

## Leading by Example and Giving Back to Society



N.R. Narayana Murthy, the founder and former Chairman of Infosys, a global provider of next-generation digital services and consulting, speaks with Havovi Joshi about the Indian growth story, digitalisation, and his leadership philosophy.

**You once said, “Let us build an India where every child has access to education, healthcare, and opportunity.” How has India fared in achieving this goal?**

India is currently the fastest growing country among the top 20 economies in the world, and the government has done a good job of encouraging economic growth. My statement echoes the vision of the founding fathers of our country. They fought for our freedom to ensure that the poorest children in the remotest village have decent access to education, healthcare, nutrition, and shelter, and hope for a better quality of life for themselves and their progenies. Therefore, this clarion call of our founding fathers is a very important action item for the entire country. Given that we are a 1.4-billion-people country and rank low on the United Nations (UN) Human Development Index, there is work cut out for us. We must bring the impact of economic growth not just to urban India where it is very visible, but also to the remotest parts of our country. We can do this by

creating jobs for our semi-literate and illiterate Indians who live mainly in rural India. India’s literacy rate is about 75 percent, and we have about 20 percent of semi-literate people, so it is fair to say that we have over 500 million people who must be provided with jobs that do not require a college education. We should learn from other countries that have managed this well, particularly China.

We must focus on rural India and provide it with good infrastructure for corporations and businesses to create quality jobs that offer an adequate income. Also, we must bring rural India into the mainstream of our economic progress. That is a vision every single Indian should embrace. Our youth, especially those who are educated, are our biggest asset. They are the ones who can lead India to become a nation that has better equality, opportunity, prosperity, and a robust rate of economic expansion for everyone.

For India to become a prosperous country for every citizen, our economic growth must also come from rural India, from the weaker sections of our society, from those who are not literate, and from every section of society, including all religions, castes, and economic classes.

**How have the Infosys Science Foundation and the Infosys Prize been instrumental in enabling educational and research investment, and shining the spotlight on Indian scholars?**

When we established the Infosys Foundation in 1996 and the Infosys Science Foundation in 2009, we were addressing two important needs of our country. Infosys Foundation primarily focuses on the problems of the ‘here-and-now’. So far, it has set up about 75,000 libraries in rural India. At the same time, it has built hospitals in several parts of the country and donated equipment to them. It has further contributed to the work of the Akshaya Patra Foundation in providing quality midday meals to 2.3 million school children every school day, and offered scholarships to children who attend government schools.

On the other hand, looking ahead, we believe that the hopes and dreams of our country to become a developed one will only be achieved if India embraces higher education and research. We realised that one way of encouraging that was to identify role models in higher education and research. Therefore, we started the Infosys Prize which awards US\$100,000 annually to those who have excelled in each of the following six categories—Engineering and Computer Science, Humanities, Life Sciences, Mathematical Sciences, Physical Sciences, and Economics and Social Sciences. By doing so, we believe we would be creating role models in research for our youth to emulate. These role

models will be the leaders who can use the power of research and advanced knowledge to solve the grand challenges our country faces.

**As technologies mature, what was once innovative, such as generative Artificial Intelligence (AI), including ChatGPT, will one day become commoditised. How can organisations identify such turning points and wean themselves off as cutting-edge technology dulls away?**

I had thought about this problem as early as 1976-77 when I realised that the coming years would be full of challenges and opportunities. Our modern world is a rapidly changing one, and the only constant for us is change. Technology and business models change rapidly, and different countries grow fast at different points in time. As a result, there are always opportunities for a company like Infosys in various business domains in different parts of the world, in new technologies, and in new businesses.

We realised that the best way to succeed in such a fast-changing world is to embrace what I term ‘learnability’. To me, learnability is the ability to extract generic inferences from specific instances and use those learnings to solve new unstructured problems. Thus, every candidate who applies to Infosys for a job must first clear the learnability test, which is primarily a set of puzzles, before advancing to the next stage in the recruitment process.

