



Patient's Moment Has Arrived



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It is clear that the COVID-19 crisis has been a boost in the digitisation of healthcare, as it is estimated that we have advanced almost seven years in digitisation in just three years. Many medical centres have chosen to digitise conventional processes of patient care, medical appointments and results delivery, performing virtual consultations to try and avoid unnecessary displacements and crowds in hospitals.

Many patients are benefiting from the technological solutions that are being implemented in their reference centres. In Idonia, we believe it is possible to go further and allow patients to be in control of all their medical tests, and to be able to organise, visualise and share them. Although it is too early to achieve our vision, COVID-19 has certainly made patients, professionals and medical centres more receptive to use technology that prevents displacements, avoids the use of physical elements (such as the CD) and allows patient-physician interaction virtually.

Idonia is a secure cloud service, which allows processing, storing, organising and visualising medical documents and images, thus aiding hospitals, insurers, professionals and the patients. Idonia began its activity allowing the delivery of medical tests without the use of the CD thanks to its Magic Link and a zero footprint image viewer (Figure 1), which allows to view all kinds of medical imaging tests (X-Rays, CTs, MRIs, ultrasounds, etc.) as well as any other medical document (PDF reports, images, videos, etc.).

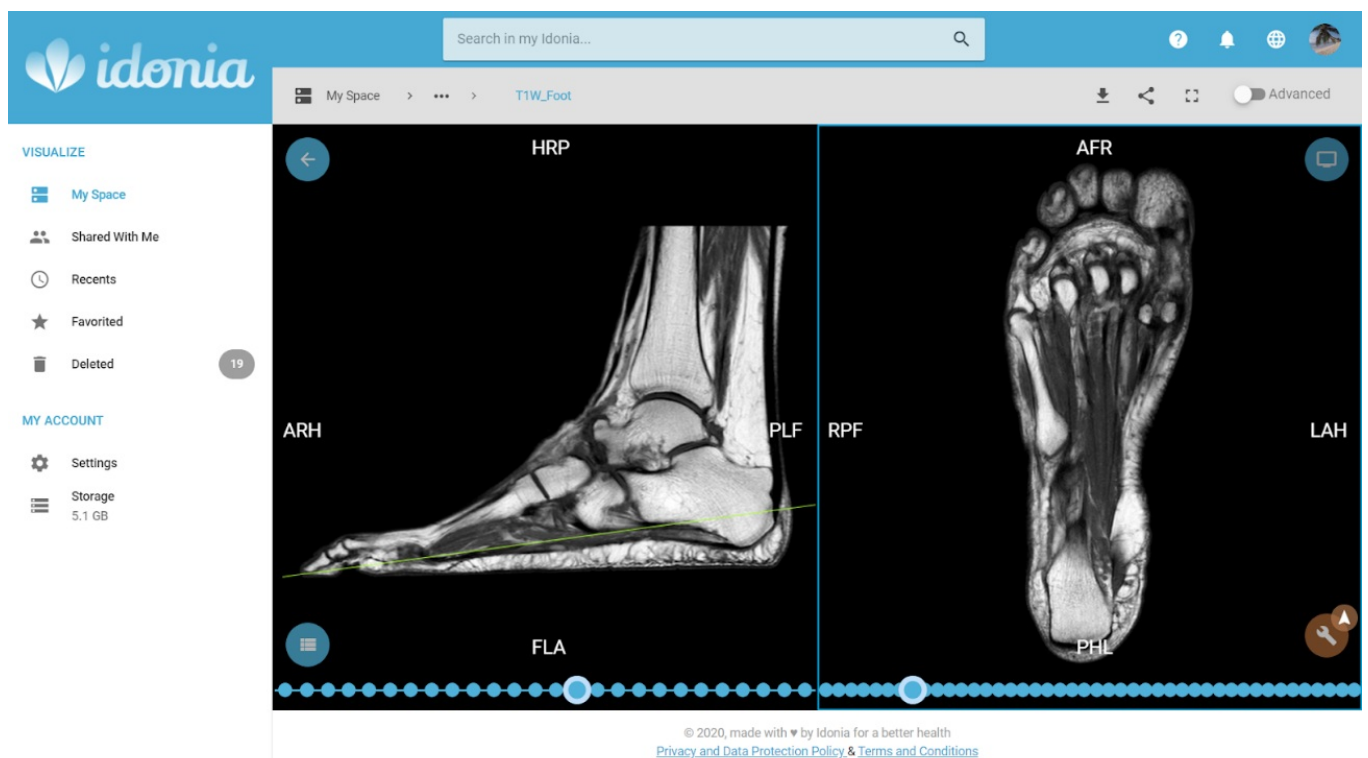


Figure 1. Idonia's image viewer

As a result of the current health crisis, Idonia wanted to contribute its grain of sand to the fight against COVID-19 by collaborating with hospitals, professionals and also directly with patients. The need of exchanging medical documents and images comes up in several scenarios between medical centres, institutions and patients, and the demand is increasing. Additionally, it is important to reinforce the use of professional tools instead of general ones that may not be covering health needs in workflow and data privacy issues. For this purpose, Idonia is based on a secure cloud infrastructure with security certifications (ISO27xxx) and local certifications to facilitate covering the legal requirements in each country of data privacy.



Figure 2. Idonia as a middleware in healthcare

One of the initiatives Idonia has undertaken is strongly linked to its purpose of empowering the final user, that is the patient. This is why the platform has been offered to individual users who want to have their medical documents in a secure cloud space. Once registered, patients can create their personal space, where they can store their documents and medical results. Thus, a patient who has had various medical tests, most likely some of them in multiple centres, could have a single space with all their results archived. For example, they could access, at any time and from any point with internet access, the X-ray that was done three years ago, the MRI that was delivered to them on a CD last month and the analysis from a specialised laboratory. This, in turn, gives the patient full control over their information with full capability to review and share.

