Keynote Address by Mr. R. V. Shahi

- Former Power Secretary, Government of India

Photo credit: IUKAN Initiative (www.Iukan.in)

Mr. Shahi was chief guest and keynote speaker at our (February 2018) Industry Roundtable event in Delhi, on how AI & ML can enhance the Indian Energy Sector and help achieve broader national development goals.

After such a long an illustrious career, he spoke about a few themes. But chose to begin by weaving in some personal stories, around the theme of how India's marked generational divide between old and new remains a hinderance to its progress, both in the Energy Sector and more widely.

But far from any hand-wringing, he positively but candidly reframed the status quo as an opportunity to learn and grow. As a young company trying to bring inherently complex and fast-evolving technology knowledge to the sector, country, and world, this resonated with us very much, leaving an enduring sense of optimism.

- - The following is an edited transcript - -

Friends and colleagues. I have had the privilege of working with many of you. A large number of you are here from different organisations.

A few days back, Mr Kaushik (Climate Connect, Director of Business Development) *and Mr. Mehta* (Advisor to Climate Connect & Secretary General SAFEE) *met me to discuss this subject* [AI & ML] *and its applicability in the Energy Sector. Obviously, so far as working with data, the analysis of data, and computer systems, a whole range of technological developments have always been there. The only difference is that now things are moving very fast.*

When I was young, my mother asked,

"What moves fastest?"

Me and my sister said light, or sound, and she proved us wrong. Saying,

"It is the mind and thought which moves fastest"

If you think you are in the White House, then immediately you can be there, sat at a table or a chair in the White House. So thought moves fastest, just as our young generation moves faster than the old.

And it is a great thing that we have many retired people here, who have worked in various capacities in the Power and Energy Sector, alongside the youngsters, so that we can try to marry the two. It is difficult for the older generation to reconcile with many of the things that can happen and should happen.

In the middle of my career, one of the subjects we used to teach and learn, was management of the Intelligentsia. One the things we used to tell our senior people – the Heads of Department, General Managers – that things are changing fast, and it would require a great deal of skill, and a greater degree of understanding in how we manage the younger generation

We used ask them,

"if you do not know how to work with a laptop or a computer, and others do, is it a thing you should feel ashamed of? Is it a thing that you should avoid? Or is it a thing that you should encourage?"

Most of us working in various capacities needed to acquire, but failed to acquire that ability to accept that 'in certain areas my junior knows better than I know', and how to reconcile this. If we do not learn, and we do not accept, and we do not reconcile, then the loser becomes the organisation where we work. We will not get the best out of the team that we are supervising. We must understand that a team leader may not know as much detail as his juniors on a variety of subjects that each one is learning.

So as far as I am concerned, I tried to learn the art of telling people in a very straight forward way, that if ten of you are working with me, I know less about your subjects than each one of you knows. I know only a little bit of each of those subjects. That disclaimer takes care of that barrier. The moment I start thinking and start trying to prove that I am better than each one of them in each subject, is when problems are caused. So that conflict is so true, in every aspect of knowledge, in every aspect of management, but it is most true when it comes to technology subjects.

Today, if I get into problems on my mobile phone, I really learn from my grandson. He knows better than I do. In fact, most of the applications on my phone and tablet, I have learned from my grandson, who is in Class-10. So if I can reconcile that, and feel proud that he knows better than I do, why not in a working situation?

In a working situation we try to pretend, we try to prove, we try claim, that the fellow knows less than we do. Therefore, he should be quiet, know his place, etc, etc. Every organisation suffers from this. I think this is an important subject, and with all humility, I have laboured the point for a few minutes. When I was having tea earlier and I saw our old friends, most of them having crossed 60, 65, 70, and the younger from several countries. I thought that we should embrace such subjects with that type of attitude and that type of approach. Then it becomes a winning situation. It is one we must learn. Sometimes we have a tool and we are unaware of its power, and what we can do with it.

So, coming to the Energy Sector, and the Power Sector particularly. Often, out of frustration, we start coming to the conclusion that nothing works in the Power Sector, including Artificial Intelligence. We do not quite reach that conclusion, but many times out of frustration we start thinking like that through all the ups and downs.

These days, one things I do is chair the task force of the Rajasthan Power Sector, and over the last three years we have been struggling. So what do you do in that situation? You have smart meters, you have the best of meters, which in milliseconds or microseconds can tell you what is happening. But what happens when you have a group of consumers, who set up a network of distribution transformers, not in terms of 10's, or 100's, but in terms of 1000's, which are unauthorised and drawing power from substations? That whole segment of consumption is not in your system, so what do you do? Excessive consumption can only be controlled when it is on your system.

Way back in 1998, when I worked at Mumbai Electric, we introduced control of excessive consumption, and inadequate consumption. We tried to know who was responsible for the theft of electricity. For example, if consumption was 30,000 rupees month after month, then suddenly for the last three months it dropped to 3000 rupees, an exception report would be generated, and we would start sending people to investigate. But if the whole thing is out of your system, what do you do? Yesterday's news that Punjab National Bank has a problem, not in terms of 100's or 1000's, but 11,000 Crores, because things are happening outside of the system, month-after-month, year-after-year.

This is where AI and data analytics have emerged to do wonderful things in this area, and many others. Such as disaster management, perhaps it can predict Tsunamis, maybe not a month ahead, but perhaps a week ahead. In India we used to say that "we wake up only when disasters happen", but sometimes that is also true globally. In India maybe we wake up after ten times, in other places maybe once it happens. There is some degree of delay everywhere, but this is such a powerful thing.

The other day, I was talking to an industrialist who deals with logistics, about what the possible applications of data analytics could be in making the lives of his people more comfortable. Say something comes from the USA, or Australia, from the port how does it reach you? That management is very fast, but others are very slow.

At a previous seminar I attended a long time ago, the chief guest was the US Ambassador. He spoke about the 'last mile' problem, recounting how one visit home from India went fine, until he was just 50 miles from home. Those 50 miles took longer than the entire prior time from India, even though he was within the USA. So you can have the best of management, and the best of techniques deployed, where you can. But perhaps because of finances, perhaps because of your attitude to the subject, perhaps because of your knowledge, perhaps because of the company you keep, you can become helpless in delivery.

For example, two or three year back, in a village in the Chhapra district of Bihar, 40-50 children consumed some poisonous food and fell ill. Both the local and district hospitals lacked the facilities to treat that many. Even the prominent Patna Medical College, which we are so proud of, could not treat them. So when it really comes to delivery in a country like India, we see contradictions. We have the most sophisticated

things in NTPC, the most sophisticated things in Power Grid, and maybe some districts, but when it comes to delivery, it's quite the contradiction we are facing in India today.