanding

The Fourth Industrial Revolution has reshaped entire industries - as sources of value shift across value chains and accelerate the need for greater agility, adaptability, and transformation. According to McKinsey & Company, an emerging set of "digital ecosystems" modelled after firms like Facebook and Airbnb could account for more than $60 trillion in revenue by 2025, or more than 30% of all global corporate revenue. Traditional organizations need to quickly reimagine ways to create and capture new business value in the face of this digital disruption. The average tenure of a company in the S&P 500 Index of large, US-traded firms is expected to decline from 24 years in 2016 to 12 years by 2027, as corporate leaders deal with an unprecedented combination of disruptive technologies, changing customer behaviour, and an impending climate crisis. However, disruptive technologies are also creating significant new value opportunities. Advanced 5G telecom networks are expected to generate more than $600 billion in new business by 2026, for example, while the market for distributed "edge" computing is expected to more than triple between 2019 and 2024, to $9 billion.

People increasingly expect technology to be personalized, convenient, and on-demand; and, according to the research firm Nielsen, nearly half of all consumers are now more likely to try new brands than they were five years ago. These people also expect companies to play a constructive role in society. According to a study published by Accenture, 62% of consumers say their purchasing consideration is driven by a company's ethical values and authenticity, and 74% want more transparency on companies' stances on environmental and social issues, and on how they source their products and ensure safe working conditions. In response, many business leaders have transformed their organizations to create new value. While nearly 96% of organizations are in some phase of transformation, according to research firm IDG, and 90% of enterprises have already adopted a "digital-first" business strategy, the results have so far been mixed; less than half of executives now believe they can extract and maintain the planned value from their transformation initiatives. Companies of all types now have a shared opportunity to exchange information and co-create new frameworks, tools, and partnerships to successfully transition to a new business normal.

Priorities for collaboration:

-Accelerate successful business transformation to respond to technological and social disruption.

-Identify collective learnings and strengthen collaboration across industries.

-Co-create new insights, models, decision frameworks, and tools.

Related insight areas: The Digital Transformation of Business, Corporate Governance, Entrepreneurship, Economic Progress, Leadership, Fourth Industrial Revolution, Innovation, Blockchain, 3D Printing, Virtual and Augmented Reality, Artificial Intelligence

Technology Accelerated Innovation Briefing, September 2022

Cities Today
Where next for New York's Internet Master Plan?
21 September 2022

New York's Mayor Eric Adams and Chief Technology Officer Matthew Fraser this week launched what they called a "landmark digital equity programme". Big Apple Connect will make free high-speed internet and basic cable TV available to 300,000 residents in over 200 New York City Housing Authority (NYCHA) developments by the end of 2023.

Cities Today
Digital divide efforts focus on care leavers
07 September 2022

Following a pilot project, Greater Manchester Combined Authority (GMCA) is rolling out a programme to provide care leavers with free data connectivity for 12 months, as well as devices and training. GMCA, which is made up of the ten Greater Manchester councils, estimates there are 4,200 care leavers up to the age of 25 across the region and that all are digitally excluded in some way. The programme aims to address some of the issues faced by young people leaving the care system, including often having less disposable income to afford basic essentials such as digital devices and connectivity. A statement from GMCA said: "A lack of digital access and skills can have a huge negative impact on a person's life, leading to increased loneliness and social isolation, less access to jobs and education, which both in turn are associated with poorer health outcomes and a lower life expectancy and financial exclusion." Pilot results.

Cities Today
Belfast to launch 'Citizen Office of Digital Innovation'
23 August 2022

The City of Belfast in Northern Ireland has launched a tender to develop and pilot a Citizen Office of Digital Innovation (CODI) – a capacity-building programme to boost resident engagement around data and technology.

LSE Business Review
Digital platforms inhibit innovation to address today's most pressing issues
23 August 2022

The large research and development expenditures of the leading digital platforms (Alphabet-Google, Apple, Meta-Facebook, Amazon, and Microsoft) may send an image of beneficial investment and innovation, but the reality is that they suppress healthy innovators by depriving them of the "oxygen" needed to survive. Ariel Ezrachi and Maurice E. Stucke write that we should not be betting on … Continued.

Asian Development Bank
Fintech and COVID-19: Impacts, Challenges, and Policy Priorities for Asia
27 July 2022

Fintech and COVID-19: Impacts, Challenges, and Policy Priorities for Asia describes how the COVID-19 pandemic has accelerated digital technology adoption in the financial sector and the role of financial technology (fintech) firms in supporting households and businesses during the crisis. The book also highlights critical structural policy changes needed to ensure an efficient and safe fintech environment that minimizes risks to consumers and financial stability. Part I focuses on the impact of fintech on consumers, businesses, and the macroeconomy during the pandemic. Part II discusses the post-pandemic policy implications for enhancing fintech's effect on inclusive growth.