The second thing we realised was that innovation is the most important instrument to obtain, sustain, and enhance our market share. Dominant market share is achieved when a corporation offers products and services with a highly differentiated and not-easily-beatable business value. To do so on a sustainable basis is to leverage the power of continuous innovation. For us, the challenge was to make innovation a permanent feature of Infosys. We wanted to create an environment where everybody believed in innovation and wanted to be innovative. The mindset of innovation had to become part of the DNA of the organisation. It had to be from the janitor to the chairman of the company. To do this, we had to make everybody in the company understand what innovation was. Innovation, to me, is about seeking answers every day to the following three fundamental questions: How do I do whatever I am doing today faster tomorrow? How do I do whatever I am doing today cheaper tomorrow? And how do I do whatever I am doing today to deliver a higher level of quality, a greater level of comfort, a better level of user interface, and better value for money tomorrow?

To achieve this, we had to adopt new processes, improve the devices we use, and employ entirely new methods to get to the next level of cost reduction and improvement in business value, productivity, and quality. Our task was to ensure that there was an environment that encouraged everybody in the company to experiment, discuss, debate, and offer suggestions on how the corporation could improve. So at least 35 percent of the people in every strategic decision-making committee were less than 30 years old. The reason was very simple. Such people were going to spend a lot more time in the company than I would, because I am much older. Therefore, they would have a much bigger stake than me in making the company better.

I have also found that each generation of students, academics, and professionals happens to be much better than the previous one. Hence, to enable the staff to come up with new ideas and strategies, we created an environment where nobody was afraid of offering suggestions. At Infosys, we had a day called *Ideation Day* where only people below 30 years of age made presentations on how to make the company better. Meanwhile, we, the senior people, took the responsibility to evaluate and implement the suggestions that were accepted.

By doing some of these things, we embraced innovation and improved our productivity and quality, and offered value for money to our customers. I believe that is the best solution to embrace and benefit from the barrage of new technologies that come a corporation's way from time to time. At the end of the day, science is about unravelling nature, and technology is about using the power of science to make the lives of people better and more productive. This must simply be accepted, and corporate leaders must prepare their employees to use these fast-changing technologies without fear to make the corporation a better and more productive place.

### What do you think will replace digital transformation as the next big growth engine?

As an engineer, I feel that the Internet of Things (IoT), AI, Big Data, robotics, and machine learning will play a very important role in the future. AI and machine learning are developing very fast, but Big Data and IoT have not been progressing as quickly as I would have liked. The reasons are very clear. There is a large amount of data generated every day in every country, but we still have not put in place the infrastructure that is needed for collecting and storing Big Data, at least in the developing world. Some countries like the US, Singapore, and some European countries may have been successful in doing so, but this is not the case for every country. It is only when every country in the world understands the power of Big Data

and machine learning, and creates suitable infrastructure for them, will we have the ability and infrastructure to collect more data and tap its full potential, because once you have the data, you can then analyse it using machine learning and deep learning. And that is when you can use supervised algorithms, unsupervised algorithms, and semi-supervised algorithms to leverage the power of AI.

But the bigger challenge we have is to tap into the power of IoT in our daily lives in fields like education, transportation, healthcare, manufacturing, public governance, and public and private services. For us to leverage the power of automation, we must enhance the use of digital process control in every country, which is a big challenge. Still, I am very excited about IoT and want it to become part of our lives, not just in developed countries, but throughout the world.

### What are some of the key global and regional trends and challenges that you are observing very closely?

The first trend that I have seen in the last 10 years is the issue of nationalism and of focusing less on globalisation. Earlier in the eighties and the nineties, globalisation was always on the front burner. Everybody in the boardrooms of large corporations extolled its virtues. However, there were two problems with the rapid growth of globalisation. Some extraordinarily competitive countries like China built up huge trade surpluses. This made some developed nations unhappy with these high-growth countries that were not buying enough from the developed world, and only exporting more and more. So, the inability to maintain a desirable trade balance between nations led to the rise of nationalism. The second issue is that in many parts of the world, especially in emerging markets where there are large countries with huge populations like those in South Asia, Africa, and South America, globalisation has not improved the lives of most of the rural and poorer people. As a result, politicians began to wonder whether globalisation is indeed the solution for a better and more prosperous world for everybody.

