Tech + ♥ = *live* Smart

R Health Beat

Quarterly Health Magazine - Vol. 26, Nov. 2020

Digital Health
DECODED

Defeating the
virus through
technology

**TRAVELLING
REBOOTED**

Happy 125th
Anniversary,
X-RAY!

Amazing healthcare
innovations by
brilliant minds!

From the Editor's Desk

Rakesh Jain
Chief Executive Officer
Reliance General Insurance &
Editor-in-Chief, R HealthBeat

Dear Reader,

In today's world, technology is flourishing day by day and has become the foundation of future. We are witnessing digital revolution across all the sectors and healthcare is no exception to it. Telemedicine, wearable, artificial intelligence, chatbot – the present healthcare system has all of it! This new edition of R HealthBeat themed – **"Healthcare Reinvented"** focuses on the tremendous potential of technology and the various digital innovations that have reshaped the industry.

The recent advancements in technology have started to change the conventional processes. "Healthcare_Version 2.0" provides an insight into the recent trends in healthcare sector and its amazing benefits. We all are learning to adapt to new ways of life which have led to most of our time being spent online. Learn about the ways to maintain healthy lifestyle in "Finding a balance with technology".

As health industry continues to adopt latest and greatest, let's have a look at some incredible advancements in "Amazing healthcare innovations by some brilliant minds". Digital world is full of buzzwords and jargons. "Digital health decoded" provides an understanding of some of the jargons in simple and easy language.

Wearable technology has become a significant part of today's fitness culture. Know the various trends in the wearable world in "The Fitness Today" section. New technological innovation is helping countries across the globe fight the spread of COVID-19. Learn more about it in "Digitally defeating the virus".

Thank you for your continued support and enjoy reading this issue!

Wishing you the best of health, always!

Warm regards,
Rakesh Jain

What's Inside

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Readers' Connect

Look what our **readers have to say** about R HealthBeat

> R HealthBeat is a magazine that is focused on raising awareness on different health topics and motivating people to take a pro-active stance towards their personal and family health. Congratulations to the entire team of R HealthBeat for their stupendous work.

Amit Kumar Midha
Unit Head – Sales & Marketing, BLK Super Speciality Hospital

> Congratulations to Team RGI for the successful launch of 25th edition. The information provided in the magazine is very relevant in current scenario. Hats off to the team for their tremendous efforts!

Muralidhar K J
Deputy General Manager (F & A)
Avasarala Technologies Ltd.

> Truly appreciate R HealthBeat magazine from Reliance team. It provides insight into wellness world with amazing content. Looking forward for the next editions.

George Lloyd
HR Manager
Sonus Networks

**Scan the QR code to read the previous editions of R HealthBeat**

GET IN TOUCH

We look forward to getting to know you better!

We welcome your suggestions, questions or ideas. Also to know more about our Wellness Program you could write to us at **rgicl.rcarehealth@relianceada.com**

Visit www.reliancegeneral.co.in for more articles and updates on Healthy Living and Wellness.

Did You Know
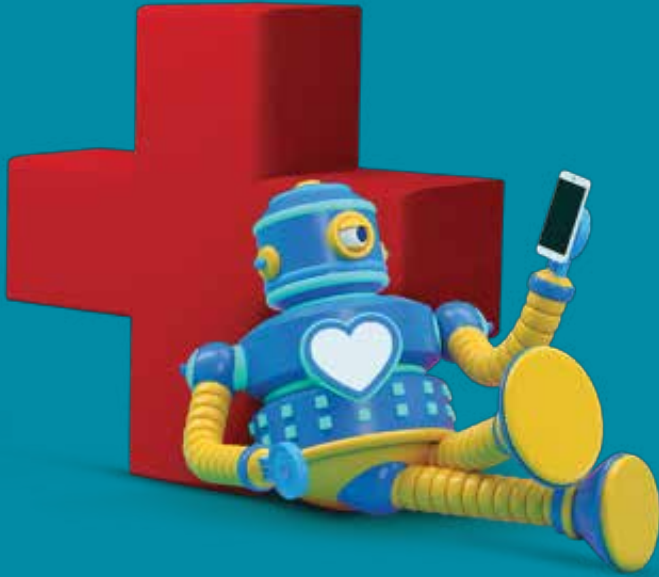
Healthcare
Version 2.0

The world is going digital. It's happening everywhere. In fact, we all are living it! Digital tools are reshaping the landscape of healthcare in a significant way. It could hold the key to happier hearts and emotional well-being. Intrigued? Read on to know more.