Successful Digital Transformation

Companies that double down on digital transformation may be better able to weather COVID-19

According to the results of a survey published by SAP, while nearly all corporate leaders think digital technologies will drastically disrupt their industry, just 44% believe they are prepared for that disruption. Soon, just about every company will need to think like a technology company - or risk extinction. Many companies struggle to realize a return on their investment in digital transformation. Companies collectively spent an estimated $1.2 trillion on transformation efforts in 2019, according to IDC, yet research published by MIT found that only 13% of business leaders believe their organizations are truly equipped to compete in the digital age. Evidence suggests that the most successful efforts do not approach transformation simply as a way to experiment or cut costs, but rather as a fundamental tool to create new value. Artificial intelligence, 5G, and autonomous vehicles have all amplified opportunities to create value; an estimated 80% of all emerging technologies will have foundations in AI by 2021, while the number of 5G connections in the world is expected to triple by 2023, and more than half of all passenger vehicles will be electric by 2040.

As the financial and business impact of COVID-19 spreads, companies that double down on responsible digital transformation efforts may be better able to thrive. However, strong leadership will be required. Fostering cultural changes and a "digital at the core" mindset will be necessary, as will crowdsourcing and co-creating and piloting new ideas and business models among different teams. Large companies that are not digital natives often find it difficult to replace legacy structures and processes with digital-first approaches. At all of these companies, leaders need to be equipped with digital skills to keep pace with technology advancements, and to make timely decisions. However, according to the results of a survey published by the MIT Sloan School of Management, only 9% of executives strongly believed their leaders had the right skills to thrive in a digital economy. The need for digital skills at all levels applies to even the most traditional of businesses; the European Central Bank, for example, has recommended that banks need to adopt new and diverse skills and experience when it comes to technology and digital innovation - especially at the board level.

Related insight areas: Artificial Intelligence, Entrepreneurship, The Digital Economy, COVID-19, Fourth Industrial Revolution, Sustainable Development, 5G, Digital Communications, Internet of Things, Innovation, Workforce and Employment

World Economic Forum
How digital transformation is driving action in healthcare
09 September 2022

Digital transformation in healthcare is growing rapidly year-on-year. Health information systems are designed to manage healthcare data. CHISU project is helping countries in their digital transformation journey. Digital transformation has been a hot topic in the healthcare industry in recent years. Spending on digital transformation surpassed $1.3 trillion worldwide and it is growing at a whopping 10.4% year on year.

Cities Today
Syracuse to pilot municipal broadband with ARPA funds
06 September 2022

Syracuse, NY is requesting proposals for the design, implementation and maintenance of a municipal broadband network. The pilot programme, which will be paid for through American Rescue Plan Act (ARPA) funding, aims to help bridge the digital divide by providing affordable internet for low-income residents, while also supporting smart city applications. Syracuse has a poverty rate of over 31 percent. Over a quarter of households lack internet access and nearly 45 percent lack access to internet speeds needed to support multiple users. "We are a city that struggles with generational poverty," Jennifer Tifft, Director of Strategic Initiatives for the City of Syracuse, told Cities Today .

RAND Corporation
Broadband Communications Prioritization and Interoperability Guidance for Law Enforcement
15 August 2022

In this report, RAND researchers present practical knowledge to inform law enforcement agencies about available broadband options and opportunities, governance issues, funding options, costs, and barriers to implementation.

Blockchain and Digital Identity

Current systems for identity management are siloed and inefficient, and call for new models

About one billion people around the world remain without the official proof of identity often crucial for receiving services and benefits - and those with official proof often have little-to-no control over how it is being managed. The concept of digital identity has therefore become increasingly important for many governments and institutions, given the ways it can potentially help knock down barriers when it comes to everything from property ownership, to political participation, to receiving fair access medical care and services. The COVID-19 pandemic has only brought issues related to identity management further into focus - as pandemic relief and stimulus payments, medical records, and address information all generally reside in separate systems with no means of interoperating. Many governments are therefore now exploring the use of blockchain technology to enable more seamless and secure systems for identity management. Some countries, such as Estonia, had already become leaders in the use of blockchain-based digital identity; an estimated 98% of Estonian residents have a national ID-card that functions as a travel ID, health insurance card, proof of identification for banking, and more.

In Canada, blockchain technology has been used to credential over 500,000 businesses through its "Verifiable Organizations Network." In any country, adequate oversight and management are central to the use of blockchain - not least because unique and consistent identifiers are prerequisites for decentralized services. For example, blockchain-based currency transactions are routed via public addresses that represent a transacting entity, and signed off on via a unique private key (a cryptography tool used to encrypt and decrypt code). However, the anonymity this enables may come into conflict with regulations related to identification that are designed to minimize illicit transfers of funds. As a result, blockchain-based digital identity systems still face considerable technological, managerial, and regulatory issues. In addition to the scalability considerations first required in order to support billions of individual users, data integrity will be critical - especially given the potential for administrators to interact with a large volume of relatively unsecure, "off-chain" data. Regulatory models will likely need to adapt, in order to accommodate new models of identity and prevent adverse related consequences such as social exclusion or widening digital divides.

Related insight areas: Innovation, Retail, Consumer Goods and Lifestyle, Digital Identity, Financial and Monetary Systems, Future of Computing, COVID-19, Global Health, Corruption, Fourth Industrial Revolution, Internet Governance, The Digital Economy

INSEAD Knowledge

NFTs as a Force for Good: The Case of the Savvy Salamanders

07 September 2022

People have long sought out rare physical objects, such as paintings, trading cards and memorabilia. Recent innovations in blockchain technology have made it possible for people to exclusively own and trade unique tokens that represent ownership of digital assets like images and text files, known as non-fungible tokens or NFTs. While NFTs have been around for a while, they were not well understood until they exploded into the mainstream last year, when a digital artwork was sold at Christie's auction house for US$69.3 million. By the end of 2021, US$40.9 billion had been spent on NFTs. In comparison, the global art market was worth US$50.1 billion. NFTs now extend far beyond the art world and can give holders ownership of music, real estate and videos or access to events or members-only clubs.

