

Part 1: Work from home project by the mentor

Social stigma and Fake News during CoVID-19

Presented by:-
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Methodology

This was a systematic review utilizing Google Scholar, PubMed, ResearchGate and Wiley searches to locate publications deemed to be relevant to the aims of this review, namely, to find social stigma and fake news during COVID 19. Article inclusion criteria was:

- (1) Social stigma
- (2) Fake news
- (3) COVID 19

Corona Virus Disease-2019

- Coronavirus disease 2019 (COVID-19) is defined as illness caused by a novel coronavirus now called severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2; formerly called 2019-nCoV), which was first identified amid an outbreak of respiratory illness cases in Wuhan City, Hubei Province, China. It was initially reported to the WHO on December 31, 2019. On January 30, 2020, the WHO declared the COVID-19 outbreak a global health emergency. On March 11, 2020, the WHO declared COVID-19 a global pandemic, its first such designation since declaring H1N1 influenza a pandemic in 2009.

Social Stigma

Social stigma in the context of health is the negative association between a person or group of people who share certain characteristics and a specific disease. In an outbreak, this may mean people are labelled, stereotyped, discriminated against, treated separately, and/or experience loss of status because of a perceived link with a disease.

It can have various forms:-

1. Name calling, finger pointing.
2. Labeling, blaming, gossiping.
3. Making assumptions, suspecting.
4. Neglecting, rejecting, emotional distancing.
5. Harassment, all the way to physical violence.

Air India crew being ostracised by neighbours, housing societies for operating flights to Covid-19 countries

Manju V | TNN | Mar 22, 2020, 19:06 IST



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ThePrint



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Home > India > 'Stranded, facing eviction' — doctors, air hostesses harassed over coronavirus fear

India

'Stranded, facing eviction' — doctors, air hostesses harassed over coronavirus fear

The Resident Doctors' Association of AIIMS wrote to Amit Shah Tuesday requesting action against harassment of medics in the wake of the coronavirus pandemic.



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Fake WhatsApp Videos Behind Attack on Health Workers in Indore: Report

A resident of Tatapatti Bakhel said residents were suspicious of health workers after fake videos started doing the rounds.



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Stigma: the other enemy India's overworked doctors face in the battle against Covid-19

March 25, 2020

Causes of stigma

People stigmatize because they feel that stigmatizing and excluding somehow reduces risk. Thus, perpetuating such an attitude somehow creates a false sense of distance or empowerment in the face of uncertainty.

- Lack of Knowledge and how it is transmitted
- Fear of getting infected
- Fake news and negative outlook about people with CoVID-19
- Association to being a bio-weapon made by China
- Association of some religions to further its spread

Fake News

- WHO has labelled the spread of this fake news on the outbreak as an 'infodemic' and said that the non-scientific and manipulated information was spreading faster than the disease itself.
- The term fake news has been referred to as propaganda, deception, manipulation, fabrication, news satire and news parody or as 'either wholly false or containing deliberately misleading elements incorporated within its content or context.'
- It is usually circulated online and has a specific objective of using emotion to generate attention and viewing time toward aims such as messaging around populace or divisive themes; image tarnishing; and intimidating the press, shutting down and silencing dissent.

Fake news by type

According to BOOM fact checker, most of the false and misleading information were in the form of

- Videos – 35%
- Text Messages – 29.4%
- Quotes by celebrities – 29.4%
- Audio Clips – 2.2%
- Main stream media – 4%



RUMOURS CIRCULATED IN SOCIAL MEDIA

DEAR ALL,

MANDATE FOR ALL:
TONIGHT 12 (MIDNIGHT) ONWARDS DISASTER MANAGEMENT ACT HAS BEEN IMPLEMENTED ACROSS THE COUNTRY. ACCORDING TO THIS UPDATE, APART FROM THE GOVT DEPARTMENT NO OTHER CITIZEN IS ALLOWED TO POST ANY UPDATE OR SHARE ANY FORWARD RELATED TO CORONA VIRUS AND IT BEING PUNISHABLE OFFENCE.

