

# **Upcoming use of disruptive frugal technology like AI, IoT & 5G for health services.**

Varinder Garg<sup>1\*</sup>

Corresponding Author<sup>1\*</sup>: MBBS, MD Principal Investigator, ICMR-Centre for Innovation and Bio-Design, Room No. 2022 and 2027, Advanced Cardiac Centre, PGIMER, Sector 12, Chandigarh, 160012. Email: [me\\_dvg@yahoo.co.in](mailto:me_dvg@yahoo.co.in)

## **ABSTRACT**

This paper is to study the Ability of the superior computing and next-generation technology in healthcare so as millions of people could be quickly, accurately treated rather than endure the cost and trauma of legacy medical methods. Also, groundbreaking mixtures of compute, database, and AI technologies, a quick round of analyses can reveal a lot about ailments and treatment by understanding all the vital condition of the body. And how could Healthcare system perform with small, even portable medical devices equipped with high-bandwidth connectivity to larger resources.

**Key Words:** Innovation, Artificial intelligence, IoMT, 5G, India in healthcare.

## **Artificial Intelligence and Healthcare - A new dimension**

Maintaining medical record and crucial Patient history is the primitive yet important feature of health sector. AI is shaping this in a new way by providing machine learning an edge & curating data for the deep analysis to come up with faster healthcare solutions.[7] This mechanism has given rise to the reliable solution to perform monotonous jobs in medical sector. Data Analysis has become a marvellous helping hand to cardiologist and radiologist. Helps providing an alternative solution for diagnosis and treatment. This treatment design has a scope of customisation too.

Virtual medication has become an inseparable part of health management which has various aspect like digital monitoring system, personal health management app, and smart hospital. Such solutions are helpful in chronic disease treatment. Drug management and creation will become easy as the faster solutions due to AI can be developed.[9] AI is not just a technological advancement but also it is an Economic boon to a developing countries like India.

## **IoT - A smarter medical solution.**

Patient monitoring and real-time technology is providing beyond imagination a faster treatment and furthermore because of evidence based data makes an informed decision helps in acute diagnosis and medical solution. IoT has not only provided an evidence based treatment but also early diagnosis and faster treatment at very initial stage of ailment.[2] Error Reduction & cost reduction

has been two major achievement of this very technology. Data handling and Real-time solutions remains an extraordinary factor to shift heal industry in IoT.

Examples of IoMT Cancer treatment, Smart glucose monitoring and insulin pens, Connected inhalers, Connected contact lenses, Coagulation testing.[4]

### **5g in healthcare**

5G will be a turning point in the medical revolution and will help to bring exponential speed to telemedicine. Even though telemedicine has becomes an inseparable part of healthcare, still scope of improvement are left open which could be handled well with the upcoming 5G

Technology as it will be a game changer by providing a higher speed to data, bigger space for record management and wider the sphere of real-time telemedicine treatment. Not only remote patients consultation will become easy but effective too, the patches like smarter health solution that require speed and bandwidth to operate will get a seamless environment to bud & fruit. Lab testing records and diagnostic will go hand in hand and timely cure could be provided.[10] An efficient system is one where cost time and solution are taken care at same time, till now trade-off between time , recourse, and cost have been bigger concern which could now after5G can be handheld easily.

### **Innovation to promote medical devices & equipments manufacturing in India.**

New Age Techno-Medical Revolution: Revolution is the source of evolution so has been the driving factor for growth in healthcare sector after a change in Technology. Technical reforms were always driven to improve the diagnosis, analysis, real-time solutions for the new Medical Services. As global has come to our door the opportunity to develop and compete has become a need. Thus the evolution on global medical market is the new hunt for India. Growing awareness among providers and consumers on advancements in medical technology. Changing patients mindset, financial aid for health have shown a new phase for the medical reforms. As time to solution is the need of hour along with acmes to money has provided the market to take risk for the betterment of the healthcare services. Some sections are still to be developed but Technology is the bridge for the primitive and modern health care sector. [16]

### **Strength & weakness of India**

Affordability, Accessibility, Availability, Awareness: In the vast demographic like India it has been a challenge to make change at one go for that the above mentioned hindrance have to be eradicated. Due to economic disparity focus on cost effective solution is desirable. Through new age Technology it would become easy to provide Service even to the remote area but still it is a big stone in the developing healthcare sector. Availability of all the recourses are still unimaginable to achieve. And awareness for the Better infrastructure and technological advancement are in first gear. For better service in medical sector, a lot is still needed to be done. Steady India with new policies and technologies is moving ahead and making a Pug Mark to follow.

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