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# Future of Work Dynamic Briefing

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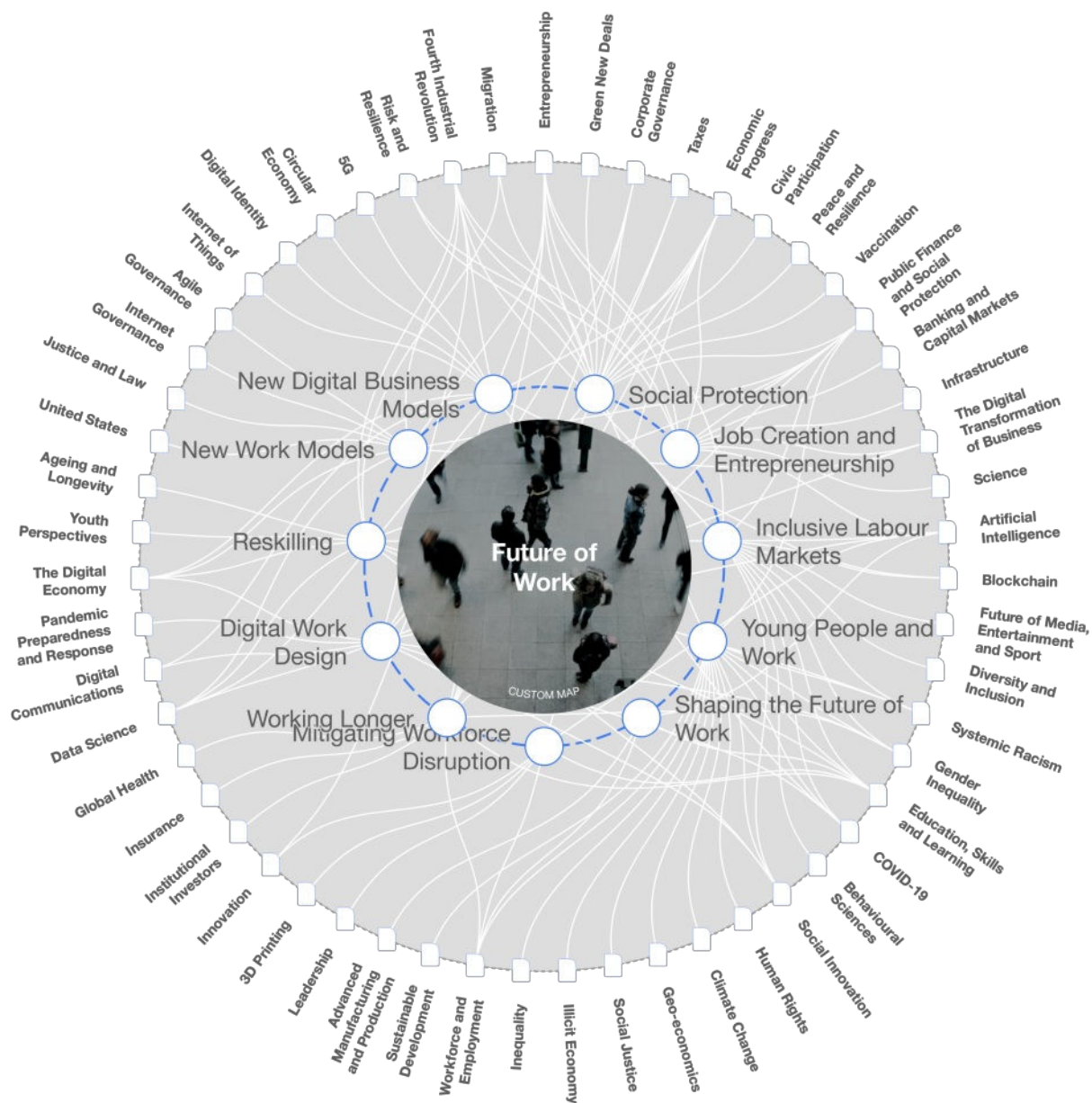


# Future of Work

Last review on Fri 27 August 2021

## 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](https://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.



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# Executive summary

Future of Work

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New work models and technology disruption call for innovative regulation aligned with the needs of workers.