Convenience is the new Currency

In this digital age when consumers are used to almost all services being offered online, healthcare industry is not one to be left behind in offering a seamless online experience.

With a few clicks on smart phones, patients can connect with doctor who may be miles apart, get instant access to medical reports, track fitness activities etc. The whole thing is fast, easy and time saving!

Digital technology is proving to be a powerful tool in reshaping the Healthcare ecosystem. It has huge potential to improve outcomes, personalize patient experience, enhance productivity as well as increase affordability. With technological advancement, healthcare is set to become much more efficient and effective.

Big Data –
The New Buzzword

Big data refers to the incredible amount of information collected from various sources like hospital records, medical records of patients and fitness tracking devices.

Some amazing benefits are - software can analyze big data and the errors which can help to save lives, predictive analysis could help estimate future admission rates.
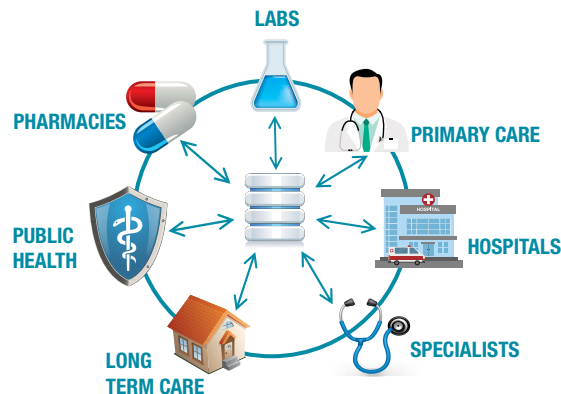
The Magic of Virtual Reality

Virtual Reality (VR) isn't just for gamers anymore! It's being used for therapies and medical training programs. VR therapies are used for pain management wherein patients are shown breathtaking view via VR headsets.
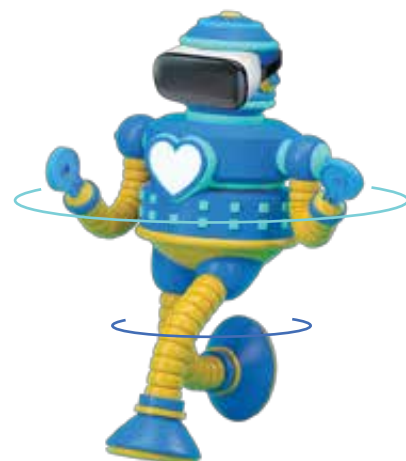Patient education through VR helps to soothe their minds and helps in clearing any inhibitions. Doctors and nurses obtain training through VR tools to gain better understanding of surgeries and various procedures.

The Wearable Life

- How amazing it is that technology can monitor your every activity, every step, sleep pattern, diet and provide meaningful insights to improve your health! Wearable technology is making huge strides in healthcare.

- These wearables are not confined to a watch anymore but it can exist in the form of patches – which delivers insulin to diabetic patient, headbands that provide relaxation and relieves stress, contact lenses which tracks glucose levels and many more.

Wonders of Artificial Intelligence

- Artificial Intelligence (AI) in healthcare has grown enormously over the years and it has the potential to impact almost every aspect of healthcare – from detection to prediction and prevention.

- AI enabled virtual assistants can help patients in their daily activities, help in digital consultation, designing of customized treatment to patients & many more.

