FUTURE OF WORK

ADAPTING TO CHANGING LANDSCAPES AND EMERGING TRENDS

INTRODUCTION

"Machines are coming to take our jobs" has been a major concern since the First Industrial Revolution. On the contrary, **it actually raised labour and product productivity**. In the past, innovation and technological progress have caused creative disruption but **they have created more prosperity than disruption.** The notion of work has been significantly evolving in the last century, but what has not changed is that there is **still a need to organize societies to survive and prosper, and provide decent work.**

But, now we are riding a **new wave of uncertainty as the need and desire for innovation has been triggered by the revolutionary technologies driving the Fourth Industrial Revolution.** This, again, has given **momentum to the discussion surrounding the nightmare of humans being replaced by machines** in the future of work.

In this background it is important to understand:

- What is the future of work and what elements matter in understanding the future of work?
- What are the factors driving it?
- What are the challenges in ensuring a human centric future of work?
- What key initiatives have been taken to successfully navigate the future of work?
- What needs to be done further for a prosperous future of work?

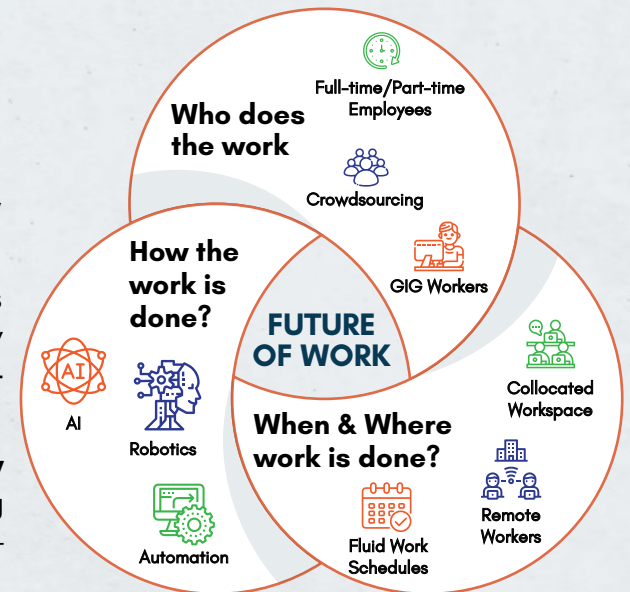# WHAT IS THE FUTURE OF WORK AND WHAT ELEMENTS MATTER IN UNDERSTANDING THE FUTURE OF WORK?

- There's **no one-size-fits-all definition** of the future of work today. Part of the reason is that our **perception of the future** for employers and their employees **constantly changes.**

  ➢ For example, only a few years ago, not many companies would have imagined that most of their staff would one day be working in **hybrid environments connected by collaboration tools.**
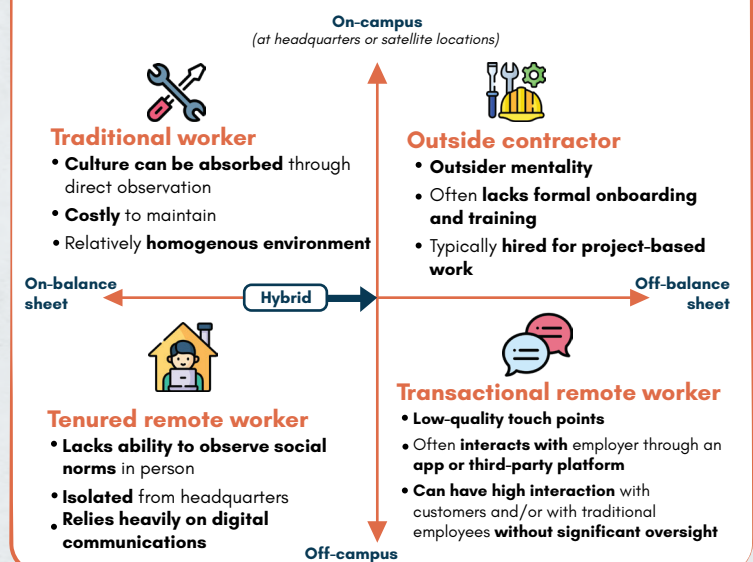
- The term is relatively broad, as it can refer to **technology innovations and digital transformation** initiatives powering new workflows and how, when, and where work will be completed.

