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A Netflix insight into India's skills shortage

R. Srinivasan | Updated on October 27, 2021

With our colleges churning out unemployable graduates, perhaps it is time to shift the skilling focus to schools

I first came across the term *'Satori'* – a Japanese term variably translated as enlightenment or sudden awakening – when I read Jack Kerouac's 'Satori in Paris' years ago. The book describes Kerouac's trip to Paris and Brittany in search of his ancestry (he was an American of French Canadian descent).

The book itself is not one of Kerouac's best, dealing mostly with Kerouac's experiments with alcohol across many Parisian and Breton bars, interspersed with travel disasters like missed flights and wrong connections. But all is not lost in alcoholic fog. Kerouac writes: "Somewhere during my ten days in Paris (and Brittany) I received an illumination of some kind that seems to've changed me again, towards what I suppose'll be my pattern for another seven years or more: in effect, a satori."

I had such a satori moment while watching an eminently forgettable SF show on Netflix called *Another Life*. It is that standard take on 'first contact' (inscrutable, omnipotent aliens, struggling humans, clueless military et al) but it had one interesting plot twist. Humanity's only interstellar ship is

despatched to a star system 96 light years away to the home system of the aliens – and the crew, with the exception of the captain, are all millennials.

Why trust a bunch of 20-year-olds with humanity's future? The idea was that hyper-trained men and women in the peak of their adult lives – the standard template for fearless space travellers thus far – would be too bound by their training, and too slow in their reactions, to deal with the great unknowns of both interstellar travel as well as first contact with aliens. Millennials, on the other hand, VUCA-world natives, would be more receptive, as well as adaptive to the unexpected challenges ahead.

An interesting premise, even if the execution was awful, but this is not about the show. Rather, it is about India's growing skills shortage, particularly in the higher end of the IT-ITeS sector, which is expected to drive the growth and development of all other parts of the economy as well.

Much has been written about India's skills shortage, particularly in the IT sector. A recent report by Amazon Web Services estimated that the number of digitally skilled workers in India will have to increase ninefold by 2025.

The report also said that even those already in the sector – and therefore having digital skills – will have to acquire seven new digital skills in niche technologies by 2025 to keep up with demand.

IT under the cosh

The lack of skills is seriously impacting the IT sector's competitiveness. The IT Industry sees the talent shortage as the most significant adoption barrier to 64 per cent of emerging technologies, compared with just 4 per cent in 2020, according to a new survey from Gartner released last month.

The IT sector knows it is staring down the barrel of a gun. According to an estimate by the sector's apex body, Nasscom, India's demand for digital talent jobs is currently eight times the available fresh talent pool.

By 2024, as the economy shrugs off the Covid setback and moves into high trajectory growth, the demand for new digital talent is expected to be 20 times the available talent pool. The biggest demand for new skills will come from the new cutting edge areas – artificial intelligence, big data analytics, Internet of Things, cloud computing, cybersecurity, blockchain, AR/VR, Robotics and 3D printing. While demand is rising exponentially in these areas, the supply is not. Nasscom estimates that India will need 2 million cloud computing specialists alone by 2024.

This year alone, demand for big data analytics and AI computing skills outstripped supply by nearly seven times, according to some estimates, leading to the IT sector reporting the biggest pay hikes in a pandemic hit year when other industries were actively reducing headcounts.

As I had written earlier, this means that many smaller IT firms and start-ups are already being edged out of the talent market by rising manpower costs.

Other sectors like blockchain or AR/VR may not need such huge numbers but are growing at CAGRs of over 30 per cent per year. But industry insiders estimate that of the eight million graduates that India is producing every year, at best 50-60,000 are emerging with these so-called 'future skills'.

Such an enormous mismatch cannot be bridged even by heroic reskilling/upskilling efforts by the industry.

The technical education sector is already way behind in meeting even the existing demand – not in numbers but in skills, since almost two out of three of our technical graduates being actually unemployable. Other than in a handful of elite institutions, most of our engineering schools lack the faculty which can teach these future skills.

Which brings me to the satori moment – millennials and Gen Zs!

Let me explain. Given the warp speed at which technology is changing – and skills demand with it – it is impossible to expect the existing system to churn out anything close to the requisite number of trained people. Upskilling of existing talent will be also too slow, with adaptability exponentially falling as one goes up the age curve.

Tapping at schools

The solution would be to radically rethink our education system and look to producing future-skilled talent at the school level, not at the post-degree stage.

These youngsters, trained in the new age technologies from a young age, will actually be veterans by the time they hit the current millennial age-group of twenty-something. And like the millennial crew in *Another Life*, prove to be the best bet for producing, not only a future-ready, but future-proof workforce.

Sounds far fetched? Companies like BeSingular, founded by Harvard alum Nitesh Jain, are already offering courses in cutting edge areas like AI, Text & Visual Based Scripting, Robotics, Game Design, Internet of Things (IoT), Drones, 3D printing and AR/VR – to six to 18 year olds!

"The current school curricula simply don't cater to future needs. We feel that introducing these skills at the school stage is best for producing market ready skilled workforce," says Jain, explaining his K-12 bet. Jain's courses are heavily influenced by Germany, which has become one of the first countries in the world to develop a formal training and skilling curriculum at the school level in new-age digital skills.

Instead of squabbling about who did what during the freedom struggle, or rewriting text books to impart "Indian culture and values", our education mandarins might be better advised on how to prepare our kids to face the shockwave of technological that's coming at them!

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COMMENTS