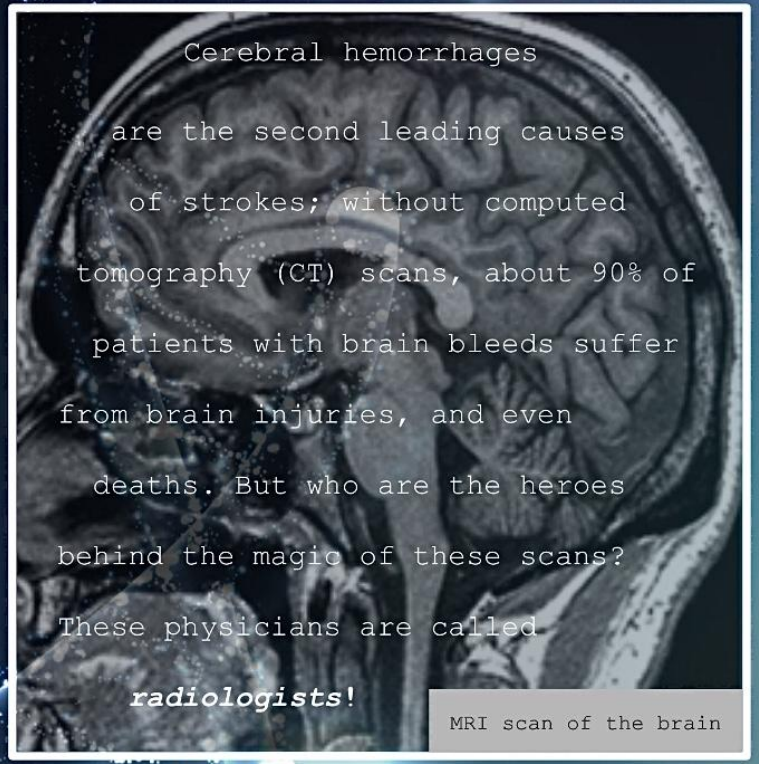
RADIOLOGISTS

Team 3383A - *Think Pink*
Middle School VEX IQ

head CT machine



Cerebral hemorrhages are the second leading causes of strokes; without computed tomography (CT) scans, about 90% of patients with brain bleeds suffer from brain injuries, and even deaths. But who are the heroes behind the magic of these scans? These physicians are called ***radiologists***!

MRI scan of the brain

As you read through this information, you will be enlightened with the knowledge of radiology and its relationship with competitive robotics, how this career field could significantly evolve over the next ten years, and how *Ian Donald* has strongly influenced medicine in this career field.

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What is a radiologist, and what does one do? Radiologists are clinical specialists that represent considerable authority in diagnosing and treating wounds, and illnesses utilizing clinical imaging strategies, such as X-rays, CTs, MRIs, PETs, and ultrasounds. "Today Howard's company, Enlitic, said it was going to start working with Capitol Health Limited, a radiology clinic with locations across Australia, to have its software look at X-rays" (Finley). Since 2016, numerous organizations have been attempting to innovate medicine. In particular, *Enlitic* was contemplating robots, intending to program them to examine human X-rays later on. This headway in innovation would have a significant effect on the adjustment in current medication; it would permit X-ray scans to be much more proficient and precise. A scholar's inclusion in serious competitive robotics might lead their effective fates to propel innovation like this in the future.

(human MRI scans)

(robot analyzing CT scans)

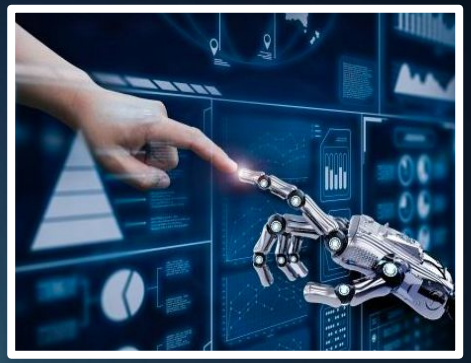
invention of the first Ultrasound

1952

medical technicians currently developing automated radiology

2020

Artificial Intelligence taking over radiology



2040 ?

"Ian Donald was an obstetrician who developed ultrasound diagnostics during the twentieth century in Europe." As depicted, Dr. Donald concocted one of the most radiant gadgets in medication: the ultrasound, a gadget used to develop pictures of delicate tissue structures, identifying blockages.

"As radiologists need to go through numerous images every day, it becomes inevitable that part of their job can be automated. When we can train algorithms to spot and detect many types of abnormalities based on radiology images…" (medicalfuturist.com). Demonstrating that if radiology is ever mechanized, this article depicts how radiologists will only need to zero in on crisis wounds: if radiology is ever automated with robot analyzers, radiologists will no longer need to examine innumerable patient scans, sparing them both time and exertion.