Hence, the core components of the future of work include:

➢ **The nature of work:** One of the main talking points connected to this concept is **how projects and tasks are completed** in future. **Technology will make considerable alterations to how work is done** in the future. The connection between man and machine will grow to improve productivity, creativity, and efficiency.

➢ **The workforce of the future:** It seeks to open the door to a wide variety of employee personas, different from the team members we knew a few years ago. Not only are **AI systems taking over specific repetitive tasks,** but other kinds of **employees** who are off campus and off balance sheets (refer to the infographics) **are entering the workforce in a non-traditional capacity.**

Who does the work — Full-time/Part-time Employees, Crowdsourcing, GIG Workers
How the work is done? — AI, Robotics, Automation
When & Where work is done? — Collocated Workspace, Remote Workers, Fluid Work Schedules
FUTURE OF WORK

HOW THE WORKFORCE GOES TO WORK?

On-campus
(at headquarters or satellite locations)

Traditional worker
- **Culture can be absorbed** through direct observation
- **Costly** to maintain
- Relatively **homogenous environment**

Outside contractor
- **Outsider mentality**
- Often **lacks formal onboarding and training**
- Typically **hired for project-based work**

On-balance sheet ←→ Hybrid ←→ **Off-balance sheet**

Tenured remote worker
- **Lacks ability to observe social norms** in person
- **Isolated** from headquarters
- **Relies heavily on digital communications**

Transactional remote worker
- **Low-quality touch points**
- Often **interacts with** employer through an **app or third-party platform**
- **Can have high interaction** with customers and/or with traditional employees **without significant oversight**

Off-campus

➢ **The workplace of the future:** It calls into question **where work should be completed.** Standard office environments are rapidly disappearing in favour of more flexible spaces, which allow for **common trends like remote and hybrid work.**

■ In fact many experts believe that the **potential for the future workplace could lie in the metaverse.**

● Hence, the future of work is **all about people**—the way they work, where they work, and even who is at work—**and the way technology is driving change.**

➢ Therefore, **understanding the future of work** would **help us better prepare for it** and ensure that **the transitions remain human centric.**

IN CONVERSATION
FUTURE OF WORK THROUGH METAVERSE

Vini: Hey Vinay! I think metaverse has become an over-hyped term when it comes to its relevance in the future of work?

Vinay: Why do you think so?

Vini: Well, in the metaverse, users can engage in various activities such as **socializing, gaming, shopping,** but I don't think it can have a paradigm impact on the future of work.

Vinay: Vini! Contrary to this I believe metaverse has the potential to significantly impact **work culture in organisations** in several ways.

Vini: Could you please elaborate?

Vinay: For example, Metaverse could facilitate **remote collaboration along with flexible work arrangements**. This would enhance the learning outcomes in the workplace.

Vini: **That's true**. But, I believe the widespread adoption and integration of the metaverse into work culture will take **time and require infrastructure development.**

Vinay: Certainly Vini. Organizations will need to **carefully navigate** certain challenges including **technological advancements, and considerations around privacy, security, and ethical implications.**

Vini: **True!** Even though Metaverse doesn't actually yet exist, it has the potential to change where people work and how they work.

WHAT ARE THE FACTORS DRIVING THE FUTURE OF WORK?

● **Demographic change:** In developed countries like Japan, Italy and Germany among others, a **dramatic decline** is expected in the share of the **working-age population.**

➢ This will lead to **shortages of qualified labour** as well as reallocation of **resources towards healthcare, social security, etc. will take place.**

➢ However, in **developing countries opposite** is likely to happen with a young and growing workforce, expanding middle class and rising urbanisation.

● **De-globalisation:** Between 1990 and 2008, global trade in goods soared from **15.3% to 25.2% of world GDP** i.e., **economies were far more open.** But, **since 2012,** global trade slipped and is **growing slower.**

FUTURE OF WORK: PROJECTION FOR 2023–2027

75%

Technological shift
Approximately **75% of companies looking to adopt** big data, cloud computing and AI.