FINDING A BALANCE
WITH TECHNOLOGY

As we all spend more time at home, we are learning to adapt a new way of life. No matter what you're doing – working, eating, exercising, chances are you are doing it with a screen. Though technology is a crucial tool during the period of social isolation, there has to be a boundary between work and home life. Let's have a look at some insights which will help to find focus, manage screen time, get better sleep and much more.

Staying focused while working from home

Below are few practices which will help you to be more productive, accountable and collaborative.

Try reducing the number of screens around you.
Prioritize the one that helps you achieve the task at hand.

Apps can be paused temporarily to minimize the distractions.

Keeping phone out of your line of sight can improve concentration, increase ability to retain information and help reduce stress.

Simplify home screen by removing the distracting apps in a specific folder so you are less likely to open it. Only work related apps can be kept on home screen.

Reducing Screen Time

Screens have become our gateways into the world of family, friends and education. But how to ensure we maintain a healthy relationship with them? Below are few hacks.

To avoid getting pulled into your phone, you can take help of virtual assistant which is present in your phone.

Creating daily timers will help to limit the usage of certain apps or sites.

It is important to set digital ground rules for kids as well.

Unplugging from technology for good night's sleep

Scrolling and browsing late at night can keep your mind buzzing when you're supposed to wind down. Disconnecting from screens before going to bed can help you sleep better

Create device free zones at home.

Maintain regular bedtime routine.

Blue light can have negative impact on our natural sleep cycle. Try putting your phone an hour before bed and choose screen free activity like reading a book.
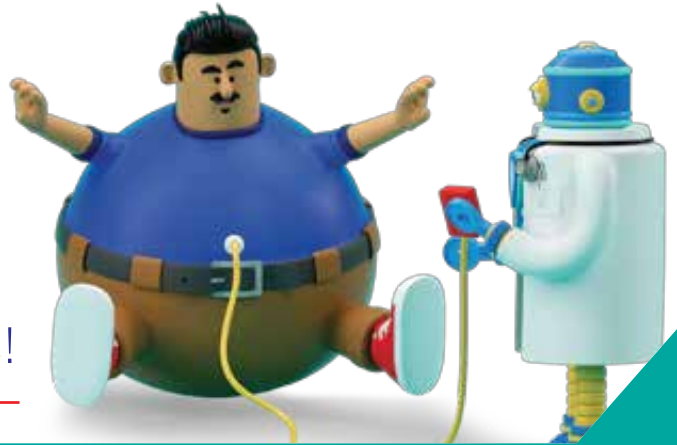
20/20/20
to prevent
digital
eye strain

Take a
20
Second
break

Every
20
Minutes

Look at
something
20
Feet
away
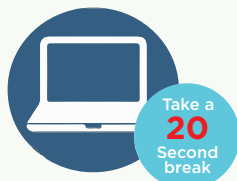
Practicing this rule protects your eyes from the harmful effects of blue light and digital eye strain

Special Focus

AMAZING
Healthcare Innovations
by some brilliant minds!

With stunning technologies on the rise, healthcare is witnessing some amazing innovations. Read on to know more.
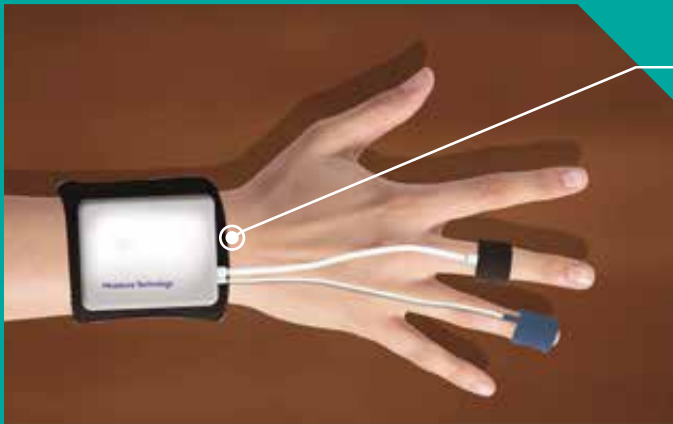
Detect Diseases With Miniature Technology

A device which analyses patient's data obtained from Bluetooth sensors and detects medical conditions like diabetes, pneumonia, tuberculosis and many more. The amazing thing about these devices is that it can be used by anyone without any medical training.