"As tech companies are betting the same machine learning process — training a computer by feeding it thousands of images — could make it possible for an algorithm to diagnose heart disease or strokes faster and cheaper than a human can" (Silverman). In this article, it is exhibited that future tech organizations are attempting to concoct new codes and calculations (AI) to examine and distinguish various radiology checks, giving them the ability to be limitlessly more precise and compelling.

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" Donald was concerned with the efficiency of the available neonatal respirators, as they established breathing rhythms independent of the infant's normal breathing pattern, often making it even more difficult for the infant to breathe. Donald developed an improved design for a negative pressure respirator" (*The Embryo Project*). With his worry upon an infant's precarious breathing pattern, Donald ingeniously built up a further developed model of the negative pressure respirator. His new development has saved endless newborn children up until this present day. Dr. Donald was doubtlessly one of the most splendid clinical specialists; with his amazing disclosures, incalculable lives have been given and changed by him. Radiology couldn't ever have been formed in the way in which it was if not for this splendid man.

Ian Donald (1952)

infant in a negative pressure respirator

Negative Pressure Respirator

Haylie's Experience

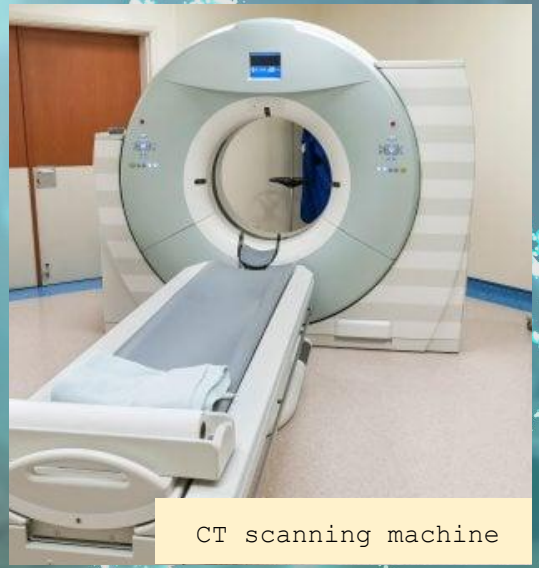
Team member, *Haylie* (11), says,

"It was a late evening when I was hurried to the nearest Emergency Room. After flipping on high bars during gymnastics training, I painfully fell and landed on my back. As soon as my ambulance arrived at the ER, dozens of medical specialists swarmed around me, and I was unable to move. In agony, my heart hustled when I heard the medical team discussing possible paralysis.

Immediately after the team rushed me into the Computed Tomography scanning room, I was sedated, lifted into another bed, and driven into the scan. The only remaining thing I could see after entering the sweep was blazing, neon lights. I panicked when I could scarcely recall what had simply occurred, but the warm-hearted specialists in the window up front, kindly reassured me. Despite the fact that they had advised me to keep still while the technology was producing my spinal images, my curiosity drove me to peeking out the wide gallery window. While quietly examining the room, I noticed two diligent radiology specialists, carefully investigating my spinal scans.

Fortunately, after my scans were quickly delivered from the CT machine, I was informed that I had only pulled my spine. I was handily given a spinal support brace, and my injury had successfully mended within short weeks. Without the assistance of these captivating radiologists and their innovation, my injury would've never been caught in time for it to thrive."

[Interviewed by team member, Joyce.]



CT scanning machine

To recapitulate, competitive robotics has a strong influence on the radiological field while it is quickly evolving as decades passby, and the great*Ian Donald* has dynamically influenced medicine in this career. Indicatively, radiology is a career made up of mechanization, which also explicates how radiology will advance as robots are soon to take over the career.

various head scans

MRI scanning machine

Likewise, Dr. Donald was one of the most exceptional designers upon many of the modern devices used in radiology, today. Overall, radiology plays a huge role in disease management. By account of robotics and technology, the radiological field has been given the ability to save countless lives, everyday.

“Dedicated to all the diligent, dedicated, and uplifting healthcare workers out there; the people who selflessly give themselves to others. Our hearts will always continue flowing with gratitude for you all. Thank you for caring for us during this strenuous time. We love each and every one of you, endlessly!”

– *Think Pink.*

(Joyce, Aarna, Athena, Haylie, and Naomi)

hardworking healthcare workers

Title: Radiologists

Created By:

Team 3383A - Think Pink

Members: Joyce, Aarna, Athena, Naomi, & Haylie

VEX IQ Middle School Division

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Citations, Sources, Credits

Credits: ***Radiologists*** **- 3383A,** ***Think Pink*** **(Joyce, Aarna, Athena, Naomi, Haylie)**

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