Job driving technologies
Big data analytics, climate change and environmental management technologies, and **encryption and cybersecurity**

Sectors to see Job decline
Administrative roles and in traditional security, factory and commerce roles

Skill upgradation

6 in 10 workers will require training before 2027, but **only half of workers are seen to have access to adequate training opportunities today**

Source: Future of Jobs Report 2023

- Recently, **COVID-19, US-China confrontation** and **Russia-Ukraine war** has also dented the phenomenon of Globalisation.Such a phenomena **blurs the comparative advantage in the global economy.**

- **Value creation via digital economy:** According to Accenture, **70% of new value created over the next decade** (>$100 trillion) will be **based on digitally enabled platform** business models.

  - The digital economy brings new value, but also **creates risks of further exacerbating exclusion, an unequal concentration of power and wealth, and social instability.**

- **Climate change:** Given the tight link between economic activity and the natural environment, **environmental degradation** and efforts to **environmental sustainability** will profoundly shape the future of work.

  - According to the ILO, advancing towards the **decarbonization of the energy sector will result in the net creation of 18 million jobs around the world.**

- **Public versus private jobs:** In the **early industrial age, government jobs** were leading progress in new work models by pioneering standards such as **fixed working hours, weekends, work standards and training,** etc.

  - But, now technological advances changed the paradigm of work and tilted the **balance in favour of private sector companies.**

- **Rise of alternative workforce:** For example, in India **23.5 million workers are expected to** engage in **gig economy by 2029-30** from 7.7 million in 2020- 21 (NITI Ayog).

  - Such a change will raises issues about **evolving a new social contract.**

- **Entrepreneurial ecosystem:** In the past decade, the **number of investors and venture funds** that prioritize **start-ups in the social domain has been steadily growing.**

  - This explains the rise of a recent trend called **'zebra start-ups'.**

  - Zebras, contrary to 'unicorns' (startups with a valuation of $1 billion) are characterized **by doing business, not aiming to disrupt current markets,** but **helping to solve a societal problem (refer infographics).**

  - In the last few decades, **new flexible models of access to financial resources has developed for entrepreneurs. Revenue-based investing, entrepreneur redemption, online lending, crowdfunding and blockchain** are few such examples.

IMPACT OF COVID-19 ON FUTURE OF WORK

The pandemic **accelerated three broad trends** that will continue to reshape work:

Remote work: Remote work and virtual interactions are likely to continue, although less intensely than at the pandemic's peak.

E-commerce: E-commerce soared growing at two to five times the pre-COVID-19 rate and other kinds of virtual transactions such as telemedicine, online banking, and streaming entertainment took off.

Faster adoption of digital technologies: Adoption of technology, including automation and AI, helps to either reduce **workplace density or deal with surging demand for items.**

SEPARATING ZEBRAS FROM UNICORNS

A look at what makes one company mythical, while another just has stripes

| UNICORN		ZEBRA
THE WHY		
Exponential growth	Purpose	Sustainable prosperity
Exit, liquidity event, 10x	End game	Profitable, sustainable, 2x
THE HOW		
Zero sum, winners and losers	Worldview	Win-win
Assertive	Style	Participatory
THE WHO		
Private, individuals, shareholders	Beneficiary	Public, communities
Eyeballs on a page (opaque)	Monetization	Consumer pays for service/ product (transparent)
THE WHAT		
Hockey stick	Growth direction	Regenerative growth
Quantity	Metric	Quality

- **Emergence of social enterprise:** Earlier impact of enterprises was measured only by their financial impact, while now their social impacts are being given equal importance.
  - For many companies **"inclusive growth"** is one of their top goals eclipsing strategies like growing market share or being the category leader.
  - Also, the **Environment, Social and Governance (ESG) Norms for corporate governance** is also a step in this direction.
- **Customer centric services:** The future of work is a state of being a highly customer-centric company. Organisations have to **grapple with rapid changes in customer behavior** and the technology enabling these changes.

