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Up-skilling, Re-skilling, Cross-skilling
New success mantra for the IT Industry

Many IT and software services companies are aspired to shift their focus to forward looking technologies like, Artificial intelligence, Machine Learning, Blockchain, Data Analytics, DevOps, ML-Ops, cybersecurity etc. During Pandemic IT professionals were exposed to thousands of online courses and many found time (perhaps saved from commute to work) to skill themself into new dimensions of their career.

Welcome to new World

Empower IT students and transform India to global developer powerhouse

Consider a likely scenario of IT educated home in India. A CSBE student is learning Python from his 11th grade Python textbook, whereas his elder sister, in final year of the BE Computer Engineering, is also learning Python, which is still an optional subject in many Universities. And Interesting their dad, a veteran in IT industry would have purchased Python / Data Science Course from some online portal. All three of them are on similar journey with different starting point. One thing is sure, the world of IT is almost removing the learning barriers   across generations. What used to be considered as a premium skill (learning computer language such as Python), is going to be basic necessity for any child in middle school, just like learning Hindi, or French or Spanish as a new language.

Overall, India is transitioning to services and knowledge-based economy, with spoken English skills becoming the minimum requirement for an entry-level position.

While there are growing opportunities, we must be cognizant of the current youth unemployability rate in India. This alarming statistic points to a grim reality – young Indians do not have the required skill set to succeed in the workplace (including in IT sector). It may force current education system to introspect and have a fresh look at the need of the industry. Young professionals also lack essential communication skills to express their simple ideas or have effective conversations with customers, colleagues, and management.

Following table describes some of the highly sought-after domains and number of open positions (skill gap) in various countries.

Skill Gap Matrix (by 2020-21)

Country	Skill Gap Domains	Number #
USA	Data and IT skills	250,000
India	Cyber-Security	1,000,000
India	Data Science	150,000
France	ICT Professional	90,000
UK	Digital technology related	400,000

Various Source: Internet

What's ahead. Words that we are hearing more often, and many companies are paying increasing attention to – are '**Re**Skill' and '**Up**skill.' It's important that employees remain vigilant about developing their existing skills in addition to learning new ones. To properly incorporate the qualities of reskilling and upskilling, it is essential to have '**Growth Mindset**' The ability to reskill and upskill means that we increase our value and relevance, and in turn, contribute more positively to the employer.

Reskilling

Many IT services companies are reskilling their employees to reduce the time they spend on the bench waiting for the next client project. They are shifting their focus to new-age technologies like data analytics, artificial intelligence and cybersecurity (particularly cloud security has seen significant demand during the Pandemic), which has brought on the need for newer skill sets, particularly when some companies have hiring freeze.

Also management staff had more time to think about how to sustain and grow companies post pandemic. They also need new set of skills such as managing virtual or hybrid teams, lease vs own vs WFH impact on financials of the company, protect IP of the company and clients while constantly look for ways to motivate remote employees to remain productive.

Upskilling

Companies are finding that upskill their existing staff is lot more cost effective, instead of hiring more for similar skill segments. Any hiring remote staff has it's own challenges.

We captured the growth potential of online education market in following table, which talked about growth of online /remote education , supplementing the traditional in-person education. It also opens up many opportunity to upskill, which could happen at own pace and at own home and own time (say very busy system admin want to upskill the DevOps knowledge at his/her convenience from 10 pm to 11.30 pm and Sunday morning).

India's Education Segment	Key Influencers	CAGR (2019-2024)	Market Size in 2024 (Approx.)
India Online education Market	Ease of learning, Flexibility, Choice of material	44%	360 billion INR
The online skilling and certification	Rapid introduction of new tech and widening Skill gap	37%	94 billion INR
Online Primary secondary supplemental education	Better internet connections, demand from Tier 2|3 cities	46%	124 billion INR
Online higher education market	Lack of traditional options in rural market	41%	41 billion INR

Source of Raw Data: Research and Market

Many of our clients shifted their 'continuing training classroom venue' to 'instructor led virtual classroom', using custom platform or generic platforms like Zoom, M-teams, G-Meet.

Cross-Skill

World is the fusion of tightly interlinked economies, which is very evident from Pandemic. Covid-19 is a LIVE use case of how efficiently(!) it can travel in the integrated globe. Evolving business models of shared economies (like Uber) have essentially transferred the World is the fusion of tightly interlinked economies, which is very evident from Pandemic. Covid-19 is a LIVE use case of how efficiently(!) it can travel in the integrated globe. Evolving business models of shared economies (like Uber) have essentially transferred the business control from traditional fleet owners to software powerhouses. Many such innovative ideas emerges when cross department employees work closely with each other.

Many successful businesses have effectively leveraged cross organization knowledge transfer to support their vision and growth.   When Mid-level managers and employees have a deeper understanding of what their company does, then it bring the sense of ownership and enable them to make decisions and recommendations which otherwise limited to upper management who may not be fully aware of ground level inefficiencies. To make this happen cross-skilling can play a vital role.

Even in individual professional's career, beyond certain time singular job functions won't be effective. Fresh air in terms of fresh inputs/data points are required. For the star performers to remain motivated and innovatively productive, they prefer to remain on edges – away from cozy comfort zone. Cross-skilling is one of the effective way to achieve this. Cross-functional skills also offer opportunity to develop understanding of all other areas of the business, their goals, methodology and requirements.

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Summary

In conclusion, We anticipate that many IT companies and IT professionals will continue to experiment with {Re|Up|Cross}-skilling in coming years and industry will continue to find innovative business models emerging from this. Folks who are complaining of Artificial intelligence to take over their jobs, should understand that this is nothing new. For example, Driverless Trucks (actually Driverless trucks seems to have more promising business case than Driverless cars) are being trained by "Truckers" who have spent most part of their life on the highways. They work hand in hand with AI/ML software engineers to train the trucks to make informed decisions. Historically it has been observed that innovations are followed by new set of job opportunities, where companies and its employees must be ready to adapt and transform themselves to new common, aided by new skills.

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