Duke Fuqua School of Business

Unraveling How Cybercriminals Extort Businesses Worldwide

30 August 2022

Over the years, Fuqua School of Business finance professor Campbell Harvey has published hundreds of papers and testified before government committees about a wide range of economic issues. Until a recent paper on cybercrimes, he never felt his work might put him in peril. The paper, " An Anatomy of Crypto-Enabled Cybercrimes ," takes a detailed look at how highly sophisticated criminal organizations, mainly based in Russia and North Korea, extort money from corporations worldwide. The majority of these victimized firms are in the United States. "This was actually a difficult decision to do this paper because there's a substantial probability that I will be targeted," Harvey said.

Asia Global Institute

The Crypto Blow-Up: The End – or a New Beginning?

25 August 2022

Are cryptocurrencies done? Malcolm Wright of InnoFi Advisory argues that the crypto crash of the first half of 2022 had more to do with macroeconomic factors and market moves – and failures – by key players. These developments, he predicts, are sure to lead to greater regulation and more innovation in the industry.

Pew Research Center

46% of Americans who have invested in cryptocurrency say it's done worse than expected

23 August 2022

The turmoil in cryptocurrency markets has taken a toll on investments. Among the 16% of U.S. adults who say they have ever invested in, traded or used a cryptocurrency such as bitcoin or ether, 46% report their investments have done worse than they expected, according to a new Pew Research Center survey. By comparison, 15% of these Americans say their investments have done better than they expected, 31% say they have worked out about the same as they expected and another 8% say they are not sure. The survey, which was conducted July 5-17, 2022, shows that the overall share of U.S. adults who have ever invested in, traded or used a cryptocurrency (also referred to as "crypto users" in this analysis) is unchanged since September 2021 . This lack of overall change comes despite strong attention to crypto in the news .

SpringerOpen

Speculative bubbles and herding in cryptocurrencies

22 August 2022

This study investigates speculative bubbles in the cryptocurrency market and factors affecting bubbles during the COVID-19 pandemic. Our results indicate that each cryptocurrency covered in the study presented bubbles. Moreover, we found that explosive behavior in one currency leads to explosivity in other cryptocurrencies. During the pandemic, herd behavior was evident among investors; however, this diminishes during bubbles, indicating that bubbles are not explained by herd behavior. Regarding cryptocurrency and market-specific factors, we found that Google Trends and volume are positively associated with predicting speculative bubbles in time-series and panel probit regressions. Hence, investors should exercise caution when investing in cryptocurrencies and follow both crypto currency and market-related factors to estimate bubbles.

Harvard Kennedy School - Belfer Center for Science and International Affairs

Bruce Schneier on the Crypto/Blockchain Disaster

12 August 2022

It's a bad year for the reputation of cryptocurrency. The foundation of cryptocurrencies, blockchain, has not faired much better. The IBM Blockchain page promises to deliver trust, security, and cost savings, there are few examples where any of that is true. That assessment might be generous. It's not safe, it's not reliable, it's not trustworthy, it's not even decentralized, it's not anonymous, it's helping destroy the planet.

Business of Data

Innovative approaches to data stewardship manage trade-offs while creating inclusive value

Increasing digital connectivity has led to unprecedented volumes of online data. According to IDC, the "global datasphere" will grow from 33 zettabytes in 2018 to 175 zettabytes by 2025 - when three-quarters of the world's population will interact with data every day, nearly half of all data will be available to the public via the cloud, and nearly a third of it will be provided in real-time to aid decision making. Companies and governments are increasingly using data to try to add value by delivering personalized healthcare, or by building smarter cities and public services. Data has been a particularly useful public health tool during the COVID-19 crisis; at least 25 countries have introduced contact-tracing applications meant to curb its spread. As data increasingly becomes a source of economic value, there is mounting pressure to share and use it in ways that benefit everyone. This means respecting personal freedoms like privacy and security, and actively preventing the use of data to perpetrate human rights abuses or to discriminate. Governments have introduced rules to enforce responsible data use, such as the European Union's General Data Protection Regulation - which aims to give internet users more control over their personal data.

With most data-driven innovation and services coming out of the private sector, businesses play an increasingly important role in demonstrating responsible data stewardship. New mechanisms - including business models, technologies, and practices - are being developed in isolated pockets across various industries. Business leadership is essential for unlocking data's transformative value in a way that builds trust and relieves pressure on policy-makers to intensively regulate industries. Efforts such as the Sovrin ledger, designed as a public repository for digital identities, and Massachusetts Institute of Technology's Solid project strive to embed new internet principles, rules, and protocols that give people more control over their personal data online. Meanwhile innovative legal and collaborative structures are being tested to streamline data sharing, such as data-trade marketplaces. Data is critical for national security and a nation's competitiveness; while data flows across borders are necessary for global trade, governments are increasingly trying to reduce their dependence on foreign firms by asserting data sovereignty. Examples of this include China's data localization rules, and the GAIA-X data sovereignty effort spearheaded in Europe by Germany and France. The harmonization and coordination of governments' policy frameworks will be key for balancing national goals with the benefits of international innovation.