DISRUPTIVE TECHNOLOGY AND FUTURE OF WORK

- Economists often consider the effects of technology and automation in terms of **whether it creates or destroys jobs, paying less attention to how it changes jobs and the wages.**
- The **World Economic Forum** estimates that **by 2025, technology will create at least 12 million more jobs** than it destroys i.e., in the long run, **automation will be a net positive for society.**
- Although, **automation can create higher-paying jobs,** more often it drives wages down (refer to the infographics).
- However, **technology does not purge the need for human labour,** necessitate human intervention and hence, automation does not mean humanless.
  - For example, in 2018, "Flippy," a hamburger-flipping robot was forced to the sidelines one day after being unable to keep up with customers' orders. The restaurant's response was asking human cooks to step in.

Coping with automation

→ **Higher skills** are needed, hence **wages rise**

→ Use of technology **reduces risk** assosiated with the job, hence **wages decline**

→ May **widen income inequality**

- Automation can **increase productivity, improve efficiency, and reduce errors.** Robots can, and should, occupy **professions that are too risky for human workers to perform.**
- Also, **advances and a better understanding how machines and humans can interact** in physical spaces are needed.
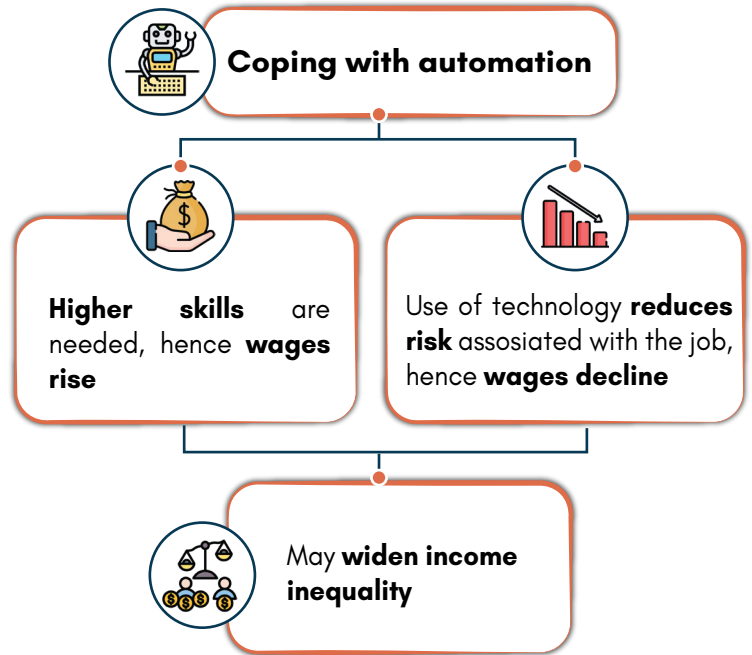
WHAT ARE THE CHALLENGES IN ENSURING A HUMAN CENTRIC FUTURE OF WORK?

- **Government regulation:** There is a growing understanding that **government social protection measures** and **legislation** will largely become **outdated.**
  - They may not ensure that **disruptions do not worsen levels of existing inequalities or jeopardize human dignity.**
- **Skill gap:** According to the McKinsey Global Institute, more than 60% of current jobs have at least 30% work that can be performed by computers. **Many jobs are already fully automatable.** Automation has caused occupational and skill shifts across labour markets.

- **Relevance of education:** The World Economic Forum (WEF) argues that **65% of children entering primary school** today will ultimately **work in completely new job type**s that do not yet exist.
  - Today's children will probably be engaged in **self-crafted, human-centred jobs** that are currently unknown which may not be tedious and will be enjoyable.
  - Therefore, people will need to rely not only on traditionally defined intelligence (i.e. IQ) and emotional intelligence (EQ), but also on **global intelligence (GQ) and digital intelligence (DQ).**
- **Issues faced by employees:** In gig economy employees face the issues related to income security, social protection, conducive work environment, etc.
  - Also, rising virtual working would lead to **atomisation and social isolation** adversely affecting their **mental health.**
- **Potential to reinforce the existing inequalities:** In India, **18% of the employed population are living in poverty,** pointing to a low-wage problem. This problem could be further aggravated with the adoption of technologies.
  - Impact of technological adoption on employees' income will be contingent on their **ability to adapt to changes and acquire the know-how** required to work alongside new technologies and machines and use new digital tools and services.
- **Digital divide:** The digital divide lies in gaps in **physical access to the Internet** and other technologies, as well in **digital technology skills and use.**
  - For example, nearly **47%** of the **world's population** are **not connected** to the **Internet**.
- **Relevance of public sector and services:** Public service tends to be comparatively more **hierarchical** and are built for **robustness** rather than decentralized flexibility.
  - They are seldom innovative and are facing the need to become **quicker, more diversified and agile, or to operate effectively in conditions of continuous disruptions.**

