TAG AI CONSULT

Talal Abu-Ghazaleh Artificial Intelligence Consulting

TAG AI CONSULT Newsletter

Capturing the Power of Artificial Intelligence

Issue 14 - February 2020

MESSAGE FROM THE CHAIRMAN

Artificial Intelligence (AI) has gained grounds in the advancement of technologies and development of smart autonomous applications and devices in industries.

With rapid market shifts towards AI, businesses still cannot keep in pace with accelerating trends and growing professional divide.

We have a mission to achieve, bringing advancement of AI technologies to businesses and building AI capacities to facilitate and enhance business prosperities to capture profit and keep in pace with AI evolution.

Only with consulting support and guidance, AI technologies, applications, and standards for excellence can be re-enforced in the promotion of dynamic and flexible smart and autonomous business environments.

Google's latest AI project may aid wildlife conservation

AI project greenlit after reducing A&E attendances by a third

AI-based software is being used to diagnose coronavirus

Google's latest AI project may aid wildlife conservation

Biologists and conservationists across the world have got their hard drives stuffed with millions of camera trap photos and it's a time consuming process to go through all the images. Google has therefore announced a new program in partnership with several conservation organisations that simplifies the process by making use of artificial intelligence.

With the launch of Wildlife Insights, an online portal with more than 4.5 million photos dating back to 1990, anyone can access the photos and pinpoint the location of wildlife from anywhere. The site also gives the opportunity for collaborators to drop their own camera trap images in order to map wildlife across the globe and grow the database.

One of the major benefits of Wildlife Insights is the machine learning aspect that helps to analyze 3.6m photos in an hour which saves a lot of time of researchers.

Jorge Ahumada, executive director of Wildlife Insights from Conservation International said: "All they have to do now is upload a set of images and let the Google-created artificial intelligence system do the rest, including flag blank images that sometimes make up most of the camera trap data.

"The only main data point conservationists may have to add are the GPS coordinates for specific camera traps as most of these cameras aren't yet fitted with their own GPS system."

It will now also benefit conservation scientists by giving them ample time and resources to easily analyze and discover trends in species population size, predator-prey relationships, and how animals respond to human disturbances such as hunting. This new program can also help researchers to identify species in the photos, which they had to previously input manually.

"The program is now trained to accurately identify about 100 species," Ahumada added.
Currently, the program is still in beta.

Source: https://artificialintelligence-news.com/2019/12/18/google-ai-project-aid-wildlife-conservation/

AI project

greenlit after reducing A&E attendances by a third

An AI project which successfully cut A&E attendances by a third has been greenlit for a wider rollout.

Over 1,000 patients were involved in a trial of an AI system developed by Health Navigator at York Teaching Hospitals Foundation Trust over the last four years.

AI was used to identify patients at risk of unplanned hospital admissions. By highlighting these patients, nurses were deployed to help coach them over six months on how to improve their health and reduce the risk of visiting A&E.

The trial resulted in a 30 percent reduction in unplanned hospital admissions and a 25 percent reduction in planned admissions. With the huge pressure on the healthcare system, this reduction in admissions - particularly unplanned - helps to ensure resources are readily available for those who need them.

Fiona Bell, lead officer for primary care at NHS Vale of York CCG, said:

“High emergency admissions are a system problem, not just the responsibility of secondary care. A lot of people go to A&E if they are feeling anxious about their health or they need reassurance.

We needed to find a way to support these patients to help them understand their conditions better, make life changes which will improve their health and know which services to access when they need support.

From the local RCT, we found that 55% of patients felt much more engaged with their care, whilst 84% of people reported an improved quality of life and having more confidence in managing their conditions. These results are really impressive and have a huge impact on patients' everyday lives." A&E is the most important part of any hospital. Patients that come into A&E are often in life or death predicaments and efficiency is key to increasing the former being the most likely outcome.

Waiting times in A&E are often used as a measure of a hospital's performance and a marker of how well the healthcare service is performing overall. Lack of funding is often cited as a political reason for poor A&E waiting times, but other reasons such as unnecessary visits and preventable ailments are also significant causes.