Priorities for collaboration:

-Identify and promote technology and policy innovation in trusted data sharing and use.

-Mobilize business stewardship and leadership on data.

-Coordinate global cooperation on cross-border data flows.

Related insight areas: China, Digital Identity, Data Science, Trade and Investment, COVID-19, Public Finance and Social Protection, Geo-economics, European Union, Human Rights, Precision Medicine, Health and Healthcare

RAND Corporation
Improving the Department of the Army's Marketing for Recruitment, Hiring, and Retention of Civilians in Critical Occupations
11 August 2022

This report presents the results of analyses intended to help the Army assess and strengthen its ability to attract high-quality applicants to its civilian workforce and to retain high-quality Army civilian employees.

South African Institute of International Affairs (SAIIA)
African Participation in WTO E-Commerce Negotiations: Policy Positions and Development Issues
15 July 2022

Image: Getty, Jonathan Torgovnik In comparison with other regions, such as Asia and Europe, Africa's participation in the digital economy is relatively limited. Summary: The joint statement initiatives (JSIs) were launched as a negotiating tool at the 11th WTO Ministerial Conference (MC11) in Buenos Aires by a sub-group of WTO members. This group represents over 90% of global trade and all major geographical regions and levels of development. However, some regions continue to be significantly underrepresented, such as Africa, the Caribbean and Pacific Island (ACP) countries, with the latter two regions having no representation at all.

The Digital Enterprise

Becoming 'digital at the core' can potentially create more sustainable value

Millennials and Gen Z account for nearly half the global workforce, and are updating expectations for employers everywhere. Remote working is important to many millennials (who are now as old as 40), for example, and COVID-19's social distancing requirements have accelerated what had been a gradual shift to both more remote working, and more digitally-enabled customer experiences. Companies will need to be able to accommodate this with digital solutions that maintain engagement, health, and well-being. In addition, as workforces become more distributed, and connected devices and data networks are increasingly used, ensuring security will become more challenging - necessitating the management of more significant vulnerabilities. Companies will generally need to be open and flexible, to proactively plan for cybersecurity risks, and to be willing to take responsibility for helping employees acquire new and necessary digital skills. Other reasons for aggressively pursuing a digital transformation predate the pandemic; according to the MIT Initiative on the Digital Economy, the "digerati," or firms that excel both in digital intensity and transformation management capabilities, have been shown to be 26% more profitable than their peers.

In response, an estimated 87% of CEOs expect to see a change in their operating models within three years, according to research cited by Deloitte in 2019. Technology and data can help support demand forecasting, inventory stocking, tracking, and delivery. Amazon, for example, has used a shipping model meant to predict buying behaviour in order to have products on hand locally before they are ordered. As COVID-19 disrupted supply chains with lockdowns and border closures, many organizations looked for ways to bolster resilience and transparency, and many manufacturers turned to selling products through channels like Amazon. Increasingly, companies everywhere will make greater use of technologies such as blockchain, cloud computing, artificial intelligence, and robotics as part of efforts to build resilience - and Unilever and United Kingdom-based supermarket chain Sainsbury's have already sought to use blockchain to increase the sustainability and transparency of their supply chains. While the pandemic has led to revenue losses in many industries, investing in digital solutions can be one means to help better manage costs during a difficult time.

Related insight areas: The Digital Economy, Cybersecurity, Workforce and Employment, 5G, Artificial Intelligence, COVID-19, Sustainable Development, Innovation, Fourth Industrial Revolution, Blockchain, Education, Skills and Learning, Entrepreneurship, Internet of Things, Digital Communications, Data Science

Technology Accelerated Innovation Briefing, September 2022

World Economic Forum

Five key trends shaping the new world of work

09 September 2022

There is transformation happening in the world of work, both as a result of the pandemic, and underlying structural shifts. Companies are restructuring for efficiency, and recruiting for skills rather than potential, while talent is highly mobile. Digital skills are increasingly central to workers' employability. From the phenomenon of " quiet quitting " to the great resignation , the post-pandemic reluctance of workers to return for the office has been well documented . Many of the trends we are currently seeing in the world of work predate the covid-19 pandemic.

World Economic Forum

Meet the leader who's committed to transforming the European tech ecosystem

02 September 2022

Mark Boris Andrijanič is a Slovenian civil society leader and politician committed to transforming the European tech ecosystem. During Andrijanič's term as Slovenia's first-ever Minister of Digital Transformation, the country climbed three places on the European Digital Index (DESI). He recently received the Ukraine Peace Prize from President Volodymyr Zelenskyy for his efforts to strengthen Ukraine's digital resilience. Mark Boris Andrijanič is a proudly Slovenian civil society leader with a passion for technology and belief in the power of human-centric digital transformation. His career has taken him from his hometown of Ljubljana, Slovenia, to Oxford, Washington D.C., Brussels, Warsaw and Sierra Leone.