IMPACT OF HYBRID WORK MODEL ON WOMEN'S WORKFORCE PARTICIPATION

- Hybrid work refers to a combination of **'remote' and 'in-person' working.** The concept of hybrid work is **still at a nascent stage.**
- **ICT (Information and Communications Technology)-intensive** sectors such as technology, pharmaceuticals and biotechnology, business and consulting services **seem to be adaptive towards hybrid work.**
- Moreover, there is a **possibility of expansion** of hybrid models beyond technology-intensive sectors to include sectors like **consumer goods, social services, teaching or real estate and construction.**
- But the **option to work remotely and the ease of transition** to hybrid work **varies by women's location (metro/other), seniority levels, and sector.**
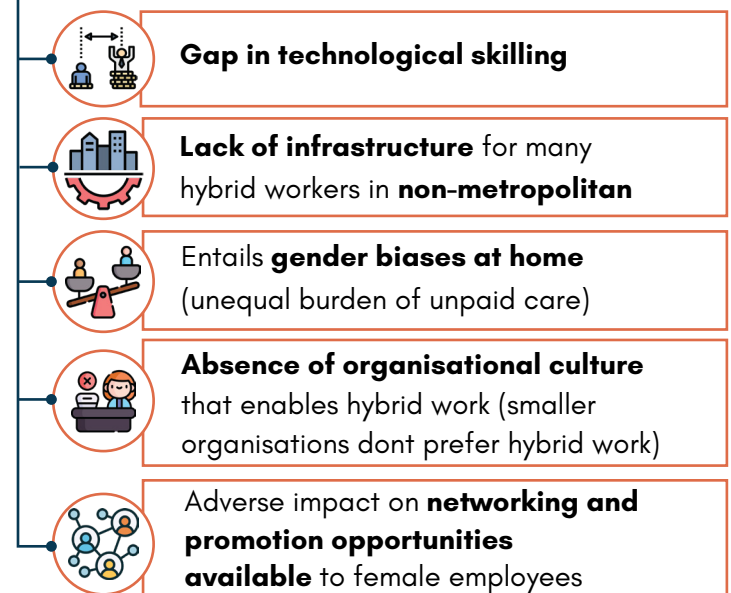- **Advantages of hybrid working models for women**
  - Improvement in recruitment and retention, by **addressing barriers such as lack of safety, poor mobility, and care burdens.**
  - Provides women **more autonomy in how they use their time** as compared to in-person working models.
  - It could also lead to **improvement in personal finances** due a drop in expenditure on the commute and other expenses.

KEY CHALLENGES FOR WOMEN IN THE HYBRID WORK MODEL

- **Gap in technological skilling**
- **Lack of infrastructure** for many hybrid workers in **non-metropolitan**
- Entails **gender biases at home** (unequal burden of unpaid care)
- **Absence of organisational culture** that enables hybrid work (smaller organisations dont prefer hybrid work)
- Adverse impact on **networking and promotion opportunities available** to female employees

- **Way ahead: Bridging data gaps, building use cases for hybrid work** across industries and **geographies and creating enabling policies** for **equitable participation** in the workforce.

ETHICS IN FUTURE OF WORK

- From **Adam Smith** to **Karl Marx** ethicists and political theorists have tried to envision **better workplaces that respect human dignity support employee participation** in workplace governance and align with ethical values.

- It might be fair to say that any business ethics research that is concerned about **employee well-being is focused on making the future of work better than the present.**

- **Some of the ethical concerns with respect to future of work are as follow**

  > **Automation and AI:** It is possible that the jobs people lose to technology will be ones that were meaningful to them, making it **difficult to move on in a world without work.**

    ■ **As long as human work remains,** however, **technology will influence the freedom and autonomy** that have the potential to make work worth doing.