GROUP ADMINS ARE REQUESTED TO POST THE ABOVE UPDATE AND INFORM THE GROUPS.

PLEASE ADHERE THIS STRICTLY.

FAKE NEWS



7 likes

souloperator1216

It can't hurt 2 try 🍋🍋 IN ISRAEL NO DEATH FROM C-19 !

He told them a super news ... This is how it arrived and this is how I send it.

The cure for the C19 virus or the way to eliminate it was achieved.

Information comes from Israel that this virus did not cause any death there. *The recipe is simple*

1. *Lemon 🍋*

2. *Bicarbonate* 🍷

Mix and drink as hot tea 🍵 every afternoon, the action of the lemon with hotter baking soda 🍷 immediately kills the virus 🦠 completely eliminates it from the body. These two components alkalize the immune system, since when night falls the system becomes acidic and defenses lower.

That is why the People of Israel is relaxed about this virus. Everyone in Israel drinks a cup of hot water with lemon and a little baking soda at night, as this is proven to kill the virus.

I share it with all my family and friends so that none of us get the virus. I leave it to your criteria. 🙏❤️ *Please pass this immediately*



NO! Inhaling steam from hot water does not kill coronavirus.

A Chinese expert assures everybody that inhalation of a steam from hot water kills Corona virus 100 percent. Even if the virus entered the Nose, throat or Lungs. Corona Virus can not stand the hot water steam... PLEASE CIRCULATE THIS INFORMATION TO ALL YOUR FAMILY MEMBERS AND FRIENDS.

#PIBFactCheck

EMAIL GOVT. OF INDIA RELATED FAKE NEWS TO pibfactcheck@gmail.com



Help us to help you

FAKE NEWS

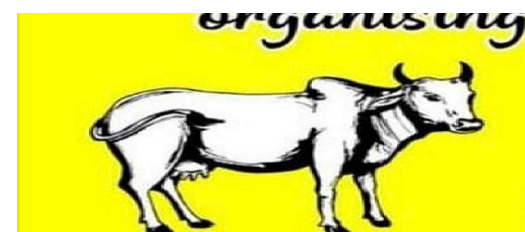
NEW HEADLINES
Centre will go ahead with reducing the retirement age of Central Government employees to 50 in this time of COVID-19 outbreak



#MyGovFactCheck

Centre will go ahead with reducing the retirement age of Central Government employees to 50 in this time of COVID-19 outbreak

#IndiaFightsCorona



Swami Chakrapani Ji Maharaj
National President

(To Neutralize the Effect of Corona Virus)

GAUMUTRA PARTY

You are cordially invited...

**Saturday 14 March 2020
12.00 Noon onwards**

There is NO SUCH ORDER from Ministry of Home Affairs

information

All honorable members who run the group are informed that right now any post related to Corona virus has been declared a punishable offense by the Central Government, only a government agency can post on Corona. In case of wrong post or message action will be taken against the members of the entire group including the group administrator by registering a lawsuit under the IT Act, so keep in mind be safe.

Ravi Nayak

Principal Secretary

Ministry of Home Affairs, Government of India

#PIBFactCheck

EMAIL GOVT. OF INDIA RELATED FAKE NEWS TO pibfactcheck@gmail.com

Impact of stigma and fake news

- People tend to hide their illness to avoid any discrimination.
- Avoid seeking health care immediately.
- Discourage them from adopting healthy behaviors.
- Communal disharmony.
- Distrust among citizens regarding government and essential service providers and their efforts.
- Those who are infected or are suspected of being infected commit suicides.

How to combat social stigma and fake news?

- Support mechanisms to be put in place for those in self-isolation and quarantine. This means that such people must be regularly checked up on, and grocery and essential items be brought to them.
- Strong leadership at all government levels which involves the public in its decision-making process, and answers people's questions about COVID-19. This includes information on testing and contact tracing. This reduces fear and enables buy-in and support of government COVID-19 response mechanisms.
- A state-led public awareness campaign that provides accurate information about COVID-19 and in so doing automatically combats fake news and myths.