## 2. Job Creation and Entrepreneurship

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# Social Protection

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## New work models and technology disruption call for innovative regulation aligned with the needs of workers

Adequate safety nets can provide workers with (at least) short-term buffers against periods of unemployment and skills that have become obsolete. These crucial protections help ensure human dignity in the face of the large-scale economic and social disruption triggered by the Fourth Industrial Revolution. However, according to the International Labour Organization, only 29% of the global population currently enjoys social security coverage that is adequate for weathering labour market disruption. More than 220 million people do not hold citizenship in the country where they live - a group equivalent in size to the fifth-largest nation in the world by population - denying them many labour protections enjoyed by their peers - according to a study published in Oxford Development Studies. Globally, only 55% of migrants receive social protection in their country of residence but have no access if they leave that country, 23% have access and portability, and 22% lack any at all, according to the Swiss Agency for Development and Cooperation (in some cases unilateral social protection programmes issued by origin countries mitigate non-transferability). Transnational social protections could help mitigate the vulnerability of workers, and of entire healthcare systems in host countries.

It will be critical for countries to carefully review their existing safety nets, in order to prevent labour market changes from worsening inequality - and to better ensure the efficiency and utility of worker benefits. Current systems vary in terms of balancing the responsibility for workforce protection between governments and employers. Government-provided social safety nets, where they exist, can be outdated. Meanwhile employer-based insurance systems for health, unemployment, and retirement may not be well suited for an era when workers no longer remain with a single employer throughout much of their careers. Bolstering social protections could aid the switch from informal to formal employment for many workers, and a United Nations report has suggested that there has been a rapid expansion of social assistance programs in developing countries in the last 15 years, including non-contributory pensions and employment guarantee schemes. The development of new instruments and new incentives could lead to greater related innovation. Indicators of the success of these tools may include the ability to ensure minimum income security, and to guarantee human dignity. And a key question for any policy-maker looking to reform existing approaches will be how to introduce efficiencies while re-structuring benefits systems.

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Related insight areas: [Migration](#), [Entrepreneurship](#), [Fourth Industrial Revolution](#), [Vaccination](#), [Corporate Governance](#), [Taxes](#), [Peace and Resilience](#), [Risk and Resilience](#), [Public Finance and Social Protection](#), [Economic Progress](#), [Civic Participation](#), [Green New Deals](#)

### No Knowledge

We don't have any recent, relevant knowledge available on Social Protection, but you can check back later using Strategic Intelligence if you would like to monitor Social Protection in real-time. You can find more information on how by looking at the "Continue the experience online" page later on in this briefing.

# Job Creation and Entrepreneurship

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## The changing global economy can quickly create value but is slow to generate sustainable jobs, calling for new approaches

Recent decades have witnessed significant change in the ranks of the most predominant companies. In some places, up to 90% of the firms considered the strongest and most successful as of the 1980s no longer enjoy that status. The past 15 years in particular have seen the rapid and successful rise of firms equipped with new, digital business models that have departed from the more traditional methods of former market leaders. For many older and established firms, this period has not just been a referendum on their success, but on their survival - and their ability to preserve jobs and offer the employment opportunities that they have traditionally provided. Many of the new, digital, and platform-based firms have been able to win both significant market valuations and large (often dominant) market shares both quickly - and with relatively few employees, and scant job opportunities. For example, Kodak, the one-time market leader in analogue photography, once employed close to 150,000 people - whereas Instagram, a leader in digital imagery and sharing, had roughly a dozen employees when it was sold to Facebook in 2012 for about \$1 billion.

As economies become increasingly automated and machine-driven, their general ability to create new jobs will likely become more limited. According to the US Bureau of Economic Analysis, returns to capital and to labour in the US have diverged in the past - and the current prognosis is that both wages and the numbers of jobs available in classic industrial sectors will continue to decline, as automation and machines increasingly take over (and low-paying jobs are at particular risk). In order to address these challenges, creative entrepreneurship will no doubt be necessary. However, global entrepreneurship surveys suggest that actual entrepreneurial intention, stability, and feasibility differ greatly between and even within countries. Social-, infrastructure-, human- and financial-capital need to be directed at increasing overall entrepreneurial activity. And, the private and public sectors, including the scientific community, need to work together much more closely, in order to enable the fundamental research at universities to either be commercialized by existing firms, or by new firms created for that specific purpose. Meanwhile efficient startup ecosystems need to embrace all stakeholders, create regional networks, and provide necessary support and infrastructure.

