

Future Of Healthcare

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1 Introduction-

Asia is primed for rapid healthcare change, driven by shifting demographics, rising consumer expectations, technological innovations, and limited legacy health infrastructure. Collectively, these factors could enable governments, payers, providers, and consumers to reimagine healthcare delivery and management. In response to these trends, consumer-centric digital health ecosystems are forming across Asia at unprecedented speed and scale. Today, digital health impacts more than a billion lives, and estimates show that digital health in Asia could collectively create up to 100 billion in value by 2025, up from 37 billion in 2020.

1.1 Upcoming Technologies In Healthcare-

1. **Augmented reality-** AR integrates digital information with the user environment in real time and is becoming more accessible and affordable for medical education and imaging, dentistry and nurse training. AR can't be used to perform accurate and low risk surgeries, but it can also help surgeons save time in case of an emergency surgery. Instead of searching among people or through electronic medical records, surgeons can have access to all of that information of their AR screen within seconds.
2. **Robotics-** Medical robots supported minimally invasive procedure, customised and frequent monitoring for patients with chronic disease, intelligent therapeutic and social engagement for elderly patient. In addition, as roles alleviate workloads, nurses and other caregivers can often provide more empathy and human interaction which can promote long term well being.
3. **Artificial Intelligence-** AI in healthcare refers to the use of complex algorithm designed to perform certain tasks in an automated fashion. When research, doctor and scientist ingest data into computers the newly built algorithm can review, interpret and even suggest solution to complex medical problem. Application of AI in healthcare are endless.
4. **Tissue Engineering-** It is the construction of biological tissue in vitro as well as the alteration of cell growth and function no implantation of suitable cell isolated for donor tissue and biocompatible scaffold material.
5. **3D Printed Organs-** 3D printing for the manufacturing of artificial organs has been a major topic of study in biological engineering. As the rapid manufacturing techniques entailed by 3D printing become increasingly efficient, their applicability in artificial organ synthesis has grown more evident. Some of the primary benefits of 3D printing lie in its capability of mass-producing scaffold structures, as well as the high degree of anatomical precision in scaffold products.
6. **Designer Babies -** Designer babies are babies originated from embryos created by in-vitro fertilization (IVF) and selected because of the presence

or absence of particular genes or a baby created by genetic interventions into pre-implantation embryos in the attempt to influence the traits the resulting children will have. Other potential methods by which a baby's genetic information can be altered involve directly editing the genome before birth. This process is not routinely performed and only one instance of this is known to have occurred as of 2019, where Chinese twins Lulu and Nana were edited as embryos, causing widespread criticism.