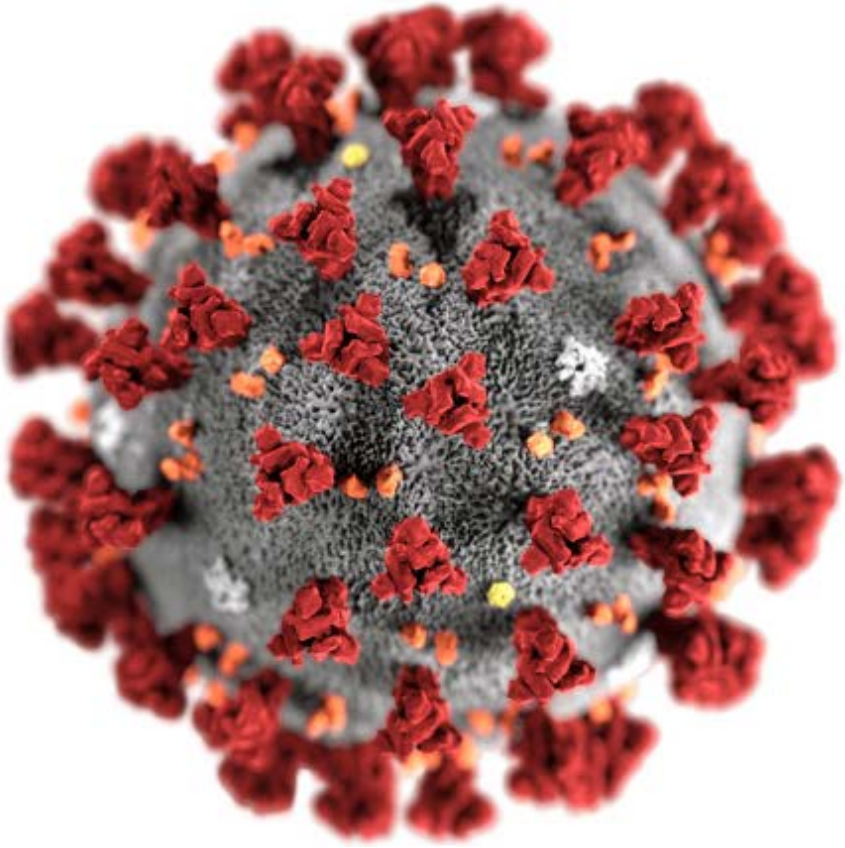
Health Navigator said it has been estimated that 25-35% of urgent and emergency care is avoidable and costs the NHS £6 billion per year.

The AI trial in York is also being conducted at five other NHS trusts (Mid Essex Hospital Services, Royal Wolverhampton, University Hospitals of North Midlands, University Hospitals of Derby and Burton FT, and East Kent University Hospitals FT).

Findings from the wider trial are set to be published in April 2020. If the results from the York trial can be replicated elsewhere; it will have a significant and positive impact on reducing growth in A&E attendances and non-elective admissions.

Source: **https://artificialintelligence-news.com/2019/10/28/ai-project-reducing-ae-attendances/**

AI-based software
is being used to diagnose coronavirus



After BlueDot's AI epidemiologist was one of the first to signal the outbreak of the coronavirus (Covid 19), another AI-based software developed by a Beijing-based startup Infervision, is now helping physicians diagnose it in Wuhan.

The software, developed in collaboration with Wuhan Tongji Hospital, helps detect typical and partial symptoms of Covid 19 by looking for signs of pneumonia. While the team already had models that detected pneumonia in place, after the outbreak of the virus, they were updated to look out specifically for coronavirus pneumonia.

To train the model, more than 2,000 CT images from the early Chinese affectees of the outbreak were analyzed using NVIDIA V100 GPUs. To develop the software, Infervision used NVIDIA Clara, which is an application framework for AI-powered medical imaging and genomics. For inference, the models employ NVIDIA T4 GPUs.

Infervision's software has been deployed in more than 34 hospitals across China and is currently under evaluation in the United States and Europe. So far, it has helped review more than 32,000 potential cases of Covid 19.

The AI-based software's primary advantage lies in the fact that since symptomatic patients are piling up in hospitals, its fast diagnosis can help triage the patients quickly. The software also fares well in cross-comparison and in analyzing the development of lungs over multiple examinations.

Source: https://www.neowin.net/news/ai-based-software-is-being-used-to-diagnose-coronavirus/

Talal Abu-Ghazaleh Artificial Intelligence Consulting
TAGUCI Building - 104 Mecca Street, Um-Uthaina, Amman, Jordan
P.O. Box 921951 Amman 11192, Jordan

For more information
please contact Mr. Shahid Halling, TAG AI Executive Director
at shalling@tagiti.com
Tel: (+962 6) 5509222 - Fax: (+962 6) 5509102