

The Hindu

Cognitive computing, big opportunity for knowledge workers in Kerala

THIRUVANANTHAPURAM:

Cognitive computing, which makes a fundamental shift in the paradigm of computing, presents Kerala with the next big wave of opportunities in terms of ‘knowledge jobs.’

Cognitive computing simulates human thought processes in a computerised model. It involves self-learning systems that use data mining, pattern recognition and natural language processing to mimic the way the human brain works.

Cognitive revolution

A cognitive revolution is in the making and this is set to create intelligent machines which work the way human brain learns, thinks, adapts and deduces.

Programmable systems, the mainstay for the last several decades, will give in way to learning systems that get smarter as they process more knowledge.

These systems will also have the ability to read and understand multiple languages which will make the user interface much more intuitive, says Anoop P Ambika, who runs Cognub, one of the first cognitive decision sciences company based out of Kerala.

“The data growth over the past few years has been unprecedented. More than 80 per cent is generated in the form of unstructured text. There exists an immense opportunity for tech-savvy organisations to leverage this text to make game-changing decisions and provide business value,” Ambika said.

For the machines to intelligently make probabilistic predictions with high confidence, a knowledge layer needs to be created underneath.

For instance, if machines were to give a meaningful advice to an individual about purchasing a car, knowledge about customers and vendors should be ‘curated’ and ‘aggregated.’

Accurate predictions

The raw data need to be curated by experts and predictions further validated. Expert feedback will be rolled back into the system which will use 'deep learning algorithms' to make predictions more accurate. A prediction model will thus evolve which will make 'close to 100 per cent accurate' recommendations for the user.

As the data and the knowledge grows, a cognition fabric will emerge, which will be the next form of Internet. The data entering this fabric will be curated, validated and verified.

Four key pillars

Learning, curation, functional feedback and statistical modelling will be the four pillars on which this knowledge fabric will be built. The data will have to be ingested into the fabric in the raw form. User immersion experiences in the form of gaming, videos, virtual reality and other engagement platforms will evolve for common man to experience this curated knowledge.

In this process, a set of new jobs will be created which will revolve around cognitive knowledge creation and experience. This provides immense opportunity for Kerala to be a first mover in this space, considering the abundance of knowledge workers in the state, Ambika said.