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What do we do when machines do everything?

1. India's Employment Crisis: A Dual Challenge

Visible Employment Crisis – Youth at the Centre

- India is experiencing a significant, measurable employment crisis that is particularly **youth-centric**.

- Over **80% of India's unemployed population** comprises **young individuals**, primarily those who have completed **secondary or higher education**.

- Around **one in every three youth** is **disconnected from both employment and education**, indicating a lack of engagement or opportunity.

- By **2030**, India needs to generate **90 million new jobs**, many in emerging or currently unknown sectors, demanding urgent policy and skill interventions.

Invisible Employment Crisis – Technology-Led Structural Shift

- Beyond the visible numbers, there is a deeper, less quantifiable **invisible crisis** stemming from the **changing nature of work**.

- With **AI, automation, and data systems** penetrating all sectors, every worker now faces the **risk of job redundancy**, regardless of their skill level.

- Unlike earlier technological revolutions which affected mainly **low-skill jobs**, the current wave affects even **highly skilled professionals** including lawyers, journalists, and software developers.

2. Unique Nature of Technological Disruption

Top-Down and Bottom-Up Impact

- Today's disruption is **unprecedented in scale**, affecting workers from **manual labourers** to **creative and analytical professionals**.

- **Generative AI** and intelligent systems have blurred the lines between **creative and technical roles**, raising doubts about which jobs are truly irreplaceable.

- This dynamic forces a **continuous self-assessment** of individual **relevance and adaptability** in the labour market.

3. The Growing Importance of Foundational Literacies

Tech Literacy and Data Literacy as Core Competencies

- Two critical skills have emerged as **foundational** in the digital economy:

    - **Technology Literacy**: Ability to understand, operate, and interact with digital tools and systems.

    - **Data Literacy**: Capacity to interpret, analyze, and utilize data for informed decision-making.

- These are building blocks for **AI literacy**, which is vital for success in both tech and non-tech fields.

- These literacies must be **integrated across all levels of education**, from school through professional careers.

4. Joseph Aoun's Humanics Framework – A New Learning Model

Three Pillars of Future-Ready Education

- Proposed by educationist **Joseph Aoun**, the **Humanics Framework** provides a holistic blueprint for modern learning:

    1. **Technical Ability** – Understanding and collaborating with machines and AI systems.

    2. **Data Discipline** – Analytical thinking, evidence-based reasoning using data.

    3. **Human Discipline** – Skills like **empathy, creativity, moral judgment**, and contextual understanding.

- This model urges a shift from **rote learning to experiential and interdisciplinary learning**, promoting **lifelong education** as a norm.

5. Micro-Credentials – Tools for Lifelong, Modular Learning

Flexible Learning Beyond Traditional Degrees

- **Micro-credentials** are short, focused, stackable courses that address specific skills or knowledge areas.

- These allow workers and students to **regularly update and expand** their skill sets in response to evolving industry needs.

- Universities globally are embedding micro-credentials into their **mainstream curriculum**, not just in STEM, but also in **humanities, business, and public policy**.

- For India, adopting micro-credentials can **dismantle rigid degree-based structures** and promote **continuous, flexible learning**.

6. Reimagining the Indian Education System

Moving From Rigidity to Flexibility

- India's current education system needs reform to promote:

    - **Student agency** (self-directed learning)

    - **Adaptability** to future job markets

    - **Equity**, especially for marginalized groups.

- Key steps include:

    - **Integrating tech and data literacy** in school curricula.

    - **Training teachers** to impart future-ready, interdisciplinary skills.

    - **Mainstreaming micro-credentials** as part of higher education.

    - Fostering **interdisciplinary education** that combines arts, sciences, and vocational training.

7. Conclusion: Transforming the Workforce for the Future

Addressing Both Aspects of the Crisis

- The employment challenge in India is **twofold**: a **visible shortfall of jobs** and an **invisible threat** from rapid technological evolution.

- The aim should not be limited to creating more **engineers or coders**, but to foster a generation of:

    - **Agile thinkers**

    - **Creative problem-solvers**

    - **Emotionally intelligent leaders**

- By building a culture of **lifelong learning**, **tech fluency**, and **human-centric skills**, India can empower its youth to **lead in an uncertain but opportunity-rich future**.

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