- The role of the media and imaginative communications is particularly critical here. Baseless rumors, fake news and racial stereotyping feed stigma and need to be called out.
- We need to create a stigma mitigating public narrative otherwise we will find that more and more people will hide their symptoms and be fearful of seeking testing and care.
- We need to create a positive narrative too about recovery and hope. It is important to emphasize stories of recovery to lessen paranoia and feeling of impending doom.
- We need to make the public realize that many people will recover from this virus and seeking care at the soonest is critical.

- Approaching the lockdown as a public health crisis that requires constant awareness raising and not by repressive enforcement of lockdown measures put in place.
- Police violence must end as too many people have already lost their lives.
- Care is given to ensure the elderly, disabled, children, victims of abuse, migrants etc. are taken care of and not abandoned or othered.



CORONA WARRIORS
THANK YOU

Part 2: Online course

Artificial Intelligence for Healthcare: Opportunities & challenges

Presented by-

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Innovations in Medical and Biological Engineering

1950s and earlier

- Artificial Kidney
- X-Ray
- ECG
- Cardiac Pacemaker

1970s

- Computer assisted tomography
- Artificial hip & knee replacements
- Endoscopy

1960s

- Heart valve replacement
- Ultrasound
- Vascular Grafts
- Blood analysis

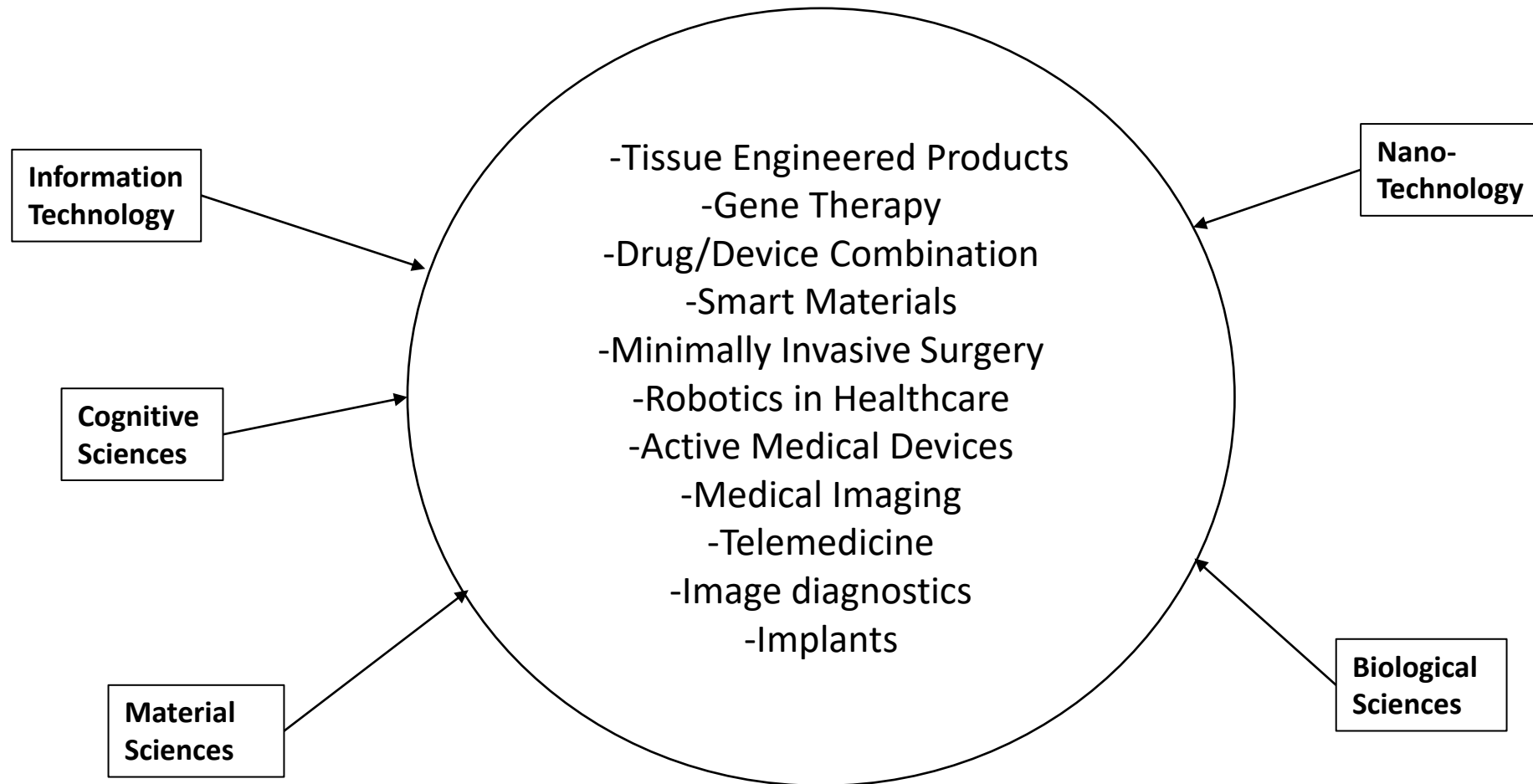
1980s

- MRI
- Laser surgery
- Recombinant therapeutics

Present day

- Genomic sequencing & microarrays
- Positron Emission Tomography
- Image guided surgery
- Biological Plant food engineering
- 3D Printing

Converging Technologies



New generation of medical technology products are combination of different technologies which lead to crossing borders between traditional categories of medical products such as medical devices, pharmaceuticals or human tissues.

What is Artificial Intelligence?

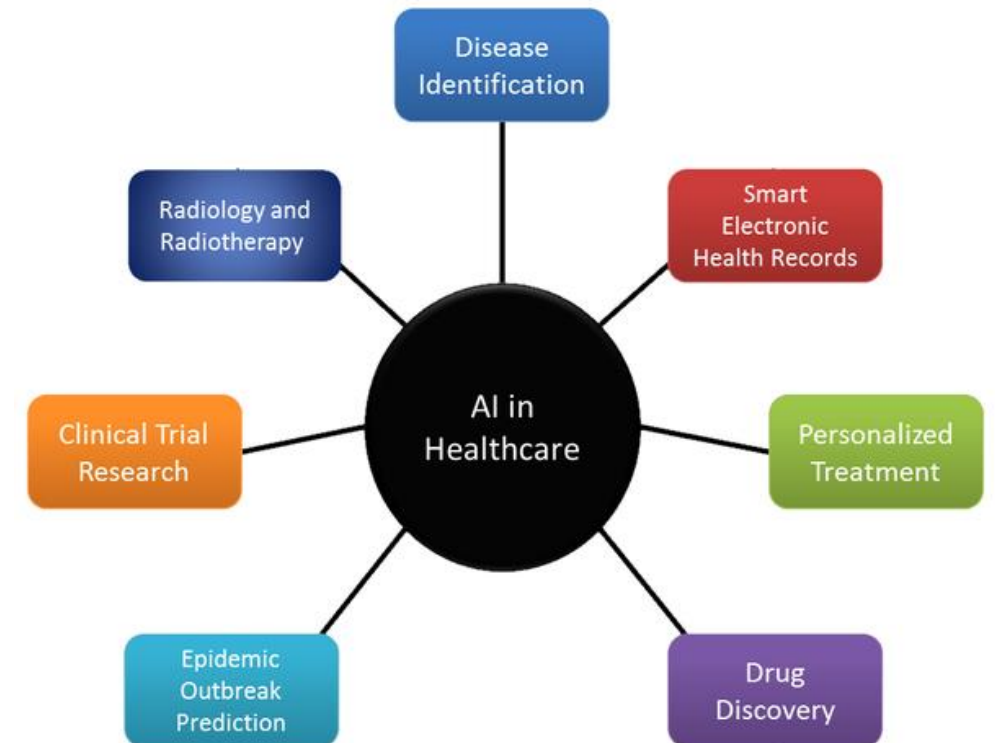
- Use of a computer to model intelligent behavior with minimal human intervention.
- Machines and programs that are able to solve problems like a human brain.
- Natural Language Processing(NLP) and translation:
 - Pattern Recognition
 - Visual Perception and decision making
- Machine learning, focusses on computational approaches to make sense of data automatically.
- Advantages of machine:-
 - Can retain Information
 - Become smarter overtime
 - Not susceptible to sleep deprivation, information overload, cognitive limits and infections.