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Related insight areas: [Risk and Resilience](#), [Infrastructure](#), [Economic Progress](#), [Entrepreneurship](#), [Public Finance and Social Protection](#), [Fourth Industrial Revolution](#), [Science](#), [Artificial Intelligence](#), [Banking and Capital Markets](#), [The Digital Transformation of Business](#)

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# Inclusive Labour Markets

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## The technological disruption of labour markets creates both challenges and opportunities for people

The creation of labour markets that enable everyone to participate regardless of race, ethnicity, or background has been a long-time goal of many organizations. While some advances have been made with regard to the share of women in the workforce, and laws barring discrimination, a lack of inclusivity has persisted - not least in relation to women and young people from developing countries. According to the World Economic Forum's 2020 Global Gender Gap Report, there is a necessity for action as women occupy just 21% of the ministerial positions in the world, and spend at least twice as much time on unpaid work as men. Meanwhile the integration of migrants and refugees into labour markets requires linking up a wider array of stakeholders, supporting entrepreneurship, and facilitating the identification, assessment, and validation of skills. There is more to addressing inclusion than simply reforming education - research has shown that qualified women often exit the technology industry because they have concerns about their work environment, and a lack of ethnic diversity and ageism have been documented at some of the fastest-growing companies.

Some of the most common measures used to combat bias include diversity training - and it has been shown that shifting social norms and affecting the collective mindset can be more effective than solely focusing on changing individual outlooks. The influence of TV and the media in general appear to be of particular importance in this regard, as evidenced by a Brazilian study on the effect of telenovelas on decisions about family size and female participation in the labour market made by their audiences. The COVID-19 pandemic has increasingly made work virtual, which has had an impact on teamwork and interaction. In addition, technologies such as blockchain have created greater entrepreneurship opportunities, as they make traditional intermediaries less relevant. In the coming years, we can expect that increasing globalization will give even more people the opportunity to work virtually (and independently) from anywhere in the world. This means that more will theoretically be exposed to employment opportunities that were previously inaccessible. In order to truly boost the inclusivity of labour markets, however, this trend must be accompanied by initiatives to re-regulate employment and bolster social protection systems.

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Related insight areas: [Entrepreneurship](#), [Gender Inequality](#), [COVID-19](#), [Education, Skills and Learning](#), [Systemic Racism](#), [Migration](#), [Future of Media, Entertainment and Sport](#), [Social Innovation](#), [Diversity and Inclusion](#), [Public Finance and Social Protection](#), [Behavioural Sciences](#)



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# Young People and Work

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## Pandemic-related job losses have disproportionately impacted young people

People born between 1990 and 2005 have already experienced a global financial crisis that resulted in mass unemployment, and a global pandemic that in many ways had a similar impact on livelihoods. Many of these young people have actually been disproportionately impacted by COVID-19-related job losses - global youth employment fell by nearly 9% in 2020 compared with the previous year, while adult employment fell by just 3.7%. According to the International Labour Organization, many young people will continue to be impacted for decades unless more is done to help them. Young people also face a disproportionate impact in terms of the inevitable rise of automation and artificial intelligence. To hear directly from young people about the world of work they want for themselves, the results of a survey conducted in more than 180 countries were compiled in The Davos Lab Youth Recovery Plan report. Asked how confident they are that their current skills are sufficient to guarantee them a dignified job for the next five to 10 years, 37% said they are “mostly” confident, and just 16% said they are “fully” confident.

23% of respondents said pay is the most important aspect they look at when searching for a job, but following close behind (at 15%) was the ability to have a societal impact. Their concerns are not simply material; if they had to pay for unexpected medical bills amounting to a month of their income, more than 16% said they’d go into debt and either wouldn’t be able to pay them off or would have to take on another job. The World Economic Forum’s Future of Jobs Report published in 2020 estimates that 85 million jobs may be lost by the year 2025 due to a shift in the division of labour between humans and machines; the Youth Recovery Plan report recommends that governments respond to this by using tax incentives to encourage more private sector employers to reskill (and upskill) workers. A consolidation of worker power post-COVID-19 may also prompt a greater number of employers to try harder to attract young talent, according to the report. Meanwhile academic curricula can be updated to better reflect employers’ needs and ensure that young people are properly prepared.