Smart Pill

Imagine a pill which can take pictures of digestive system or diagnose any gastrointestinal concerns!

A smart pill, which has embedded microchips, cameras or sensors that wirelessly communicates with mobile apps and computers, has the ability to identify the ailments and send the data to doctors for further diagnosis. Many diseases can be uncovered by this smart pill.

Portable Gluten Testing Device

A pocket sized accessory which can help anyone with gluten allergy lead healthier life. This works by keeping a food on the tester. If a smiley face appears, the meal is guaranteed gluten free, but if the face looks unhappy, then there's a chance the dish contains gluten. This innovative accessory gives user results in under two minutes!

Revolutionary Smart Cane for Visually Impaired

A cane intended to assist those with visual impairment through the use of smart technology. Built-in speakers, Google maps and voice assistants as well as compatibility with smart phone's Bluetooth system can help visually impaired navigate while special sensors alert them with vibrations when obstacles are present.
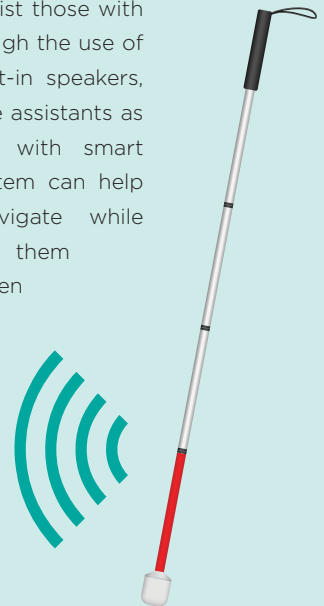
Drone Delivered Medicines

Delivery of life saving medicines at the comfort of patient's house form a major milestone in healthcare industry. This little piece of technology can dramatically cut transport time and increase the accessibility of the medicines. This can be a huge advantage for people living in rural areas.

Few more innovations

- Bioscraf: Fashionable scraf which has inbuilt air filters
- 3D Digital Hearts: Used for simulation of complicated surgeries
- Sanitizing wand: The wand which emits UV light and kills the bacteria/viruses

Happy 125th Anniversary X-Ray!
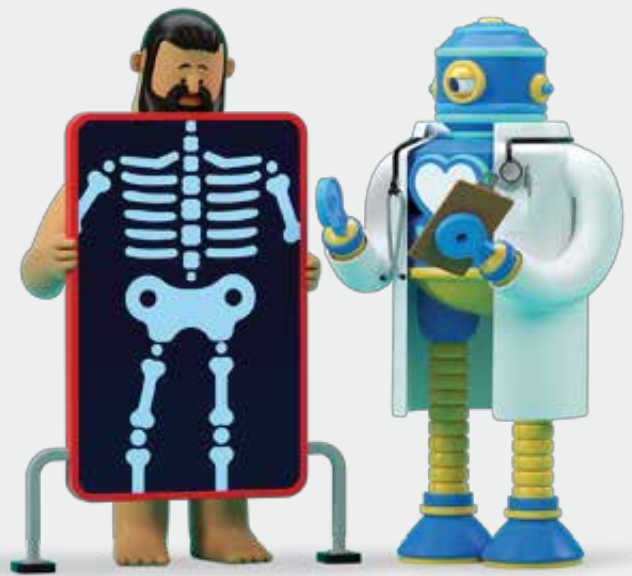
2020 marks the 125th anniversary of one of the greatest moments in history of science: Wilhelm Roentgen's discovery of X-Ray that has revolutionized our view of the world, by making the invisible visible.

The accidental invention of X-Ray

In the year 1895, Roentgen, a German physicist was working in his lab when he accidentally discovered these rays. He then dedicated every working hour to better understand his discovery. He learned that X-ray can penetrate human flesh but not higher-density substance such as bone and they can be photographed.