The applications of A.I in Healthcare has two main branches :-

- **Virtual Branch**
- **Physical Branch**



- Highly repetitive work.
- Empower doctors by helping them deliver faster and more accurate results.
- Augment the professionals, offering them expertise and assistance.
- Managing wait time & scheduling.
- **Artificial Intelligence will not replace clinicians and administrators instead it will only help them.**

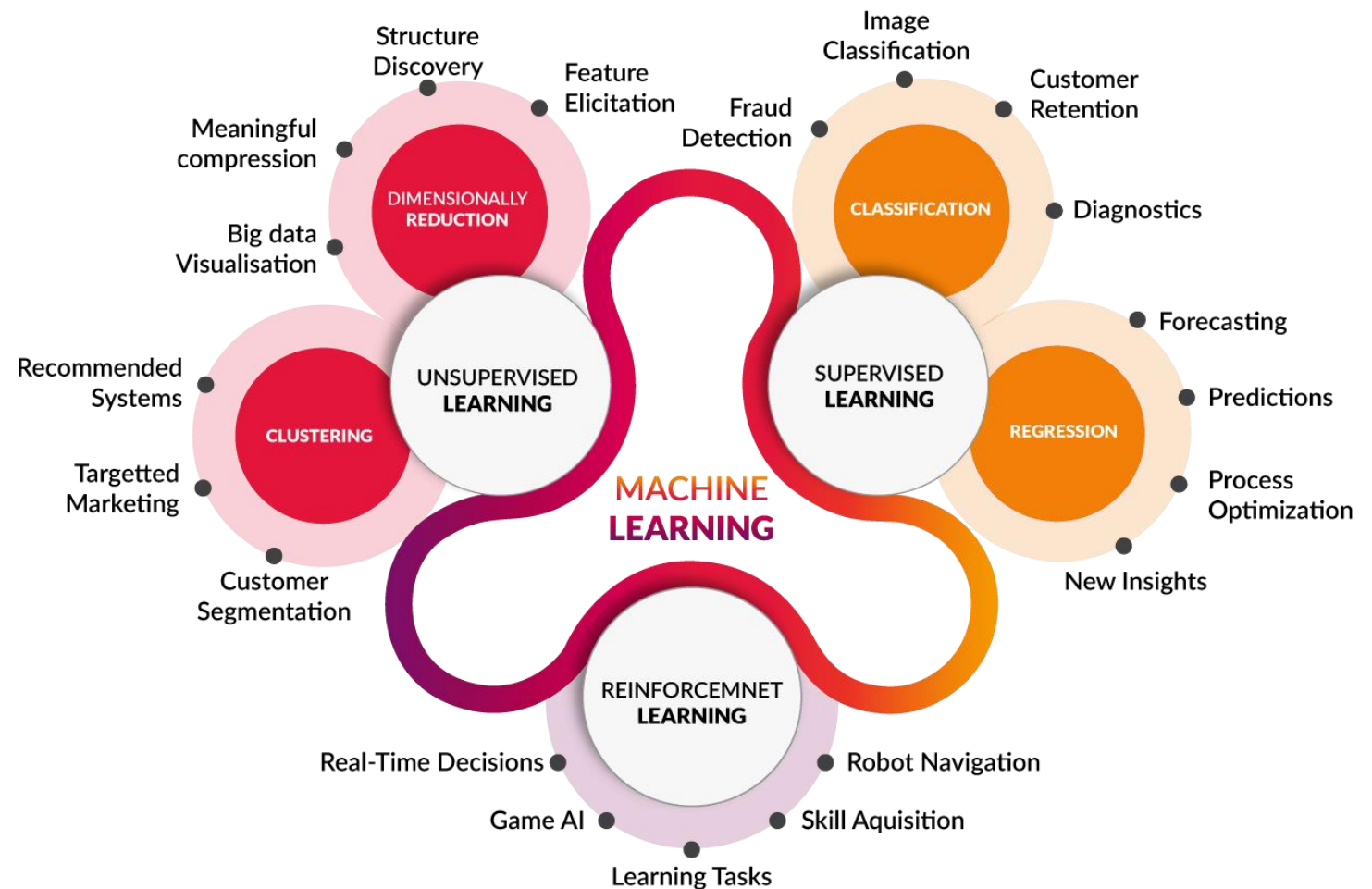


Artificial Intelligence in Healthcare: The Virtual branch