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Related insight areas: [Human Rights](#), [Climate Change](#), [Entrepreneurship](#), [Systemic Racism](#), [Geo-economics](#), [Illicit Economy](#), [Education](#), [Skills and Learning](#), [Inequality](#), [Public Finance and Social Protection](#), [COVID-19](#), [Social Justice](#), [Workforce and Employment](#), [Sustainable Development](#), [Social Innovation](#), [Gender Inequality](#)

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# Working Longer

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## **Governments need to encourage and support greater work opportunities for older people**

In the past 50 years, the average working life in developed countries has changed drastically. Once-predictable career patterns have shifted dramatically, re-drawing the traditional route of education, work, child-rearing, and retiring. While most people still complete their education in their late teens or early twenties before entering the workforce, many now find periods of retraining and reskilling necessary. Women have entered the workforce in larger numbers, shifting societal norms as they become essential income providers, and people who once could have planned on a 30-to-40-year career with one company now frequently work for multiple employers. The gig and informal work economies have grown rapidly, potentially becoming the preferred (or necessary) mode for larger portions of workforces. Many countries, faced with ageing demographics, are looking to raise retirement ages and expand working lives. Some people are working longer because they find themselves ill-prepared for retirement, while others continue because they find purpose in their jobs. Still others leave the workforce early, due to disability or unanticipated job losses. All of these seismic shifts have blurred the lines between education, work, retirement, and personal life.

As a result, governments, employers, and workers themselves have struggled to find a reassuring way forward. More and more career paths will likely require increasingly frequent periods of adult education and reskilling, and while family-friendly work environments are not a new idea, the concept needs to become standard practice. However, the gig and informal work economy raises questions about how best to provide people with access to benefits including training - which have been traditionally provided by full-time employers. Governments need to create policies and practices that encourage and support greater work opportunities for older people and enable them to work longer if desired. They can start by addressing the barriers to keeping older people in the workforce, such as age discrimination and the cost of healthcare and retirement plans. In general, people will likely have to be more realistic about their personal role in ensuring they are well prepared for retirement. As many societies age, the ability and willingness to put the systems and structures in place to help navigate the shifting dynamics of work will be a major factor in enabling well-being.

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Related insight areas: [Global Health](#), [Corporate Governance](#), [Public Finance and Social Protection](#), [Insurance](#), [Institutional Investors](#), [Education, Skills and Learning](#), [Taxes](#), [Economic Progress](#), [Workforce and Employment](#), [Gender Inequality](#), [Entrepreneurship](#)



MIT Sloan Management Review

### Five Ways Managers Can Help Prevent Quiet Quitting

27 September 2022

By now, you're likely acquainted with the term quiet quitting . Informally defined in a 17-second TikTok video by user Zaid Khan, quiet quitting refers to restricting efforts at work and not going above and beyond one's job duties. The video quickly launched the term into the business zeitgeist — where it's found surprising staying power. I'll admit that when any trend or meme takes hold like this, I'm always a bit skeptical. I'm not alone; much of the pushback on quiet quitting has boiled down to "what's new about this?" after all, people have always coasted at work.

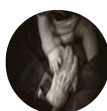


London School of Economics and Political Science

### Progressive pension systems can help tackle inequality caused by job instability

26 September 2022

Job stability varies drastically between individuals, with some people staying in jobs for an extended period of time, and others frequently losing their jobs. As Leanne Nam writes, this heterogeneity can be an important source of inequality that often goes under the radar of governments. Drawing on a new study, she illustrates how progressive pension ... Continued.



LSE Business Review

### Reforming pensions to protect adequate and sustainable benefits

06 September 2022

Pension design is a challenge for many countries. Additionally, many people make bad choices, not saving enough, making bad investment decisions, paying high administrative charges, and/or retiring too soon. Nicholas Barr writes that exposure to risk must decline with age, changes must be phased in gradually, and there must be no shocks for workers close to retirement. ... Continued.



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.