Winning the Nobel Prize

Wilhelm Roentgen received numerous accolades for his work, including Nobel Prize in 1901. He was the first physicist to receive the Nobel Prize. He donated the entire prize money to his University as he firmly believed that such discoveries are the property of mankind! This discovery was labeled a medical miracle and it became an important diagnostic tool in medicine.

The fascinating discovery

The discovery of X-Ray paved the way for advanced medical imaging procedures. We now operate with a much deeper understanding of the universe we inhabit. It has changed the healthcare sector and continues to be the key player in patient care on a global scale!

Digital Health Decoded

Hugo Gernsback first envisaged "Tele-medicine" and named it as "Tele-dactyl" literally meaning "Feel at a distance." It has taken 100 years for the world to truly recognize the potential of Telehealth / Telemedicine. Healthcare's digital revolution has already begun, as everyone around the world is keeping an eye on it. Here's a peek at some of the jargons related to digital health.
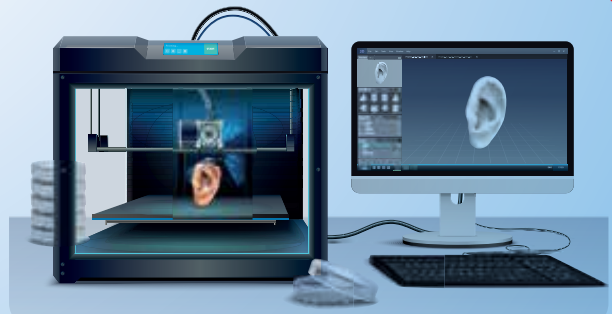
Telemedicine:

It is the diagnosis and treatment of patients through telecommunications technology like video calls, text messages and more. It is suitable for people living in rural areas where healthcare and transportation facility is limited.

mHealth (Mobile Health):

The use of mobile devices for healthcare or personal wellness is called mHealth. Any use of mobile app, wearable and other wireless devices is considered as mHealth. Patient educational videos, diagnostic reports and insurance policies available on mobile application are few examples of mHealth.

Download Reliance Selfi App now!

Internet of Things:

It includes everything connected to internet like smartphones, simple sensors, wearables. Medical information gathered from such devices and used for creating an action plan is called internet of Things. For example, wearable devices with embedded sensors can monitor patient condition and can notify doctor remotely.

Artificial Intelligence:

It is the science and technology of producing intelligent machines. It involves using computers to do things that tradionally require human intelligence. For e.g. Artificial Intelligence software can be incorporated in the smartphone which can act as a diagnostic tool. Smartphones can be used to collect images of wounds, infections and the software can detect the disease.

3D Printing:

It is a process of converting three-dimensional digital object drawn on a software into a physical object, by laying down many thin layers of material. 3D printing is used in transplant, creation of surgical tools, prosthetic limbs.

Health Guide

DIGITALLY DEFEATING THE VIRUS!

The recent outbreak of Coronavirus has led to the rise of technological innovations which are aimed to save lives and support people's well-being. Here are novel ways that technology is taking to tackle the novel virus.

Detect COVID-19 through voice

Researchers are working on detecting Covid 19 through voice. One needs to record voice and the result will be available. The app compares the voice with the millions of people who have been tested positive.

What is the science behind this? – Whenever human lungs are affected by disease, their voices are first to get affected. Even if the change is not noticeable to human ear, a computer can easily detect the change. Thus, by combining artificial intelligence and voice data, detection of the disease through voice may be possible.

Drones spraying disinfectant

One of the effective ways adopted to decrease the spread of coronavirus is through hygiene measures. Drones are being used for spraying disinfectant. They are easy to operate, can be quickly mobilized. Additionally it also reduces the risk of the workers getting exposed to virus.

Contact tracing app

These apps track people who have travel history and those who have come in contact with positive COVID-19 person. Users need to submit their required details in the app. It helps to support the work of contact tracers and healthcare workers.