Open Innovation

Many talk about corporate venturing, relatively few know how to successfully implement it

Established companies innovating together with startups, often called "corporate venturing" or "CV," is a fast-growing phenomenon that takes many forms. These include corporate venture capital, corporate accelerators, venture clients, venture builders, and joint proofs of concept, to name a few. Since 2016, corporate venture capital investment has increased four-fold globally; this is a part of open innovation, a growing paradigm that assumes firms can and should use external ideas and paths to market as they look to advance their technology. These external inputs may come from startups, governments, universities, venture capital investors, or accelerator programs. The South Korean multinational Samsung, for example, gained a foothold in next-generation quantum computers by directly investing in the startup IonQ, which later went public, and German athletic apparel company Adidas partnered with the California-based startup Carbon to develop a 3D-printed shoe. On average, nearly 69% of corporate-startup innovations fail, however, according to a report published in MIT Sloan Management Review. So, what is the remaining roughly 31% doing differently? What is the right structure, degree of autonomy, and sources of deal-flow for the teams running corporate venturing and startups, for example?

Some popular myths include the notion that corporate venturing is only for large corporations (many small- and medium-sized enterprises are pursuing it), and that it is just corporate venture capital (it encompasses other mechanisms such as the "venture client," where the corporation is the first client of the startup). Some also mistakenly think CV is just about intuition; abundant data are available to drive it forward strategically. Looking ahead, there are two predominant trends. The first is a growing number of corporations innovating with deep-tech startups, or those with emerging technologies based on scientific discoveries and offering a substantial advance over established technologies (illustrated by the expansion of the American chipmaker Intel's deep-tech startup accelerator Ignite). The second is a growing number of corporations forming small groups to innovate with startups - so called "CV squads" - to share costs, anticipate opportunities, and strengthen value propositions. The carmaker Volvo, for example, did this by teaming up with telecommunications firm Ericsson and others. To capture the true value of corporate venturing, in terms of fielding innovative new products and services, chief innovation officers should make a point of reviewing their existing CV strategies.

Related insight areas: Private Investors, Agile Governance, Cities and Urbanization, Fourth Industrial Revolution, Entrepreneurship, Education, Skills and Learning, Sustainable Development, Justice and Law, Science, Internet Governance

World Economic Forum

Hybrid entrepreneurship - 5 reasons to build a venture while still working

07 September 2022

Some of the world's most successful entrepreneurs launched their businesses without leaving their day jobs. Hybrid entrepreneurship hedges the risk of a startup failure and leaves entrepreneurs with steady jobs to fall back on. Learn about the five freedoms that come with building a venture while employed and why you should consider doing this. What do Steve Wozniak, Henry Ford and Sarah Blakely have in common? They built some of the most successful businesses of all time – Apple, Ford and Spanx – all while working a 9-5 job.

London School of Economics and Political Science

Doing research as if participants mattered

11 July 2022

Almost all qualitative and quantitative research into human society involves the participation of other humans. However, they are frequently rendered passively in research outputs as 'research subjects'. In this post, Helen Kara, argues that the way we define participants in research is outdated and presents three ways in which research participants can be made more … Continued.

Technology Innovation

The promise of emerging technologies is matched by a need to manage related uncertainty

Emerging technologies like quantum computing, augmented reality, and gene editing tools present many opportunities. At the same time, they are the cause of immense uncertainty. Some particular sources of that uncertainty include the market applications a new technology will serve, the users who will adopt it, the related activities that will support its expansion; and the business models that will be deployed to commercialize it. A holistic approach can help managers unbundle specific sources of uncertainty and the potential interaction among them, according to an article published in Strategy Science in 2021. For example, quantum computing has made several exciting technological advances, yet it can still be difficult to predict how it will evolve and create genuine value. Several questions remain regarding the technology, including at what point it can consistently and reliably outperform existing high-performance computing solutions. While some early-stage approaches have utilized "quantum annealing" technology - which is an alternative method of quantum computing that is already becoming commercially available - the next generation of the technology, dubbed universal gate-based quantum computing, is not expected to become widely-scaled-up for several years.

In terms of specific applications, quantum computing can serve many industries. Possible use cases include finance (for trading and risk management) and logistics (scheduling and planning), and eventually pharmaceuticals (drug development), security (encryption), and more. Still, there may be uncertainty about how various actors will contribute to the technology's value proposition; quantum computing does not necessarily hold utility when used simply to solve current problems faster than existing solutions, so to realize its full potential reformulating old questions or raising new ones is needed (companies such as 1Qbit, which specializes in "recasting" questions and problems related to quantum computing, have grown in value). Cloud-based ventures, including those focused on data storage, will also be important for bringing quantum technology to commercial fruition. Ultimately, it will require a business model - though that is difficult to design when the technology is still rapidly evolving, and use cases are still not fully defined. It will likely be several years before its true potential becomes clear. Meanwhile governments via initiatives like the Barcelona Supercomputing Center (and its spin-off Qilimanjaro) and companies like IBM have been shouldering substantial related upfront investments.

Related insight areas: Artificial Intelligence, Future of Computing, Digital Communications, Biotechnology, Advanced Materials, Blockchain, Fourth Industrial Revolution, 3D Printing, Entrepreneurship, Virtual and Augmented Reality, Internet of Things

LSE Business Review

The role of regional social capital changes over the course of the entrepreneurial process

26 August 2022

The entrepreneurial process does not take place in a vacuum but is deeply embedded in its context, such as where a would-be entrepreneur lives. Johannes Kleinhempel, Sjoerd Beugelsdijk, and Mariko J. Klasing analyse how socio-cultural conditions shape entrepreneurship, emphasising the critical importance of regional social capital and the changing role of contextual conditions over the course of … Continued.