The virtual component is represented by Machine Learning (Deep Learning), mathematical algorithms that improve learning with experience.

There are three types of machine learning algorithms :

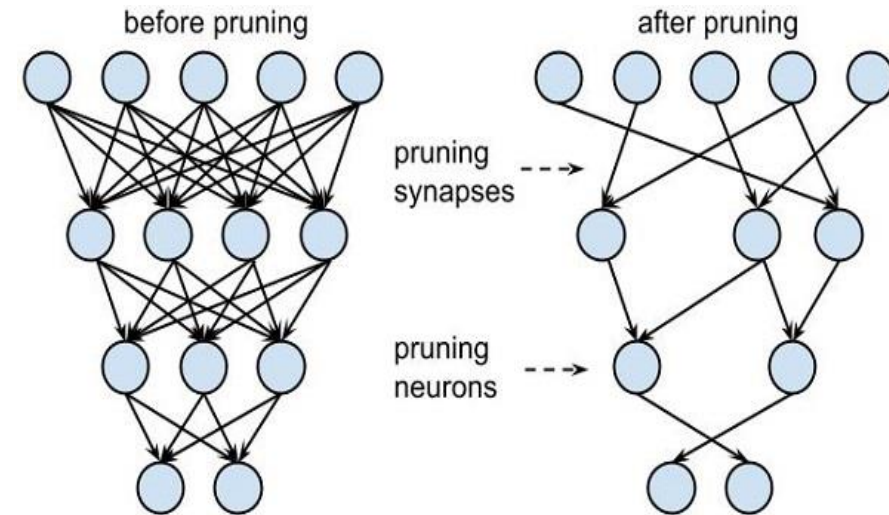
1. Unsupervised (ability to find patterns)
2. Supervised (classification & prediction algorithms based on previous experiences)
3. Reinforced learning (use of sequence of rewards and punishments to form a strategy of operation in a specific problem space)



Benefits of Artificial Intelligence

A.I can assist physicians:

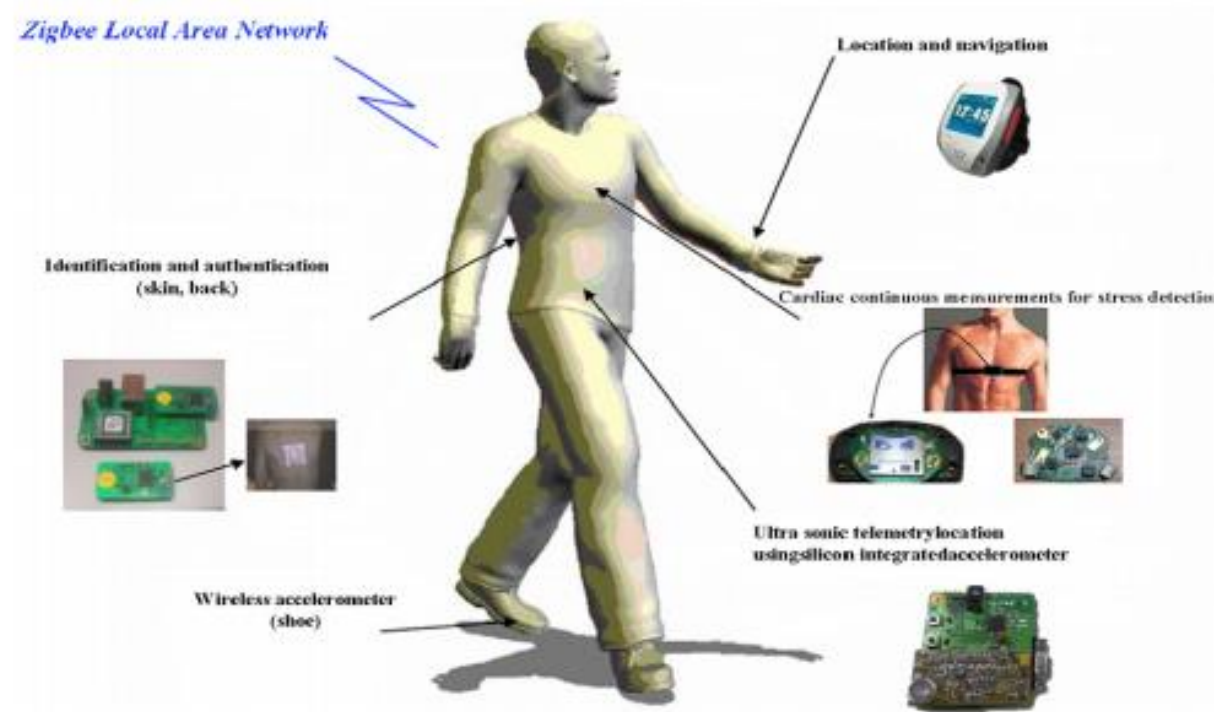
- improve clinical decision making as recommendations are based on data.
- Replace human judgment in certain functional areas of healthcare e.g.. Radiology.
- Up-to-date medical information from journals, textbooks and clinical practices.
- Experienced v/s fresh clinicians.
- Round the clock availability.
- Early diagnosis.
- Prediction of outcome of disease as well as treatment.
- Feedback from treatment.
- Reinforce non-pharmacological management.
- Reduce errors.
- Assist in making real-time inferences for health risk alerts.
- Learning and self corrective ability to improve performance based on feedback.



Artificial Intelligence in Healthcare: The Virtual Branch

It includes:

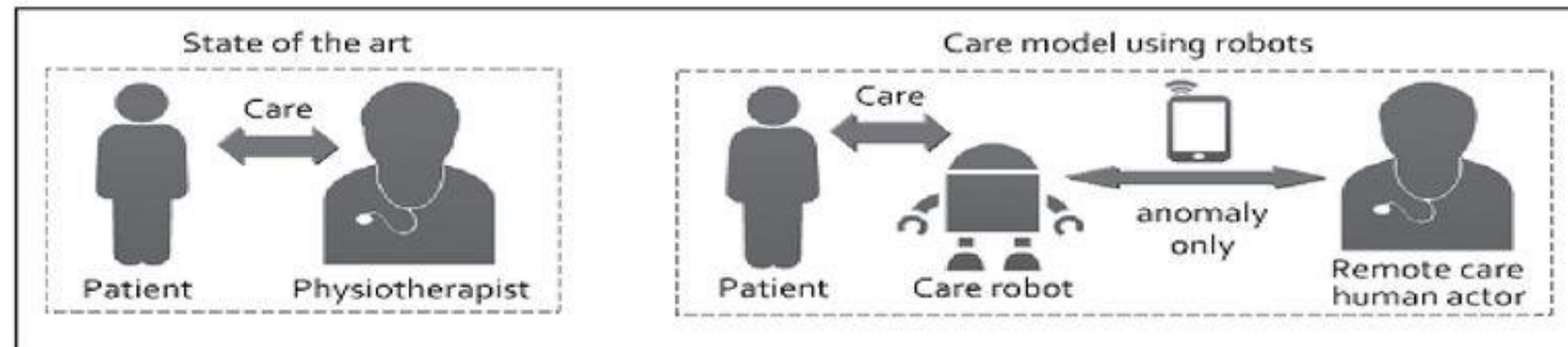
- Physical objects.
- Medical devices.
- Sophisticated robots for delivery of healthcare also called as care bots.
- Robotics for surgery.
- Apps for health tracking.