# Shaping the Future of Work

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## Companies are taking new approaches to shaping the workforce and workplaces

New technologies, demographic shifts, and the impact of COVID-19 on the labour market have been radically transforming the ways organizations conduct business - and the skills needed to help them thrive. Nearly 50% of companies expected that by 2020 automation would lead to some reduction in their full-time workforce, and more than half of all employees will require significant re- and upskilling, according to the World Economic Forum Future of Jobs 2020 report. The pandemic has exacerbated these trends, and increased the need for large-scale, informed, and collaborative action.

The Forum's initiative on the future of work argues for the development of more innovative, large-scale upskilling, reskilling, and redeployment initiatives. Companies have both an opportunity and a mandate to be in the driver's seat of this transformation, given that upskilling and reskilling at scale can enhance the economic dynamism of their businesses. At the same time, it can create an ecosystem that ensures all workers are employable and productive.

### KEY INSIGHTS FROM THE DISCUSSIONS

According to a survey by Manpower Group, digitization appeared as the greatest indicator of job creation. Of those companies digitizing 86% intend to hire, while among those choosing not to digitize only 11% intend to hire. COVID-19 has fostered "super-employers" - in the US, the top 10% of companies represent 13% of all jobs, and 30% of all blue-collar jobs.

Companies need to focus on the reskilling pathways between jobs that are disappearing, and the new ones that are being created. Most people have more skills than they give themselves credit for, based on self-evaluation - and it is not that hard to retrain people for adjacent jobs. People also are more easily trained in areas they are passionate about.

Reskilling internally is good for profitability, as recruiting externally is 63% more expensive. Half the costs related to severance can be saved by reskilling instead of firing.

Employee well-being has to be a top priority. Microsoft surveyed 30,000 people in 31 countries and observed that 70% prefer hybrid models of work. 1 in 5 said their employers does not care about their work/life balance, while 54% feel overworked, and 39% feel exhausted.

A key challenge is to address the differentiated effects of remote/hybrid

working on people of different genders and ages. For example, young people said they are struggling the most in a virtual environment, due to the loss of networking opportunities.

Defining what the best use of the office is will be key. Will this be the place for networking, meetings, and ideation? Managers working in a hybrid workplace require different skillsets. How do you ensure productivity? There is no one-size-fits-all solution for hybrid work, as it depends on culture, size of the organization, and type of work.

95% of the global population is not going to be part of this reskilling revolution - how do we address non-white collar jobs?

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Related insight areas: [Education, Skills and Learning](#), [Artificial Intelligence](#), [Workforce and Employment](#), [Manufacturing](#)



[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.



[LSE Business Review](#)

### How to future-proof your career

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# Mitigating Workforce Disruption

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## Advances in technology are disrupting the sector's labour market

More than half of the children now entering primary school will eventually have a job that does not currently exist, according to a report published by the World Economic Forum; as more business models are disrupted, it will very soon have a broad, profound impact on employment. One of the biggest factors driving that change is the advancement of manufacturing technologies. This will transform manufacturing into a relatively sophisticated sector in need of fewer workers and more skilled engineers. Overall, as much as one quarter of the tasks currently completed by industrial workers in developed countries could be automated by 2025, according to the McKinsey Global Institute. Preparing these workers for the difficulty of a transitioning labour market poses a serious challenge for both governments and companies, and is likely to require an inclusive, multi-stakeholder approach. In addition, schools and universities need to better anticipate the changes being brought about by disruptive innovation, and adapt accordingly - while outside of school, lifelong learning must become more common for workers in need of new skills for the future.

Educational institutions need to collaborate more closely with governments and companies in order to identify essential skills and attributes for the future - particularly science, technology, engineering and mathematics (STEM) skills, critical thinking, and organizational science (studying the hows and whys of the ways that organizations function). There is a looming shortage of data scientists, for example, making it a potentially ideal educational path. Most business leaders need to reorient their strategies in order to close the gap between employee supply and demand, and to better manage continuously evolving technologies. Innovative ways of upgrading existing skills must be integrated into daily routines, and companies need to be prepared to accommodate a new generation of digital natives. To that end, businesses can deploy digitally-enabled training that makes use of augmented and virtual reality. To help ensure a sufficient talent pipeline for advanced manufacturing companies, the World Economic Forum's Advanced Manufacturing and Production Platform set up a taskforce of Chief Human Resource Officers (or their equivalent), supported by academia, governments and civil society to more proactively transition to the jobs of the future.