Kellogg School of Management

Podcast: How Can Entrepreneurs Develop a Stellar Sales Pitch?

06 July 2022

Podcast Transcript [PROMO – music fades UP] Laura PAVIN: Attention The Insightful Leader listeners. Our podcast will be taking a little break for most of July. We'll be back in august with something really new and exciting.

Business Model Innovation

Developing new business models can rewrite the rules of an industry

The internet spawned Airbnb, Amazon, Netflix, Uber and many other companies that have used business model innovation to rewrite the rules of their industry. That means they managed to change accepted ways of doing business, challenged the status quo, and served new customer needs while meeting existing needs in new ways. In doing so, they created enormous wealth for shareholders while providing useful services for customers. They have also been sources of inspiration for more established firms like Bosch, IKEA, or Philips as they assess and update their own business models. To better understand business model innovation, it helps to define what a business model is. As noted in the 2021 book Business Model Innovation Strategy, these core elements characterize a business model: what, how, who and why. More specifically, what activities does a business model encompass; how are these activities linked (for example, in terms of sequencing or exchange mechanisms), who performs the activities (which are performed by the focal firm versus those performed by partners, suppliers, or customers), and lastly why does the business model create value and enhance value appropriation for the focal firm?

Firms can innovate the "what" by adding or eliminating activities (for example, when Apple began selling and distributing content for electronic devices in addition to designing and manufacturing those devices). They can innovate the "how" by linking activities in new ways (Netflix first competed against video-rental stores through postal distribution, then via online streaming). Firms can also innovate the "who" by changing who performs certain activities (Tesla performs the sales function in-house instead of outsourcing it to dealers). Lastly, firms can innovate the "why" by adopting new revenue models and value logic (for example, Dropbox makes basic file storage free but charges for additional capacity). Much business model innovation has been driven by advanced information and communication technologies that enable new ways of doing business, though it is distinct from technology and product innovation. Business model innovation often flows from a unique take on customer needs and the best ways to satisfy them. The idea of software-as-a-service, for example, represented by firms like Salesforce, was driven by a realization that customers do not necessarily care about owning software outright. Such business model innovation can be a powerful source of competitive advantage, though it requires astute implementation and simultaneous change in multiple parts of the organization.

Related insight areas: Future of Computing, Fourth Industrial Revolution, Retail, Consumer Goods and Lifestyle, Emerging-Market Multinationals, Economic Progress, Corporate Governance, Digital Communications, Entrepreneurship

Asian Development Bank

Does Corruption Discourage Entrepreneurship?

23 August 2022

In this paper, the authors examine the relationship between corruption and entrepreneurship employing two widely used proxies from the Global Entrepreneurship Monitor and the World Bank Group Entrepreneurship Survey.

Scientific Innovation and Technology

Governments have a big role to play when it comes to adapting global innovation to local needs

Scientific research enables the development of technologies necessary for a more sustainable future, greater well-being, and a more globally-connected society. Innovation and technology must be deeply embedded in education systems, because it is through innovation that new ideas will be applied, new companies formed, and new jobs created. Ultimately, science graduates can become job creators instead of just job seekers - if undergraduate and graduate scientific educations provide flexible curricula with entrepreneurship tracks. Centres for incubating ideas with potential scientific and humanitarian impact must become central to educational institutions. For example, Imperial College London, American University of Beirut and other leading institutions have established innovation parks and startup incubators in order better to instil an innovative and entrepreneurial spirit in students. In addition, many universities are now moving towards more flexible curricula that promote a multi-disciplinary and creativity-based education. Technology and innovation have been vital throughout human history, and this will continue to be the case. While water and steam power were the source of the First Industrial Revolution, electric power for mass production underpinned the second, and electronics and information technology informed the third - bringing us to the fourth.

The borders between physical, biological, digital spheres are merging in the Fourth Industrial Revolution, amid advances in artificial intelligence, quantum computing, the Internet of Things, nanotechnology, and advanced materials. Countries around the world must try to implement policies that facilitate this innovation and integrate it into their development (successful related efforts undertaken by developing countries around the world have been highlighted by the United Nations Conference on Trade and Development). Innovation must be adaptive and incremental - and build on a country's particular potential to develop technological and scientific solutions for local problems, with a possible global impact. In addition, innovation is necessary when seeking to adapt solutions developed elsewhere to local needs. Such challenges can almost always be opportunities for driving innovation forward. In many low-income countries, for example, mobile devices and wireless internet connectivity have proven invaluable for helping address the need for public and information services - and basic utilities such as electricity - in previously-neglected areas. In addition, access to vaccines and medications has expanded in some areas thanks to innovation, with one prime example being drone delivery services in rural Rwanda.

Related insight areas: Entrepreneurship, Quantum Computing, Social Innovation, Biotechnology, Manufacturing, Energy, Digital Communications, 5G, Artificial Intelligence, Advanced Materials, Economic Progress, Cybersecurity, Fourth Industrial Revolution, Internet of Things, Innovation, Diversity and Inclusion, Oil and Gas
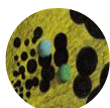
The Science Breaker
Can we read the universe's book of secrets?
29 July 2022

FASER, a small experiment at the CERN LHC, searches for new hypothetical particles proposed in theories that try to address some of the open questions of the Standard Model of particle physics. To enhance its discovery potential, an instrument using novel high-resolution silicon sensors was approved to be added to the experiment during the LHC Run-3, which has just started.

