# FUTURE OF HEALTHCARE

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# 1 INTROUCTION

Like many other sectors,healthcare is about to enter a period of rapid change.Longevity and the advance of new technology and discoveries-as well as innovative combinations of existing ones-are among the many factors propelling patient empowerment,which is fundamentally changing how we prevent,diagnose and cure diseases.

The future of healthcare is shaping up in front of our very eyes with advances in digital healthcare technologies, such as artificial intelligence, VR/AR, 3D-printing, robotics or nanotechnology. We have to familiarize with the latest developments in order to be able to control technology and not the other way around. The future of healthcare lies in working hand-in-hand with technology and healthcare workers have to embrace emerging healthcare technologies in order to stay relevant in the coming years.

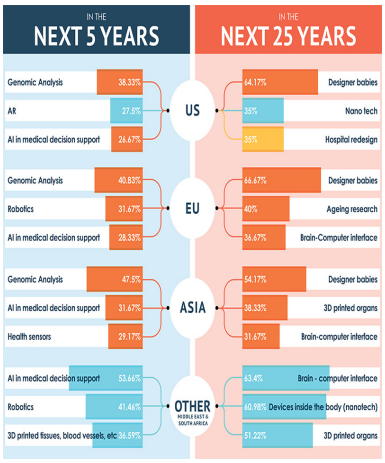


Figure 1: Future of different technologies

Some of the medical advancement we can see in the future are advancement in hospital,large scale use of IoT and telemedicine,use of nanorobots, portable health equipments and many more the list is never ending.I am trying to give a breif description of few of them.

# 2 A GLIMPSE OF FUTURE HEATHCARE SYSTEM

## 2.1 Future Hospitals

While the advancements in medical knowledge and capability made over the years have been remarkable, hospitals have reamined basically the same over the past fifty years.

Tomorrow's hospitals will no doubt rely more heavily on robotics and digital technologies like augmented reality,telemedicine etc. Many of the physical and mental task that doctors perform today will be automated via hardware, software, and combinations of both. That will leave hospital with more space in addition to the space already being freed up through telemedicine and remote healthcare, which reduce the need for patient visit.

Figure 2: Hospital of Future

Telemedicine is one of the fastest-moving areas of healthcare innovation. It is not too far fetched to imagine the hospital of the future to be a rather sparse one, mostly a place for intensive care and robot-delivered surgeries.In next 25 years it is expected that most healthcare delivery will be done virtually rather than in person. The consequences will be far-reaching. Quality healthcare will become more accessible, as it will become cheaper,more efficeint and more convenient.

## 2.2 Use of AI

By applying machine learning technologies to the latest biomedical data and electronic health records, healthcare professionals can quickly mine accurate, relevant, evidence-based information that has been curated by medical professionals. Some AI-powered clinical decision support tools feature natural language processing and domain-based training – enabling users to type questions as if they were asking a medical colleague in everyday conversation and receive fast, reliable answers. By supplementing labor-intensive image scanning and case triage, AI solutions used in medical imaging enable cardiologists and radiologists by surfacing relevant insights that can help them identify critical cases first, make more accurate diagnoses and potentially avoid errors while taking advantage of the breadth and complexity of electronic health records

AI algorithms are able to combine medical records, design treatment plans or create drugs way faster than any current actor on the healthcare palette including any medical professional.

## 2.3 Nanotechnology in future Healthcare

Materials at the nanoscale - in the tens of nanometers - are almost incomprehensibly tiny. Engineering at this size requires manipulating individual atoms. Physical properties, such as conductivity or melting point behave differently, making it exceptionally challenging to work with. But gaining the ability to do so – to build molecule-sized build and manipulate their environment at an autonomic level, or manipulate structures made of proteins or DNA would be a most radical transformation of healthcare in centuries.

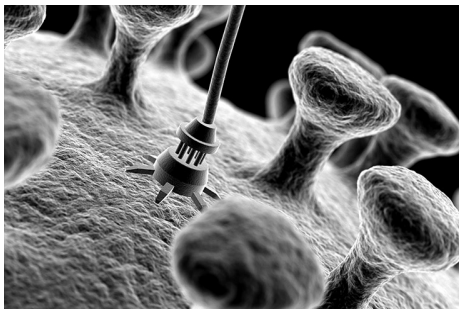

Figure 3: A nanoparticle Implant

Ever-smaller wearable devices that can monitor our vital signs are be-

coming common, but at a nanoscale we could implant them into our bodies. Nano devices could capture incredibly detailed data from deep within us, enabling doctors to personalise treatment.It can also radically improve medical imaging by delivering molecular rosolution.

# 3 CONCLUSION

There so much future scope in healthcare that it can't be written on just few sets of paper.The future healthcare seem promising longer life to human being,better healthcare facilities and quality treatment to all citizens of a country.With recent advancement in 3D printing technologies the time is not away when the artificial organs will counter the global organ donors crisis.AR and VR will help in faster and efficient operations.Machine learning and AI can help medical professional in operating patients.There will be a revolution in healthcare in near future.

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