IMPACT OF TECHNOLOGY 24X7

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The traditional role of technology is of a good enabler -- a productivity tool, which will improve efficiency and reduce cost.

Technology is going beyond being an enabler to becoming the fulcrum of all activities – commercial and personal. It will become ubiquitous and will get embedded in everything we do. In a sense, technology will become invisible, as it will merge in all products and activities.

With such a profound impact, it will require a paradigm shift in the way we work and live. Here are three important trends, which will impact how you live and work in future:

- **HERE COME THE ROBOTS!**

    Globally, massive amount of money is being invested in robotic technology. Robots have become commonplace in any medium or large factory.

    Future wars are likely to be fought with extensive use of robots. In an unfortunate event on 8th July 2016 in Dallas, USA, where a militant shot down five Dallas policeman and wounded seven others, the Dallas police

detonated a robot-controlled bomb to kill the suspected militant.

Robots are now beginning to function in shared spaces with humans. The new generation of robots is more social and personal. With the proliferation of the Internet of Things, cloud computing and mobility, robots can now access information and make decisions which are unparalleled.

IBM has developed WATSON, a technology platform that uses natural language processing and machine learning to decipher insights from large amounts of data. WATSON has access to 200m pages of structured and unstructured content – equivalent to four terabytes of disk storage

HONDA has developed ASIMO, a humanoid designed to be a multi-functional assistant, with an ability to walk and even run upto 6 kms per hour. Weighing 48 kgs and at 4 feet 3 inches tall, ASIMO has demonstrated that it can climb stairs, open a bottle, pour drinks and even kick a soccer ball in a penalty shoot-out.

By 2030, robots will be able to do all the menial and routine jobs presently done by human beings.

- **ROBO-ADVISORS ARE HERE!**

  In the US and many other developed countries, financial services companies have started using Robo-Advisors.

  What are Robo-Advisors?

  They are a class of financial advisors that provide financial advice orportfolio management online with minimal human intervention.

  Currently, most robo-advisors employ algorithms such as Modern portfolio theory that originally served the traditional advisory community, which has used algorithmically-based automated investment solutions (dubbed in the industry as "rebalancing software") to conduct portfolio management.

  Presently, Robo-Advisors manage approximately USD 50 bn of funds and within the next 10 years, it is expected that to reach a staggering USD 5-7 trillion!

  Much of the focus of Robo-Advisors has been on portfolio management. Will they undertake other routine advice in future?

- **INTERNET OF THINGS (IoT)**

By 2020, it is expected that 40 billion devices across the globe will be connected. The new matra will be *"Anything that can be connected will be connected"*.

When this happens, what will life look like?

Say, for example, you have a meeting 10.00 am. Your calendar will notify your alarm clock. Based on the past data of the time required for you to wake up and get ready, the alarm clock will automatically wake you up at 7.30 am and notify the coffee maker. Once you have picked up the coffee, it will notify the geyser. After you are ready to leave, the navigation map will guide the car by the fastest route. In case you are getting late for the meeting, the person you have to meet will be notified that you are late. At your office, your office equipment will know when it is running low and will automatically re-order supplies.

IoT allows for virtually endless opportunities and connections to take place. It can potentially have a significant impact in smart cities, health and wellness, transport system, waste management, energy, agriculture etc.

It is almost impossible to fully understand the impact of IoT today. However, one thing is for sure – it will impact our lives in a

significant manner.

- **BIG DATA**

  Big Data is large volume of data, structured and unstructured, which is difficult to process using traditional databases and software.
  A lot of IT investment in the corporate sector is going into Big Data computing, which reveals patterns, trends and associations.

  There is an enormous amount of data, which gets generated in any institution and the time is ripe to use Big Data techniques to mine this information and come up with meaningful patterns and trends.

  As an example, in a Higher Education Institution, Big Data can create customized reports for all the stakeholders – personalized assistance to students, dashboards to the teachers on the learning paths, reports to the heads of institutions and compliance charts to the regulators. The broad institutional goals and targets can be measured and analyzed periodically. Importantly, analytics of a student's learning path can enable intervention at an early stage.

  For a student, Big Data can do the

unthinkable – homework assignments that learn from students; courses tailored to fit individual students and textbooks that talk back.

There are many technology trends, which will make an impact and I have merely mentioned four of them. As we move ahead, technology will touch "everything" – work as well as personal life – truly ubiquitous!