Healthnews
Astigmatism. Symptoms, Causes and Treatment
21 July 2022

Astigmatism is a type of refractive error, like myopia (nearsightedness) and hyperopia (farsightedness). Refractive error is a problem with the accuracy of light focusing on the retina, the light-sensitive tissue inside the eye. Refractive error results from an atypical eye shape, causing light rays not to refract (bend) properly. Refractive error is the most common ocular problem affecting all age groups. The estimated worldwide prevalence of astigmatism in adults is 40.4%.

Nature Biotechnology
Framework for multiplicative scaling of single-cell proteomics
19 July 2022

Many biomedical questions demand scalable, deep, and accurate proteome analysis of small samples, including single cells. A scalable framework of multiplexed data-independent acquisition for mass spectrometry enables time saving by parallel analysis of both peptide ions and protein samples, thereby realizing multiplicative gains in throughput.

Frontiers
Nanomedicines in the Management of Alzheimer's Disease: Current View and Future Prospects
08 July 2022

Alzheimer's disease (AD) is a kind of dementia that creates serious challenges for sufferers' memory, thinking, and behavior. It commonly targeting the aging population and decay the brain cells, despite attempts have been performed to enhance AD diagnostic and therapeutic techniques. Hence, AD remains incurable owing to its complex and multifactorial consequences and still there is lack of appropriate diagnostics/therapeutics option for this severe brain disorder. Therefore, nanotechnology is currently bringing new tools and insights to improve the previous knowledge of AD and ultimately may provide a novel treatment option and a ray of hope to AD patients.

Harnessing Frontier Technologies

Companies are combining and mainstreaming frontier technologies to create new value

Technologies that help us push into as-yet-unexplored realms of biology, energy, computing, and intelligence may be essential for a healthy reset of the global economy in the wake of COVID-19. Whether it is through efforts to understand how quantum physics plays a role in natural energy and human consciousness (quantum biology), developing artificial intelligence that does not require excessive training data liable to inject human bias, or even the study of how disease and disorders might be treated through an understanding of the chemistry of venom (venomics), the post-pandemic Great Reset could benefit from the exploration of technology at its furthest frontiers.

These endeavours could help to rebuild in ways that emphasize sustainability and improve human and environmental health, and establish greater resilience in anticipation of future crises - by bolstering government services, enabling more efficient infrastructure including public transportation and sustainable energy systems, expanding educational opportunities, and fostering ways for businesses to develop services for their customers that create genuine, enduring value.

KEY INSIGHTS FROM THE DISCUSSIONS

"The positive news is that thanks to these frontier technologies, we're at the point where driving ESG and sustainability across the value chain is actually a competitive advantage."

Flexible modular manufacturing, autonomous order management in the hospital ecosystem, and AI-powered cloud connectors of internal/external data sources are examples of frontier technologies transforming collaboration across supply chains.

Digitally-enabled data visibility and intelligence extends across organizations to suppliers, customers, and communities in ways that enable value creation for everyone.

Places like innovation hubs help large firms, small companies, and startups collaborate to create new, agile solutions.

Augmentation technologies, digital academies, and AI process data can serve and empower frontline workers - especially during the current crisis.

Related insight areas: Manufacturing, Blockchain, Quantum Computing, Drones, Fourth Industrial Revolution, Biotechnology, SDG 09: Industry, Innovation and Infrastructure, 3D Printing, Artificial Intelligence

LSE Business Review
How o future-proof your career
11 August 2022

The job market is in constant flux; industries change or become obsolete and new technologies emerge and disrupt. In conversation with Jasmine Virhia, Grace Lordan explains what strategies we can put in place now to make sure we hone the business skills necessary to keep us relevant in the workplace in the future. Q. Does … Continued.

LSE Business Review
How to future-proof your career
11 August 2022

The job market is in constant flux; industries change or become obsolete and new technologies emerge and disrupt. In conversation with Jasmine Virhia, Grace Lordan explains what strategies we can put in place now to make sure we hone the business skills necessary to keep us relevant in the workplace in the future. Q. Does … Continued.

References

1. AI and the Future of Jobs

- Sprinting, swerving and weaving is a matter of agility, Ecole Polytechnique Fédérale de Lausanne, actu.epfl.ch

2. Foundational Elements of the Metaverse

- Open Access and the enduring myths of the long 1990s, London School of Economics and Political Science, blogs.lse.ac.uk
- The End of Real Social Networks, Project Syndicate, www.project-syndicate.org
- The Metaverse in a Fragmented World, Asia Global Institute, www.asiaglobalonline.hku.hk
- Early version of Seoul's metaverse revealed, Cities Today, cities-today.com
- Crime in the metaverse is very real. But how do we police a world with no borders or bodies?, World Economic Forum, www.weforum.org
- Who Will Establish Metaverse Ethics?, Project Syndicate, www.project-syndicate.org
- Community land trusts: Research reveals benefits of an affordable housing model that could help ease the housing crisis, Harvard Kennedy School – Journalist's Resource, journalistsresource.org

