



European AI Alliance

[Home](#) [About](#) [Blog](#) [Forum](#) [Best Practices](#) [Documents](#) [Open Library](#) [Events](#) [Videos](#) [AI HLEG](#)

Important info

The login process has changed, please read [this page](#) if you have problems to login.

Access for members is now possible again but users who registered recently may have been blocked. Please contact us [here](#) if you are concerned.

After your register as a new member, your account will have to be validated before you can login. You'll receive a notification. Please be patient!

Sorry for the inconvenience, the Futurium team.

Forum



Jola DERVISHAJ

 26 May 2020 - updated 1 week ago

 1 comment



Total votes: 2

Using AI to fast and effectively diagnose COVID-19 in hospitals

The European Commission will invest in the use of Artificial Intelligence to speed up the diagnosis of COVID-19 and improve the future treatment of patients. A software developed to assist the work of medical staff by analysing images of pulmonary infections is introduced in 10 hospitals across Europe.



Artificial Intelligence (AI) is changing the way disease outbreaks are tracked and managed, helping medical practitioners and saving lives. In the area of **radiomics**, where a large number of medical images are used for the diagnosis and treatment of diseases such as COVID19, AI tools are providing new ways of getting a faster and more efficient diagnosis.

The European Commission is currently investing in the deployment of an AI tool that will allow the diagnosis of COVID-19 in less than one minute. The algorithm will use the images collected by a computerised tomography (CT) scanner (usually an integral part of a hospitals’ infrastructure) to detect COVID-19 suspicious cases. This technique will alert clinicians earlier about the pathology of the disease, easing the work of medical staff and helping them to treat patients faster and, at the same time, reduce the risks of cross-infection.

How does it work?

The tool collates the CT images collected from patients coming into a hospital with any indication (e.g. chest pain, tumor). These images are then processed to analyse lesions of ground-glass opacity and tissue density (which is the key finding of COVID related pneumonia) If the findings are positive, then an alert is sounded in less than one minute. Such alerts allow radiologists to prioritize the reading of the suspicious cases so that the potential COVID-19 patients can be identified and treated earlier. Moreover, thanks to a function that compares the prior and current CT images of the same patient, provides doctors with a direct view on the progression of the disease and thus, helps them deliver a better treatment plan for each patient.

Deployment

In order to help them deal with the current medical crisis caused by COVID19, 10 European hospitals will benefit directly from the use of this AI technique in their daily clinical work. These hospitals are located in Belgium, Estonia, France, Italy, Portugal, Romania, Spain, Sweden, and in the Netherlands and are now installing the tool while the medical staff is receiving basic training on how to use it.

The European Commission will invest in the cost of the deployment of the tool for one year, through the [Connecting Europe Facility](#). The whole process will provide valuable research feedback in a clinical setting on the use of AI in healthcare, based on medical evidence and concrete experience. This feedback will then serve to improve the uptake of AI in healthcare and will help to better orient EU research in AI.

Tags:

[#AI](#) [#eHealth](#) [#COVID](#) [#CT](#) [#Lungscan](#) [#ediagnostics](#)

Share this:

 Twitter

 Facebook

 LinkedIn

 E-mail

Comments

Log in to post comments



Juan LLORET,

26/05/2020 15:07

Thanks for sharing this information.

This issue is very topical, along with the use of data in pandemics such as Covid19 ... And it is convenient to have real highly qualified experts in the fields, or investments can be very unsuccessful for Europe. For example, using data below a minimum threshold (statistical sample universe) can lead to singularities and very dangerous identifications for citizens. Also trying to substitute qualified doctors and specialists (guided by medicine based on experience, the patient's clinic and the experience of the healthcare provider) with software or hardware can carry serious dangers ... In the USA this topic is already under the supervision of the FDA and highly monitored by international standards such as the IEEE. (For example, the Computer Society and others: https://editorialia.com/2020/05/26/r0identifier_20409d06b534bf1cd685334) If Europe walks slowly, it will be a serious problem for citizens and significant investment losses. On the contrary, if Europe walks too fast it can cause chaos in the profession of medicine, lightning technicians, radiologists, etc.

Regards, Juan Antonio.



Total votes: 1

Log in to post comments