Impact of IoT & AI on job creation in healthcare sector

05 July 2019 | News

Study supported by Electronics Skill Council of India & Healthcare Sector Skill Council of India

Broadband India Forum (BIF), a think tank for Digital Transformation held a seminar on 'The Impact of IoT on Jobs in Rural India' to highlight the positive impact of Artificial Intelligence (AI) and Internet of Things (IoT) on job creation in the healthcare sectors in India.

As part of the seminar, BIF also released the findings of an on-going study that has being done in consultation with the Electronics Skill Council of India and the Healthcare Sector Skill Council. The study highlights that IoT and AI based applications can have a transformational impact with regards to rural job creation and at a conservative estimate, will create over 2.8 million jobs in rural India over a period of 8-10 years with an annual value of Rs. 60,000 crores (approx. US$ 8.9 billion). Of this, 0.7 million jobs will be created for the rural healthcare sector. These jobs will be created over next 8 – 10 years and the pace and quantity of job creation is likely to further increase post 2021-22 once 5G technology is implemented. The Electronics Skill Council of India and Healthcare Sector Skill Council of India have also supported BIF in this seminar and a formal report on the study is expected to be released shortly.

In his inaugural address, Yaduvendra Mathur, Special Secretary, NITI Aayog said, "There is no denying the role that avant-garde technologies such as IoT and AI can play in the agriculture and healthcare sectors – especially in rural areas. India is the Saudi Arabia for generation of data. It is important to realize that India has the hardware, we have the data scientists, we have the algorithms – what we don't have is real-time, clearly labelled and relevant data from the field. From a Niti Aayog perspective, our focus is on data and that we get access to real-time data that can impact the creation of policy. We are therefore looking at a huge volume of real-time data being harvested from both the healthcare and agriculture domains and shared with us. A lot of work using AI is currently already underway by the government in the healthcare domain – for example the programme for the elimination of Tuberculosis is using AI to improve TB diagnosis. From an agriculture perspective, AI and IoT are important because the diversification of Indian agriculture will not happen unless the farmer trusts the data that is shared with him. This will also require the participation of the private sector, specifically start-ups in the collation of labelling of this data, which in itself will create a huge number of jobs at the data-labelling level."

Dr. Saikrishna Nanduri, CEO, National Skills Sector Council in his address said, "Indian agriculture employs 50% of manpower and we've been seeing declining levels of employment as people leave the sector for better opportunities. The net contribution to the GDP also remains low. IoT and AI can make a huge contribution to transforming Indian agriculture, specifically with regards to productivity enhancement. What is a huge enabler to this is also the high levels of digital literacy in India and our demographic dividend that makes us the world's youngest country. We need to begin by data collection and aggregation – much of it through start-ups. This data will need to be collated and labelled by large Big Data companies and public sector organisations. Once this is done it can be integrated into the user interface and then used by communities, organisations and individuals who will gladly even pay for this."

TV Ramachandran, President Broadband India Forum further added, "It is no secret that the impact of AI and IoT will be truly transformational across industry. The BIF report, for the very first time, shares very significant findings in relation to the impact of IoT on job creation in rural India, specific to agriculture and healthcare. Given India's young demographic profile, sustained job creation is the most critical aspect to keep the wheels of the economy running. Rural India, with 50% of the country's workforce needs to ensure that it garners a significant share of this."

The study also highlights the significant potential when it comes to job creation through IoT in the rural Healthcare sector. At present as much as 60% of India's healthcare professionals serve 30% of the population (residing in urban India). This trend is likely to change as leading healthcare service providers open new specialty hospitals in Tier 3 and Tier 4 towns. The government's Ayushman Bharat initiative is also expected to transform the primary healthcare sector in the country and will help introduce IoT based applications to a rural patient ecosystem. Applications like Remote Medical Assistance & Surgery, Smart Diagnosis, Cloud Based Eye Screening, Pre-Emptive Oncology Diagnosis, Smart Ambulance &Emergency Care, Medical Record Digitization, and Smart Consulting can help bridge the gap between rural healthcare centres and urban hospitals.

The release of the findings was followed by three panel discussions that centered around: (i) National strategy for AI & IoT in Healthcare; (ii) Impact of AI and IoT on healthcare.