Facial recognition technology

In order to check if people are complying with quarantine guidelines, facial recognition technology is being used. Surveillance has been made easy through this technology. This system also has capability to recognize whether people are wearing a mask!

Robots to the rescue

Robots have been used for disinfection, delivering medications and food, measuring vital signs. This help in minimizing human contact preventing the spread of virus.

Tracking fever with thermal sensors

Thermal sensors can be used effectively to measure the temperature. They have been used in public places like airport, railway station, and bus stops. An automatic alert goes off when people with high temperature are identified.

NEW TRENDS DRIVING HEALTHCARE SECTOR

The healthcare industry is on the frontline of the fight against Coronavirus and the pandemic is changing the future of healthcare industry. It has challenged the traditional working of the healthcare domain and pushed towards an expedited adoption of digital health.

Strengthening Immune System

Immunity is our savior during this entire span of fighting the virus globally. And thus it is more important than ever to incorporate positive lifestyle habits that can help to stay healthy and boost immune system. This has resulted in an increase in demand for immunity boosting products.

Portable Medical Devices

The pandemic has triggered a wave of health awareness as people are becoming more conscious. The medical device market has come in force in recent months. These include oximeter, BP monitor, and infrared thermometer and many more.
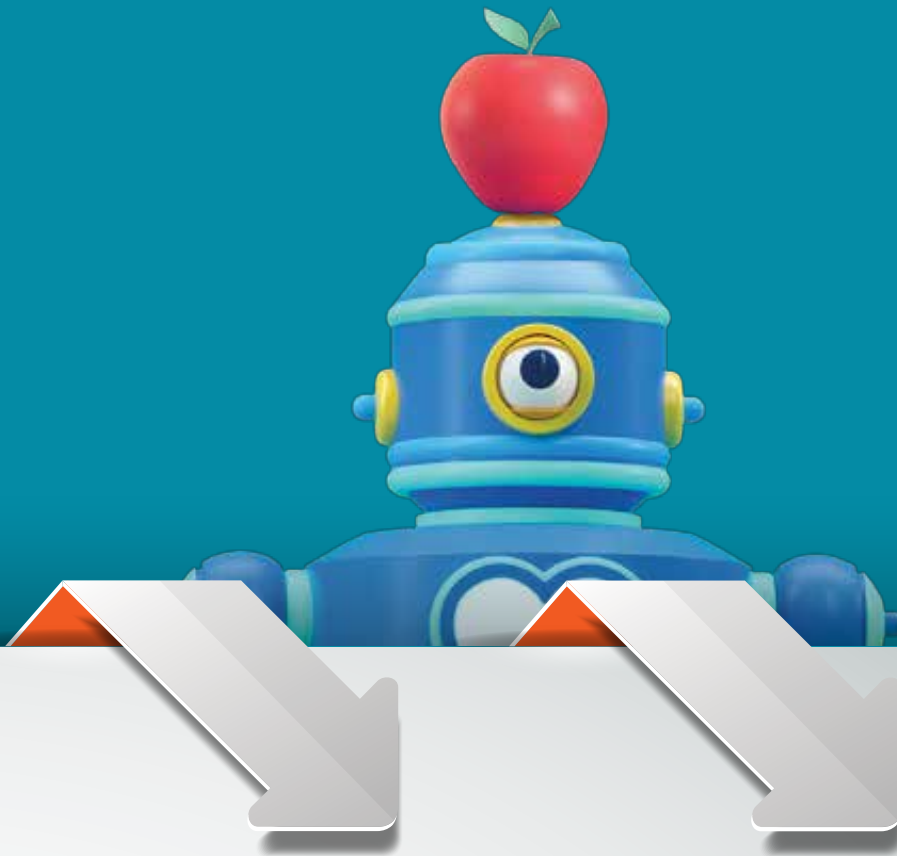
Securing Health

To brace oneself in fight against the pandemic, enquiries and sales of health insurance policies have gone up. This pandemic has witnessed huge demand in health insurance policies. There has also been significant rise in disease specific health plans.