    ■ Already, **algorithmic decision-making** about human resources and the **technological monitoring of employee activity** are seen to **infringe upon employee autonomy,** a potential invasion of the right to privacy as well as a critical element of the experience of meaningful work.
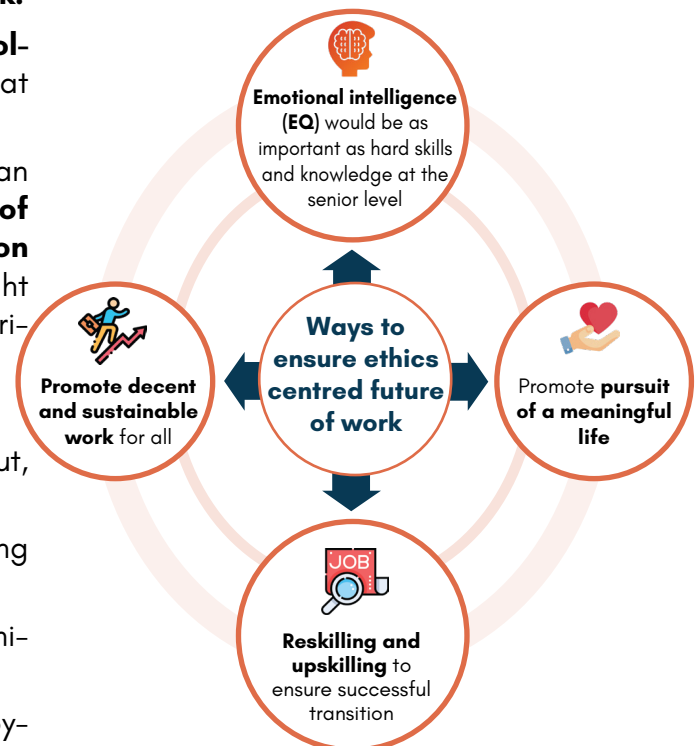
  > **Social/demographic:**

    ■ Issues affecting **individual workers,** such as burnout, work-nonwork conflict;

    ■ Attention to broader **societal imperatives** including corporate social responsibility;

    ■ Issues affecting **vulnerable workers,** such as immigrants, minorities, and older workers;

  > **Economical issues** like wage inequality, unemployment, and job precarity.

Emotional intelligence (EQ) would be as important as hard skills and knowledge at the senior level

Ways to ensure ethics centred future of work

Promote decent and sustainable work for all

Promote **pursuit of a meaningful life**

Reskilling and upskilling to ensure successful transition

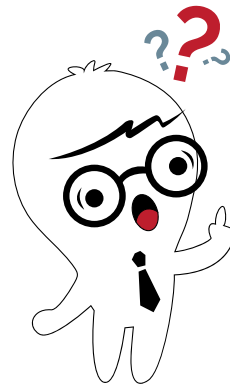# WHAT KEY INITIATIVES HAVE BEEN TAKEN TO SUCCESSFULLY NAVIGATE THE FUTURE OF WORK?

- **Code on Social Security, 2020:** It provides for framing of **suitable social security schemes for gig workers and platform workers** on matters relating to life and disability cover, accident insurance, health and maternity benefits, old age protection, etc.

- **National Education Policy (NEP) 2020:** It is a comprehensive policy framework that aims to reform and revitalize the education system in India. It emphasizes the importance of **equitable and inclusive education.**

  > It also promotes the **use of technology, innovation, and education research.**

- **Bridging the digital gap**

  > **E-pathshala:** This initiative allows the students, especially in rural areas to avail themselves of access to a plethora of study materials.

  > **Digital India Campaign:** It strives for transforming India into a digitally empowered country with the **advanced technological accessibility.**

- **Service Centers:** Establishing advanced infrastructure by the Government of India allows the population to experience digital reach, even from unreachable areas.
- **Optical Fibre Network:** This initiative allows the population of India to ensure faster broadband connectivity.