Use of robots to deliver treatment - Robotic surgery

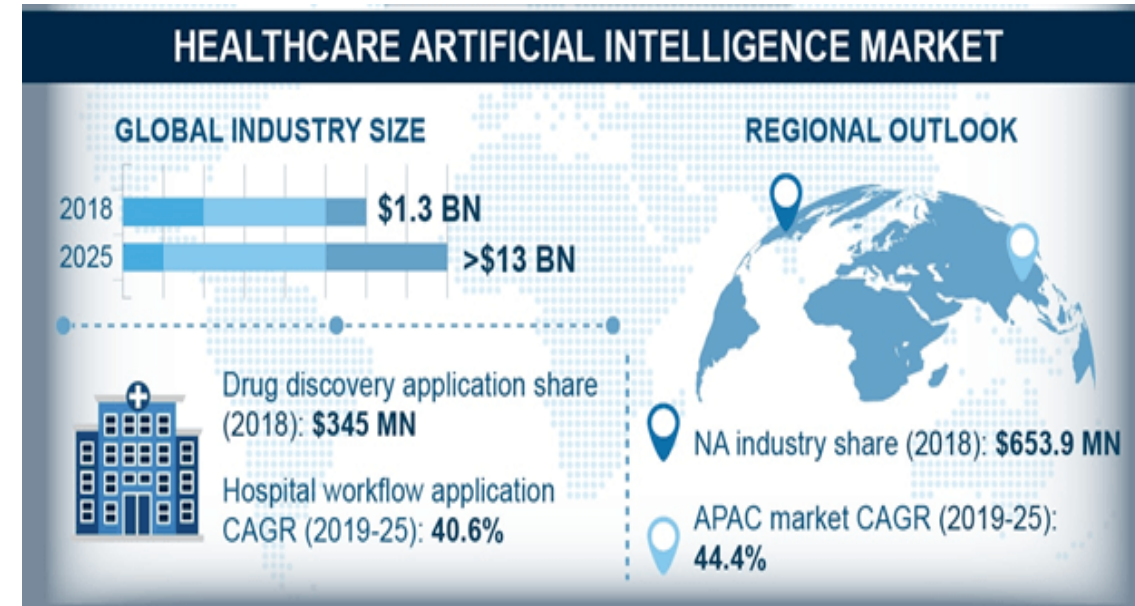


Use of robots to monitor effectiveness of treatment



Growth drivers of A.I in healthcare

- Increasing individual health expenses.
- Larger geriatric population.
- Imbalance between health workforce and patients.
- Increasing global health expenditure.
- Shortage of nursing and technician staff. Current vacancies for nurses in our country is around 1.2 million.
- A.I will help medical practitioners in effectively completing their tasks with minimal human intervention, a critical factor in meeting increasing patient demand.



Potential challenges for A.I in Healthcare

- Development cost.
- Integration issues:-
 - Ethical issues
 - Reluctance among practitioners to adopt A.I
 - Fear of replacing humans
- Data privacy and security:-
 - Mobile health applications and devices that use A.I
 - Lack of interoperability between A.I solutions
- Data Exchange
 - Need for continuous training by data from clinical studies.
 - Incentives for sharing data on system for further development and improvement of the process.
- State and federal regulations.
- Rapid and iterative process of software updates commonly used to improve existing products and services.

Future Indian Scenario

- Collaboration between medical and technical institutions.
- Stop working in silos.
- Government funding- more intelligent and result oriented working
- Laboratories and clinics need to collaborate to accelerate implementation of electronic health records.
- Data needs to be captured in real time and thus institutions need to promote their transformation into intelligible processes.
- New scientific and clinical findings need to be shared through open source and aggregated data must be displayed for open access by physicians and scientists.
- Integration and interoperability including ethical and logistical concerns are enormous.
- Electronic medical records
 - essential tools for personalized medicine
 - early detection and targeted prevention