Demand for Healthcare Jobs

Healthcare workers have been classified as frontline staff during COVID-19 crisis. These not only include doctors, but also nurses, hospital ward boys, technicians, pharmacists. Essential services continue to drive demand in medical and public health fields. Despite the temporary slowdown in the job sector, healthcare continues to be on top.

The New World of Fitness

The healthcare industry is on the frontline of the fight against corona virus and the pandemic is changing the future of healthcare industry. It has challenged the traditional working of the healthcare domain and pushed towards an expedited adoption of digital health.

Wrist Activity Tracker

It tracks calories burnt, heart rate and sleep quality. It can also send alert if you have been sitting too long.

Enhance posture with this device

This tiny device is your posture coach which vibrates whenever you slouch. Over time you will slouch less and back and neck pain will also be reduced.

Track fitness through your feet

The smart shoe gathers biometric data to diagnose potential diseases, analyzes performance metrics like pace, distance, steps and strides.

Get health insight with this smart fabric

Monitor heartbeats, view ECG, measure stress, blood oxygen levels, sleep pattern, with the help of biosensors attached to this fabric.

Ring it on

Smart rings can measure your vitals, monitor sleep and can also send you alert in case of inactivity. These are lighter, smaller and even look like jewelry.

Eyewear - Mzonitors real time performance

Gives athletes real-time performance feedback by displaying the data in front of user. Joggers and cyclists can monitor their speed, heart rate and much more. There is also an audio prompt which helps to hit training targets.
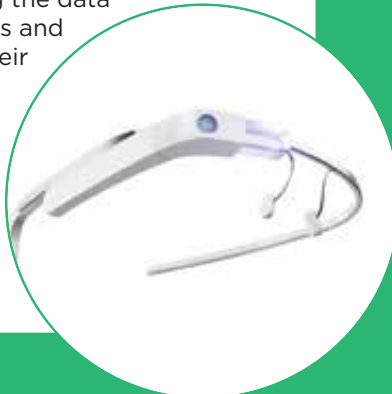
Run with a VIRTUAL AVATAAR!

Eyewears have the amazing capability for creating virtual running partner which can make your workout more effective and achieve your goals.

Feluda

India's first paper based testing strip for COVID-19

What is a Feluda test ?

Feluda - the COVID-19 diagnostic test has been approved by the Drugs Controller General of India (DCGI). Feluda stands for FNCAS9 Editor Linked Uniform Detection Assay. It is paper-strip diagnostic test, similar to pregnancy test kits.

How the strip works?

It can be conducted by taking a sample of saliva or blood. On the strip, there are two lines, one line is a control line which is present in every strip and other is test line which comes positive only if COVID-19 virus is present in the sample. In a negative sample, the test line will be invisible.

Who has developed this technology?

This paper based test strip has been developed indeginously by a research team from Council of Scientific and Industrial Research (CSIR) in association with a philanthropic company.

Feluda kit takes shorter time than the current technology.

It does not require heavy equipment. Hence it can be used in villages where the access is limited.

It is very cost effective since it does not require costly equipment and chemicals.

98%

The test has 96% sensitivity and 98% specificity in detecting the virus.