3. Entrepreneurship and Development

- What do start-ups expect from venture capital funds when it comes to ESG?, World Economic Forum, www.weforum.org
- It's All in a Name: Reputable Investors Help Startups Shine, Harvard Business School Working Knowledge, hbswk.hbs.edu
- Now Is the Time for Entrepreneurs to Play Offense, Harvard Business School Working Knowledge, hbswk.hbs.edu
- In the era of the global start-up, countries must step up their game to attract FDI, World Economic Forum, www.weforum.org

4. Digital Transformation of Organizations

- Where next for New York's Internet Master Plan?, Cities Today, cities-today.com
- Digital divide efforts focus on care leavers, Cities Today, cities-today.com
- Belfast to launch 'Citizen Office of Digital Innovation', Cities Today, cities-today.com
- Digital platforms inhibit innovation to address today's most pressing issues, LSE Business Review, blogs.lse.ac.uk
- Fintech and COVID-19: Impacts, Challenges, and Policy Priorities for Asia, Asian Development Bank, www.adb.org

5. Successful Digital Transformation

- How digital transformation is driving action in healthcare, World Economic Forum, www.weforum.org
- Syracuse to pilot municipal broadband with ARPA funds, Cities Today, cities-today.com
- Broadband Communications Prioritization and Interoperability Guidance for Law Enforcement, RAND Corporation, www.rand.org

6. Blockchain and Digital Identity

- NFTs as a Force for Good: The Case of the Savvy Salamanders, INSEAD Knowledge, knowledge.insead.edu
- Unraveling How Cybercriminals Extort Businesses Worldwide, Duke Fuqua School of Business, www.fuqua.duke.edu
- The Crypto Blow-Up: The End – or a New Beginning?, Asia Global Institute, www.asiaglobalonline.hku.hk
- 46% of Americans who have invested in cryptocurrency say it's done worse than expected, Pew Research Center, www.pewresearch.org
- Speculative bubbles and herding in cryptocurrencies, SpringerOpen, jfin-swufe.springeropen.com
- Bruce Schneier on the Crypto/Blockchain Disaster, Harvard Kennedy School - Belfer Center for Science and International Affairs, www.belfercenter.org

7. Business of Data

- Improving the Department of the Army's Marketing for Recruitment, Hiring, and Retention of Civilians in Critical Occupations, RAND Corporation, www.rand.org
- African Participation in WTO E-Commerce Negotiations: Policy Positions and Development Issues, South African Institute of International Affairs (SAIIA), saiia.org.za

8. The Digital Enterprise

- Five key trends shaping the new world of work, World Economic Forum, www.weforum.org
- Meet the leader who's committed to transforming the European tech ecosystem, World Economic Forum, www.weforum.org

9. Open Innovation

- Hybrid entrepreneurship - 5 reasons to build a venture while still working, World Economic Forum, www.weforum.org
- Doing research as if participants mattered, London School of Economics and Political Science, blogs.lse.ac.uk

10. Technology Innovation

- The role of regional social capital changes over the course of the entrepreneurial process, LSE Business Review, blogs.lse.ac.uk
- Podcast: How Can Entrepreneurs Develop a Stellar Sales Pitch?, Kellogg School of Management, insight.kellogg.northwestern.edu

11. Business Model Innovation

- Does Corruption Discourage Entrepreneurship?, Asian Development Bank, www.adb.org

12. Scientific Innovation and Technology

- Can we read the universe's book of secrets?, The Science Breaker, thesciencebreaker.org
- Astigmatism. Symptoms, Causes and Treatment, Healthnews, healthnews.com
- Framework for multiplicative scaling of single-cell proteomics, Nature Biotechnology, www.nature.com
- Nanomedicines in the Management of Alzheimer's Disease: Current View and Future Prospects, Frontiers, www.frontiersin.org

Technology Accelerated Innovation Briefing, September 2022

Continue the experience online

## Explore the collective intelligence of the World Economic Forum

In today's world, individuals and organizations can find it difficult to keep up with the latest trends or to make sense of the countless transformations taking place around them.

How can you decipher the potential impact of rapidly unfolding changes when you're flooded with information—some of it misleading or unreliable? How do you continuously adapt your vision and strategy within a fast-evolving global context?

Leaders require new tools to make better strategic decisions in an increasingly complex and uncertain environment. The World Economic Forum developed Strategic Intelligence to help you understand the global forces at play and make more informed decisions.

Connect to Strategic Intelligence

Visit Strategic Intelligence on the web or download the Strategic IQ app on your mobile device to learn more.
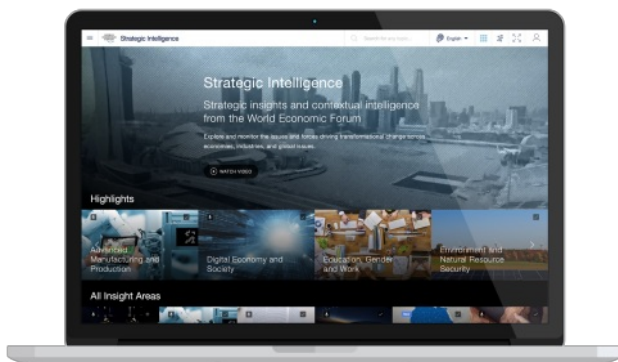
intelligence.weforum.org

wef.ch/si