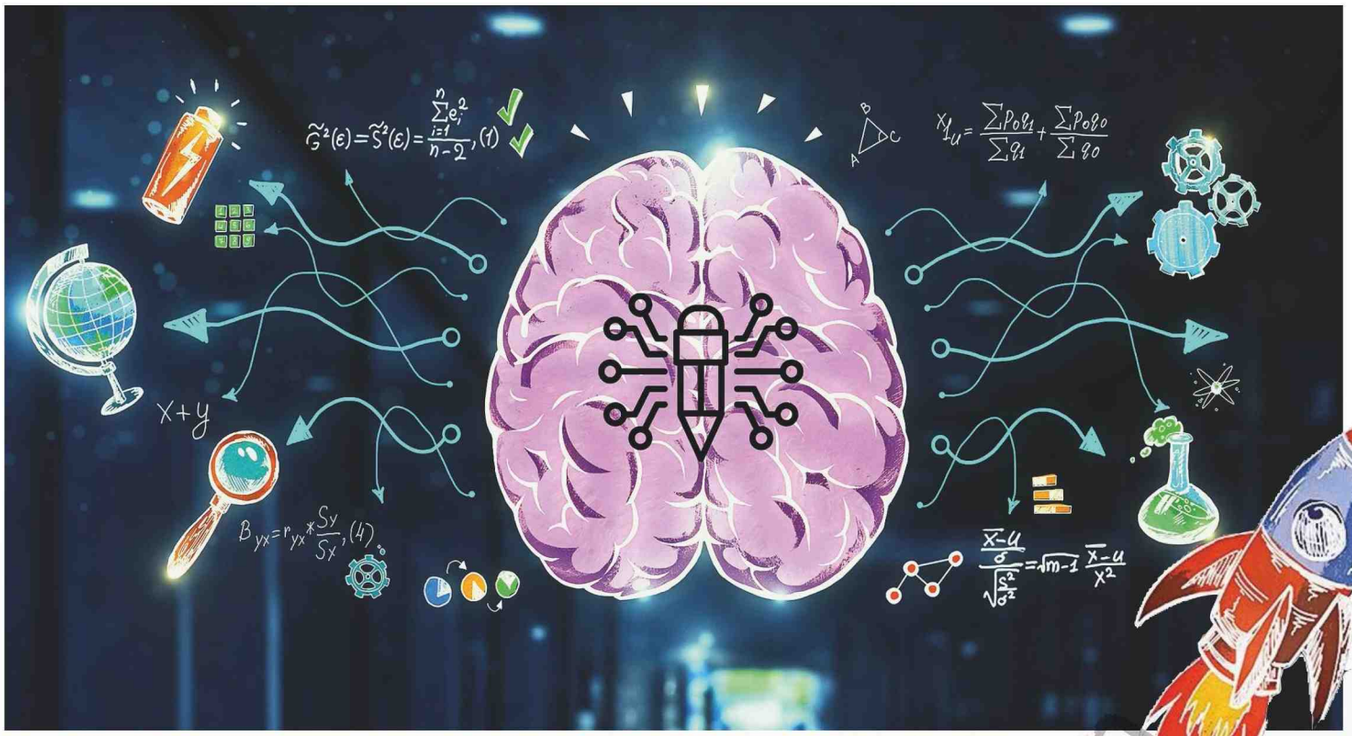
Universities must embed digital fluency to make students industry ready

India must shift its metrics from patents and publications to prototypes, products, and startups that drive cross-sector ideas, writes Ajay Kela



The future is not about AI replacing humans, but about augmenting human potential. As technology reshapes industries, resilient jobs will combine digital fluency with human ingenuity. By boosting productivity and innovation, AI will significantly enhance roles that rely on information processing, creativity, and decision support, such as software developers, marketers, analysts, and customer service professionals. In contrast, jobs rooted in physical presence, human empathy, and complex real-world judgment, like skilled trades, healthcare, and caregiving, are far less likely to be impacted.

Practical Applications

To prepare students to be industry-ready, universities must embed digital fluency across all disciplines. This means teaching students how to use, question, and collaborate with digital and AI tools. Curricula should emphasise practical applications of digital technologies, responsible use, and their impact on society, while cultivating critical human strengths like creativity, ethics, and problem-solving. By combining technical understanding with real-world exposure through industry partnerships, universities can equip students to work alongside new-age technologies, not be replaced by them.

Catalysing Change

To accelerate India's innovation and research translation ecosystem, philanthropy and CSR activities are critical in bridging the gap between research and real-world impact. Strategic philanthropy can act as the 'first believer'—funding transformative ideas that are too early or risky for commercial investment. It enables the creation of translational research infrastructure, supports innovation platforms, and provides flexible capital for high-impact areas like space technology, climate solutions, and public health. CSR, too, can evolve from a compliance-driven model to one of co-creation, aligning with national R&D priorities to build shared value and drive systemic change. For India to emerge as a global innovation leader, it must strengthen its research-to-market pipeline, and philanthropy and CSR can catalyse that transformation.

(The author is president & CEO, Wadhwani Foundation)

Translating Academic Research

India has world-class research talent, but a significant commercialisation gap remains. Bridging this requires a multipronged, systemic approach for which the following strategies can be implemented:

1. Incentivise researchers with clear IP ownership, revenue-sharing models, and recognition for commercialisation outcomes
2. Build robust technology transfer offices on campuses to manage IP, forge industry linkages, and guide licensing pathways
3. Establish on-campus incubators that provide technical, business, and regulatory support to help researchers move from ideas to market
4. Mobilise translational funding and philanthropic capital to support early- and mid-stage innovations before they attract venture investment

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Deep Tech Potential

1. Aligned with Viksit Bharat@2047 vision, the Wadhwani Foundation invests Rs 1400 crore to bridge the gap between research and commercialisation and unlock India's deep tech potential. Our strategy is anchored on four key pillars:
   - Establishing SuperHubs in priority tech areas such as AI, biosciences, biotech, and health, each supporting 50+ research institutes
   - Building a national network of Innovation Centers of Excellence (CoEs) to translate late-stage research into real-world outcomes
   - Identifying and funding high-potential research-to-market projects, ensuring equitable access and co-investment from partners

2. **Entrepreneurial Promotion:** Equipping researchers with the tools, training, and mentorship to build and scale ventures from within academia
3. **Co-investment Models:** Blending philanthropic, public, and private capital to create sustainable pathways for innovation to reach market scale
4. **Outcome Orientation:** Prioritising innovations that lead to startups, job creation, and global competitiveness

The aim is to help shift India's role from being a knowledge creator to a global solution provider