There is also a tide of opinion in several boardrooms that despite having a well-intentioned institution like the UN and leaders all over the world professing the importance of peace and harmony, we have not been able to develop enduring solutions for regional conflicts. This has created a lot of tension amongst the poorer sections of each of these warring factions, and they are becoming desperate.

The third important change that has happened, thanks to the previous focus on globalisation, is that many developed countries have moved manufacturing to certain parts of the

world like East Asia and Southeast Asia, choosing instead to concentrate on high-end services and precision manufacturing. But there are only so many jobs that you can create with such a strategy, so this has created a huge disparity between the well-to-do and well-educated professionals on the one hand, and the lower-middle class and the poor people who worked in manufacturing and services on the other hand. This tension has created distrust and a certain amount of unspoken hostility among the lower-middle class and the poor people in the developed world.

Therefore, in my opinion, nationalism, dissatisfaction with globalisation, the inability to bring peace and harmony to warring factions in different parts of the world, and the gradual erosion of the middle class in developed nations are some of the key challenges we face. In addition, there is the issue of economic cycles. Every nation goes through ups and downs in its economy periodically. For example, Europe is experiencing high inflation now. So is the US to some extent. This has created political turmoil, and these are the issues that we are discussing in various corporate and advisory boards that I am part of.

### As an experienced leader who has been through several crises, has your leadership philosophy changed over the years?

It has not. I have had the fortune of having parents and early teachers who helped me embrace time-invariant and context-invariant values. The first thing that was taught to me was what Mahatma Gandhi professed—that is, leadership by example in honesty, transparency, teamwork, hard work, fairness, discipline, and putting the interest of the nation ahead of one's personal interest. I believe that leadership by example is the most powerful instrument that a leader possesses to create trust in his or her people. Walking the talk is the essence of leadership. The late Singapore founding prime minister Lee Kuan Yew was another great example of leadership by example.

The second thing that I learned early on was to always seek respect from my stakeholders. It does not matter whether you are a student, professional, bureaucrat, corporate leader, or political leader. One has to learn to ask oneself before one makes a decision whether that decision would enhance respect for the leader from the people who will be impacted by his or her action.

The third thing that I was very fortunate to have learned from my parents is austerity. My father often told me that one must learn to enjoy the simple things in life because that is the best way to be happy, whether one has much money or not. He gave me three examples of how one could do so. The first

habit was reading. Newspapers, magazines, and books were available for free at the public library in every small town in India then. Second, listening to music was free in those days since music would be played on a loudspeaker daily for an hour or two in public parks. We did not have a radio at home then. Finally, he wanted me to make friends with people who had a good set of values—people from whom I could learn something valuable, with whom I could laugh. This is what I do even today. It does not cost much money to read, listen to music, and spend time with friends with good values. My mother used to say that we must live like a saint, think like a scholar, and act like a warrior.

So my leadership philosophy has not changed, because my values continue to be the same—leadership by example, good work ethic, discipline, transparency, accountability, honesty, putting the community's interest ahead of my personal interest, and fairness. Fairness is following the Golden Rule: "Do unto others what you would like them to do unto you". These values are time- and context-invariant.

### What advice would you have for the next generation and the youth entering the workforce today?

For this, I will use the example of Singapore. I would request the youth in Singapore to remember that this extraordinary achievement of becoming one of the wealthiest nations in the world happened because of its great leader—Lee Kuan Yew. Lee demonstrated high aspiration, intelligence, discipline, hard work, teamwork, honesty, and openness to learning from other countries and cultures. In addition, the ability to debate and disagree without being disagreeable is an attribute I would like the current generation of Singaporeans to continue to have.

I believe in what was taught to me by my high school teacher, who said that performance leads to recognition; recognition leads to respect; and respect leads to power. Therefore, you simply must continue to do your best in everything you do to be respected and economically powerful. 

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