The name Feluda, is also a tribute to Satyajit Ray's well-known fictional character of the same name – a private detective in a series of Bengali novel.
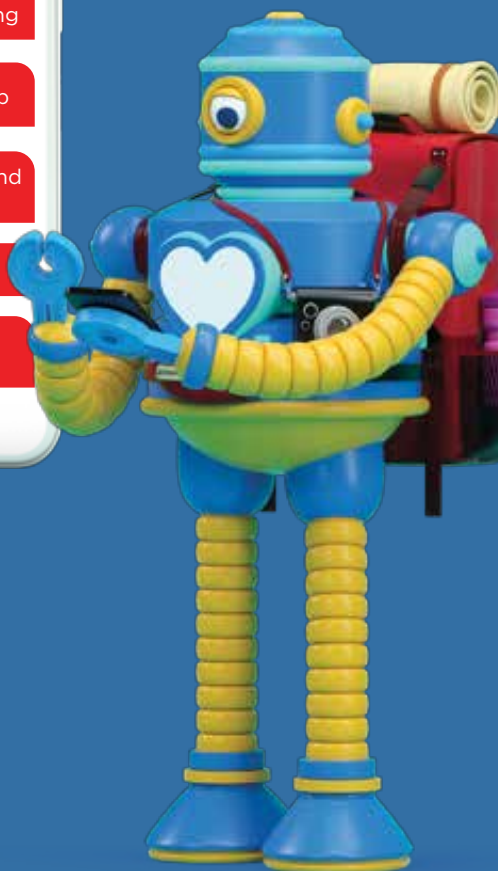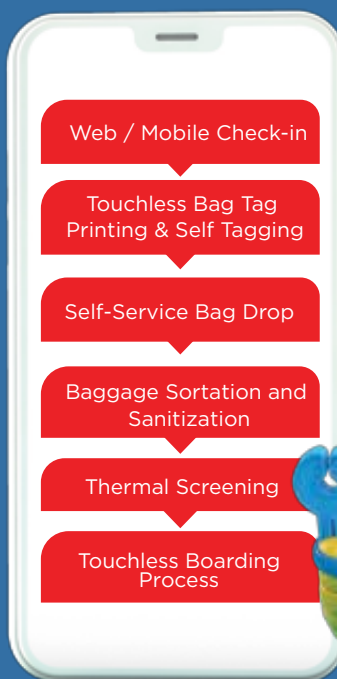
Travelling:
Rebooted

Travelling will never be same again! As the world slowly eases out of lockdown, hygiene and safety are being prioritized more than ever. Airports have introduced new measures to make air travel safer for their staff and travellers.

Touchless Travel

Face recognition technology, self boarding gates, digital health passports, contact tracing software are some of the game changers in the war against COVID-19, enabling passenger safety. The digital IDs stored on phones verified with facial recognition can be used to let passengers go through security. Health screenings can be done by using thermal scanning technology.

Sanitization is the new security

The number one feature which we all will be looking for when we start travelling won't be customer service or food but it will be cleanliness and sanitization. While the staff will ensure precautionary measures are followed, it is necessary for passengers to follow personal precautions.

Web / Mobile Check-in

Touchless Bag Tag Printing & Self Tagging

Self-Service Bag Drop

Baggage Sortation and Sanitization

Thermal Screening

Touchless Boarding Process

"Sanitagging" your bag

It means sanitizing the bags and tagging them once they have sanitized. The process involves disinfection of the baggage at the conveyor. It will then be marked to indicate they've been sanitized.

Quiz

How well do you know about DIGITAL HEALTH?

01 The portal started by Government of India for OPD registration in government hospitals.

- OPD Registration System
- Online Registration System (ORS)
- Hospital Registration System

02 Health Information System is a system that captures, stores, manages or transmits information related to health of individuals.

- True
- False

03 Aarogya Setu app has become the most downloaded COVID-19 contact tracing app across the world.

- True
- False

04 Walmart has partnered with Quest diagnostics to deliver at-home COVID-19 test kits by using drones.

- True
- False

05 MRI stands for

- Minimum Resonance Imaging
- Magnetic Resistance Imaging
- Magnetic Resonance Imaging

06 What does N stand for in N95 masks?

- Non resistant to virus
- Non resistant to oil
- Non resistant to dust

07 The telemedicine platform deployed nationally by Ministry of Health and Family welfare which provides doctor to doctor consultation and patient to doctor consultation.

- e-Doctor
- Telecare
- e-Sanjeevani
- Digital Swasthya

ANSWERS:
1) Online Registration System (ORS) 2) True
3) True 4)True 5) Magnetic Resonance Imaging
6) Non resistant to oil 7) e-Sanjeevani

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