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Related insight areas: [Leadership](#), [Innovation](#), [Economic Progress](#), [Workforce and Employment](#), [Artificial Intelligence](#), [Education](#), [Skills and Learning](#), [3D Printing](#)





LSE Business Review

## How human capital makes or breaks digital innovation

26 October 2022

The success of digital transformation in organisations depends on a combination of technology and people. However, many leaders ignore the role of human capital in their plans. Ricardo Viana Vargas writes that when digital transformation efforts fail, it is often due to the mismanagement of people. Netflix CEO Reed Hastings, considered one of the ... Continued.



Fraunhofer-Gesellschaft

## Sustainable and efficient innovations for the plastics industry

06 October 2022

At the world's largest trade fair for the plastics and rubber industry, 14 Fraunhofer units have adopted the "We know plastics" slogan and will be showcasing innovative, sustainable and efficient approaches, solutions and developments for plastics processing. From October 19 to 26, 2022, the topics of circular economy, digital transformation, climate protection and functionalization will take center stage at Booth SC01 in Hall 7.



Fraunhofer-Gesellschaft

## Crash test dummies for e-scooters

04 October 2022

Practical and environmentally friendly, e-scooters offer great flexibility. It is no wonder that more and more people are using this form of transport. However, this rise in popularity has been accompanied by an increase in accidents resulting in severe injuries. The risk associated with these speedy runabouts is widely underestimated. In response to this, Fraunhofer researchers studied a typical accident scenario and the associated injuries as part of the HUMAD project. The experts also tested novel materials for helmets and protective gear. These could provide much better protection than conventional products.



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.

# Digital Work Design

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## Organizations have needs for flexibility, speed, and scalability that call for new ways of organizing work

Finding new ways to organize work - both within firms and at their fringes - has become a central factor in economic success or failure. As the focal point of organizations shifts alongside the global economy from an emphasis on products to information, a shift is also occurring from linear to exponential organizations. Organizations now need to be ambidextrous, in the sense of providing structure, culture, and processes for older, established work and products, while at the same time they provide new and different work designs for the technology-product-market combinations of tomorrow. One related trend that has only been accelerated by the advent of the COVID-19 crisis is the importance of being able to work globally in virtual teams. As more companies (such as Twitter and Microsoft) announce that employees can now work from home at least part of the week indefinitely, a new work reality will take hold that is more bottom-up than top-down, and shifting from concentrated, large structures to distributed smaller structures, and from hierarchical organization to team-and-work-group-based structures across departments and even whole entities.

This calls for new ways to ensure entrepreneurship, and for the identification of ways colleagues can function even while having never met face to face. One key for organizing this new work paradigm will be setting the correct defaults - as they are the most effective and efficient way to influence behaviour. In some parts of an organization, control may be the best default, whereas in others it may be trust. Some parts of a company may flourish through bureaucracy and perfection, whereas others produce the most value possible through iteration and experimentation. Digital work design will be influenced by some developments that will continue indefinitely. Greater openness, for example, means companies will have more permeable boundaries, allowing permanent employees to work together with “free permanent” employees handling project based work on a temporary contract - in turn giving both companies and workers the benefits of “flexicurity” (flexibility and security). In addition, democratization and de-hierarchization will increase participation in decision-making at multiple levels, and will involve everything from choosing team members and leaders to direct ownership through equity stakes.

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Related insight areas: [Pandemic Preparedness and Response](#), [Fourth Industrial Revolution](#), [Digital Communications](#), [Gender Inequality](#), [Corporate Governance](#), [Artificial Intelligence](#), [Social Innovation](#), [The Digital Transformation of Business](#), [COVID-19](#), [Economic Progress](#), [The Digital Economy](#), [Data Science](#)

### No Knowledge

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# New Digital Business Models

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## Technology-enabled models can help companies provide value and build resilience