- **Skill development**
  - **Responsible AI for Youth** – It is a national program enabling **government school students** pan India to become AI Ready.
    - It was launched by **Ministry of Electronics & Information Technology (MeitY)** in collaboration with **Intel India.**
  - **'YUVAi- Youth for Unnati and Vikas with AI' program:** It aims to **equip school students** from classes 8 to 12 across the nation to become **human-centric designers and users of AI.**
    - It was launched by **MeitY** in collaboration with **Intel India.**
  - **Skill Indian Mission:** It focuses on skilling, re-skilling and up-skilling through short term and long term training programmes.
  - **Skill India Digital:** It is a **citizen-centric platform** by National Skill Development Corporation (NSDC).
    - It aims to **bridge the gap between education, skills, and the world of work.**
  - **NSDC International:** It is dedicated to **making India the skill capital of the world.**
    - It offers specialized **training, job placement assistance, visa and passport assistance, funding and post-placement support** for individuals seeking international employment opportunities.

WHAT NEEDS TO BE DONE FURTHER FOR PROSPEROUS FUTURE OF WORK?

- **New social contract:** There is a strong need to find a way for **tripartite consultations** (i.e. involving the employer, the employee and the state) on the future of work (both in the country of residence and the beneficiary country).
  - **Modern technologies and new approaches** such as collective intelligence could help in this regard.
- **Creating inclusive workplaces:** Decent work **agenda** for a digital future, generate **sufficient decent jobs** with better wages, security, protections and safety, necessary for improving individual and household welfare and well-being.

> **DO YOU KNOW?**
> The Decent Work Agenda of the **International Labour Organization (ILO)** strives to promote **decent and productive work** for women and men **in conditions of freedom, equity, security and human dignity.**

  - **Ensure equal opportunities for women, youth and other marginalised** communities previously unable to participate equally in the paid economy.
- **A culture of lifelong learning** (refer infographics for skills required for future of work): Ensure youth are equipped with the right type of skills **to successfully navigate through an ever-changing, technology-rich work environment.**
  - Give all workers the opportunity to continuously maintain their skills, upskill and/or reskill throughout their working lives.
- **Informed decision making: Studying global risks and their mitigation** must be given attention rather than remain a fringe academic activity.
- **Participative decision making:** Promote new forms of social dialogue which allow tailored solutions to new challenges to emerge at the firm-level.
  - Also, there is a need of **strengthening the voice of those workers** who are increasingly working independently and separated by distance, language and legal context.

- **Robust digital systems:** As the world is going digital, strengthening capacity in areas like **cybersecurity and personal data protection** has become more important than ever.

  - Adoption of cloud technologies can help organisations become **more resilient and competitive,** even in sectors like manufacturing, architecture, construction, and engineering that require the physical presence of workers.

- **Targeted programmes for employers:** Such programmes should support businesses in their digital transformation and help close the digital gaps and adapt to new work modalities.

  - New programmes must also support **governments in testing new work models** and in gradually moving away from being perceived as a 'leviathan'.

- **Achieving 2030 Agenda:** The 2030 Declaration does not mention the term Future of Work as such. However, the **2030 Agenda and the Future of Work are symbiotic processes** in that they are attempting to map challenges and solutions in a similar time horizon (refer to the infographics).

SKILLS REQUIRED FOR FUTURE OF WORK

COGNITIVE

CRITICAL THINKING
- Structured problem solving
- Logical reasoning
- Understanding biases
- Seeking relevant information

PLANNING AND WAYS OF WORKING
- Work-plan development
- Time management and prioritization
- Agile thinking

COMMUNICATION
- Storytelling and public speaking
- Asking the right questions
- Synthesizing messages
- Active listening

MENTAL FLEXIBILITY
- Creativity and imagination
- Translating knowledge to different contexts
- Adaptability
- Ability to learn

INTERPERSONAL

MOBILIZING SYSTEMS
- Role modeling
- Win-win negotiations
- Crafting an inspiring vision
- Organizational awareness

DEVELOPING RELATIONSHIPS
- Empathy
- Inspiring trust
- Humility
- Sociability

TEAMWORK EFFECTIVENESS
- Fostering inclusiveness
- Motivating different personalities
- Resolving conflicts
- Collaboration
- Empowering

SELF-LEADERSHIP

SELF-AWARENESS AND SELF-MANAGEMENT
- Understanding own emotions and triggers
- Self-control and regulation
- Understanding own strengths
- Integrity
- Self-motivation and wellness
- Self-confidence

ENTREPRENEURSHIP
- Courage and risk-taking
- Driving change and innovation
- Energy, passion, and optimism
- Breaking orthodoxies

GOALS ACHIEVEMENT
- Ownership and decisiveness
- Achievement orientation
- Grit and persistence
- Coping with uncertainty
- Self-development

DIGITAL

DIGITAL FLUENCY AND CITIZENSHIP
- Digital literacy
- Digital learning
- Digital collaboration
- Digital ethics

SOFTWARE USE AND DEVELOPMENT
- Data analysis and statistics
- Programming literacy
- Computational and algorithmic thinking

UNDERSTANDING DIGITAL SYSTEMS
- Data literacy
- Smart systems
- Cybersecurity literacy
- Tech translation and enablement

WORLD OF WORK

- Partnership for the Goals — 17
- 16
- No Poverty — 1
- Good Health and Well-Being
- 3
- Quality Education — 4
- Peace and Justice
- Gender Equality — 5
- Climate Action — 13
- Decent Work and Economic Growth — 8
- Responsible Consumption
- Reduced Inequalities — 10

CONCLUSION

People at large are not opposed to new technology but obviously remain concerned about their jobs in the future and whether they can cope with the changing times. Continued access to lifelong learning is critical, with technology impacting the tasks that workers do and thereby creating a continuous need for workers to be able to upgrade their skills.

TOPIC AT A GLANCE

THE FUTURE OF WORK: ADAPTING TO CHANGING LANDSCAPES AND EMERGING TREND

- There's **no one-size-fits-all definition** of the future of work today as our **perception of the future** for employers and their employees **constantly changes.**
- **Nature of work, workforce and workplace** are the **core components** of the future of work.

FACTORS DRIVING THE FUTURE OF WORK

- **Demographic change** like the decline of the working-age population in developed countries and a growing workforce in the developing countries.
- **De-globalisation** where in global trade that offers the comparative advantage has been slipping **since 2012.**
- **Environmental degradation** and efforts to **environmental sustainability** will profoundly shape the future of work.
- Potential reduction in **government jobs.**
- **Rise of alternative workforce** raises issues about **evolving a new social contract.**
- **Entrepreneurial ecosystem** and rise of **'zebra start-ups',** emergence of **social enterprise, Customer centric services,** etc.

KEY INITIATIVES TAKEN TO SUCCESSFULLY NAVIGATE THE FUTURE OF WORK

- **Code on Social Security, 2020** provides for **suitable social security schemes for gig workers and platform workers.**
- **National Education Policy (NEP) 2020 to reform and revitalize** Indian education system and to promote the **use of technology, innovation, and education research.**
- **Bridging the digital gap** through initiatives like E-pathshala, Digital India Campaign, Service Centers, and Optical Fibre Network.
- **Skill development** initiatves including **Responsible AI for Youth, 'YUVAi, Skill Indian Mission,** Skill India Digital, and NSDC International among others.

CHALLENGES IN ENSURING A HUMAN CENTRIC FUTURE OF WORK

- **Government regulation** may become **outdated** and ineffective.
- **Skill gap may widen due to** Automation.
- Relevance of education due to **rising importance of emotional intelligence (EQ).**
- **Issues faced by employees** related to income security, social protection, mental health etc.
- **Potential to reinforce the existing inequalities** due to low-wages, adoption of technologies, etc.
- **Digital divide, Relevance of public sector and services** which are hierarchical in nature, etc.

WAY AHEAD FOR PROSPEROUS FUTURE OF WORK

- **New social contract** on the future of work facilitated by **modern technologies and new approaches.**
- **Creating inclusive workplaces** through Decent work agenda for a digital future, **ensure equal opportunities for women, youth and other marginalised** communities.
- **A culture of lifelong learning** to successfully navigate through an ever-changing, technology-rich work environment.
- **Participative and informed decision making** for tailored solutions to new challenges to emerge at the firm-level.
- Ensuring **cybersecurity and personal data protection.**
- **Targeted programmes for employers** to support their **digital transformation.**
- **Achieving 2030 Agenda** which is attempting to map future challenges and solutions.