Most executives see innovation as critical for their business. And, according to the McKinsey Global Innovation Survey, 80% think their current business models are at risk of disruption. COVID-19 has only accelerated the shift to online and touchless experiences, and spurred innovative uses of technology and data that will increasingly underpin business models. Digital subscription models, like Dollar Shave Club or Netflix, have already risen to prominence, as have on demand models like Uber or TaskRabbit - while technology has made it increasingly easy to adopt platform models upon which users and even other companies can build their own presence (examples include Facebook or YouTube). The World Economic Forum estimates that 70% of the value created over the coming decade will be based on digitally-enabled platform business models, due to the rapid digitalization of economies around the world. Collaboration can also unlock value - research shows that digital “ecosystems” are expected to account for more than 30% of global corporate revenue by 2025. One example is Project Connected Home, a joint effort led by Amazon, Apple, Google and the Zigbee Alliance to set standards for smart home technology.

“As-a-service” business models are an increasingly prevalent and effective way for companies to turn what might otherwise be one-off purchases into more predictable, longer-term, and typically larger revenue streams. Microsoft, for example, now offers its Office 365 product through software-as-a-service subscriptions, as an alternative to purchasing an entirely new version of Office every few years. Meanwhile Amazon offers its AWS product in a way that provides infrastructure as a service (IaaS) on a subscription basis. Thanks to increased digital connectivity and internet use, there has been a surge of data that can potentially provide value not just to companies but to society in general. Many companies are exploring innovative ways to unlock the value of this data in a responsible way by embedding trust, privacy, and security into their models. A company called Points Technology has for example used a confidential computing framework based on TEE (trusted execution environment) and other encryption technology to make data usable but not visible - in order to ensure privacy, security, and compliance when it comes to banking, government-led data-sharing initiatives, and marketing campaigns.

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Related insight areas: [The Digital Economy](#), [Digital Communications](#), [Circular Economy](#), [Fourth Industrial Revolution](#), [Innovation](#), [Internet of Things](#), [Entrepreneurship](#), [Digital Identity](#), [COVID-19](#), [Economic Progress](#), [5G](#), [Data Science](#), [Blockchain](#)



**Boston Consulting Group**  
**Middle East Companies' Ambitions Need a Step-Change in Data Maturity**

17 October 2022

In BCG's 2021 Data Capability Maturity Assessment (DACAMA) survey, companies were asked about their current performance in data maturity and their future aspirations—specifically, where they plan to be over the next three years. This is the third DACAMA survey, with previous surveys were conducted in 2015 and 2018. Approximately 1,100 companies worldwide participated in the survey, with 50 companies from the Middle East. Company performance is rated across seven core data capabilities: Vision, Use Cases, Analytics Setup, Data Governance, Data Platform, Ecosystem & Partnerships and Leadership, Change & Enablement. These are among the more than 40 competencies covered collectively.



**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.



**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.



**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.



**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**  
**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 Tiff, Director of Strategic Initiatives for the City of Syracuse, told Cities Today.

## The Fourth Industrial Revolution and demographic shifts require short-term reskilling to meet labour market demands

Given the pace of the Fourth Industrial Revolution compared to those of the previous three, there is an uncomfortably short interval available to build the training systems and labour market institutions necessary to develop new skillsets. A report published by Gartner predicted net job creation through the use of artificial intelligence by 2020, and two million net-new jobs as a result of the technology by 2025. However, related public spending has fallen steadily for years in most Organisation for Economic Co-operation and Development countries, according to the McKinsey Global Institute. The AI & Machine Learning Imperative, a guide published by MIT SMR in 2020, predicts a growing gap between the sophisticated tools companies can produce with technology, and the parts of these companies that can actually use the tools in production - due to a lack of skills. Enabling the three billion members of the global workforce to navigate this industrial revolution requires a greater variety of adult training and learning opportunities. Only about 11% of adults in the European Union aged between 25 and 64 were participating in education and training programs as of 2019, according to a European Association for the Education of Adults report.

Gaining formal qualifications alone will not equate to successful re-skilling, however; lifelong learning opportunities such as modular short-cycle courses, experience on the job, and exposure to new projects are necessary to help more people gain the skills that match labour market demand (certifications do enable workers to validate their skills wherever they may apply them, it should be noted). Businesses need to recognize and invest in their “human capital” as an asset, rather than see it as a liability, according to a World Economic Forum report. Global demographic shifts are impacting economic growth tremendously, and drawing distinctions between established, rapidly ageing economies, and developing regions with large, burgeoning populations of young people. Strategies for bridging this emerging division include automation (used extensively, for example, in Japan) and encouraging immigration flows (as has been the case in Germany and Italy) in older countries, and working to ensure that school systems are well funded in younger countries (such as in the Middle East and sub-Saharan Africa). According to the OECD, closing the skills gap will require a solid understanding of the current skill base, proactive talent management strategies, and sustained dialogue among companies, governments and education providers.

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Related insight areas: [The Digital Economy](#), [Education, Skills and Learning](#), [Data Science](#), [Systemic Racism](#), [Ageing and Longevity](#), [Youth Perspectives](#), [Migration](#), [Fourth Industrial Revolution](#), [Public Finance and Social Protection](#), [Artificial Intelligence](#), [Social Innovation](#)

### No Knowledge

We don't have any recent, relevant knowledge available on Reskilling, but you can check back later using Strategic Intelligence if you would like to monitor Reskilling in real-time. You can find more information on how by looking at the "Continue the experience online" page later on in this briefing.

# New Work Models

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## Temporary, part-time, and independent work remain overlooked in research and policy-making, even as they replace permanent employment

Global labour statistics tend to overlook temporary, part-time, and independent contracting work, and focus solely on full-time and permanent employment. Yet, research suggests that a significant portion of net employment growth since 2005 has occurred in the independent and self-employed categories - meaning that what was once deemed “non-standard” work is becoming the new norm. Managers are now more likely to oversee diverse, geographically-dispersed teams, to assess worker performance with new types of analytics, and to expand their searches for new recruits to non-traditional environments. The rise of “platform” economies (based on broad, far-reaching digital entities like Amazon or Uber) has created more flexible work opportunities and a “gig” economy. However, this flexibility is only rarely an advantage for workers, and mostly only a benefit for contracting entities. Workers must rely on their prioritization skills to maintain a work-life balance, and on their ability to cope with demands for near-immediate availability and instant comparisons (in the form of ratings) with their gig worker competition - which is constantly expanding. Customers are meanwhile exerting their own power via ratings and related algorithm tweaks, which creates more risk for individual workers than for the companies hiring them on a contract basis.

Concerns related to the lack of governance and legal protections for contractual work have increased, not least because its prevalence is poorly captured in current statistics. Most related studies have relied on data shared by relatively few digital talent platforms, and few countries have completed comprehensive labour market analyses that include these new forms of work. Data published by the US Bureau of Labor Statistics in 2017, for example, showed a surprising decline in American workers with “alternative work arrangements” compared with 2005, according to a report published by the Brookings Institution. However, it is estimated that by the year 2027 more than half of the roughly 145 million working Americans will fall within the “independent worker” category. Current legal standards in many countries for what constitutes an actual employee, rather than a contractual worker, are vague at best. Worker classification and related labour model regulation require updating, in order to formally recognize the needs of growing segments of the global workforce. It is crucial that more related data, research, and information be made available, and that relevant terminology and measurement standards are harmonized within and across countries.

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Related insight areas: [Data Science](#), [United States](#), [The Digital Economy](#), [Agile Governance](#), [Internet Governance](#), [The Digital Transformation of Business](#), [Justice and Law](#), [Fourth Industrial Revolution](#), [Entrepreneurship](#), [Public Finance and Social Protection](#)



### No Knowledge

We don't have any recent, relevant knowledge available on New Work Models, but you can check back later using Strategic Intelligence if you would like to monitor New Work Models in real-time. You can find more information on how by looking at the "Continue the experience online" page later on in this briefing.

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## Acknowledgements

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- Some URLs have been shortened for readability. Please follow the URL given to visit the source of the article. A full URL can be provided on request.

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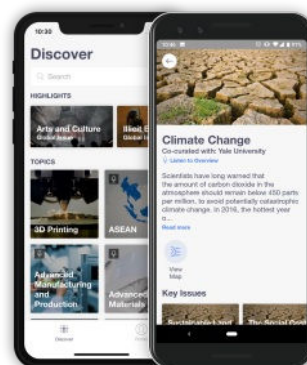
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