Additionally, the patient can share their documents with their referring physician via email or the **Idonia Magic Link** system. It consists of a URL and a PIN that gives access to the medical study, which can be shared without registering. This enhances telematic consultations and allows the monitoring of treatments, avoiding unnecessary visits and displacements as well as reducing the risk of exposure to COVID-19.

In fact, Idonia is considered very useful by its users, as shown in the following two assessments:

"Now I have all my tests archived, unified and controlled for future controls and reviews. I can share all this information with my primary care doctor, thus facilitating the monitoring and recovery of my illness."

"I have a chronic back problem and I am treated in a hospital in Madrid. My family lives in Germany. During the corona crisis I moved to Germany and, thanks to Idonia, I could share my MRIs and tests with a doctor in Germany that took care of my back pain problem."

Idonia has also wanted to address the needs of families expecting a baby, who due to the confinement had to be separated during one of the most exciting stages of pregnancy. To achieve this union, the company has launched a feature, which allows users to share videos of the ultrasounds. This feature creates videos of the foetal ultrasound images and sends them to family members and friends via WhatsApp (with patient consent). This way, the obstacles imposed by distance are minimised, helping to combat emotional stress generated by COVID-19.

This platform can not only be used by patients but doctors can also take advantage of it by creating repositories of relevant clinical cases and sharing them with their colleagues, which ultimately contributes to the transfer and dissemination of scientific knowledge.

With this in mind, a collaboration with *contextflow* emerged. *contextflow* is a spin-off of the Medical University of Vienna, specialised in medical imaging artificial intelligence applied to lungs. They have developed a specially optimised algorithm to accelerate the evaluation of SARS-Cov-2 patient imaging for research purposes. This project counts on the help of Idonia to create repositories of patient CTs diagnosed as COVID-19 positive. Idonia, in turn, has promoted this collaboration by contacting its customers in order to enlarge the repository, organise the dataset and provide more cases to *contextflow* to keep training the algorithm.

Similarly, RadRounds, an American social and professional network with about 14,000 registered radiologists that aims to build relationships in clinical practice by connecting radiologists worldwide, has also started using Idonia as the system of exchanging documents and medical images to facilitate the collaboration, exchange and research of COVID-19. This collaborative network facilitates the grouping of COVID-19 positive cases and enables sharing with radiologists from all over the world, thus enhancing the exchange of knowledge and research of the disease.

TopDoctors, a global private medicine company, has also benefited from Idonia during the crisis. It has partnered with Idonia to create the TopDoctors Drive system which, accompanied by TopDoctors teleconsultation system, enhances virtual consultations and brings the doctor and the patient closer. Both doctors and patients of TopDoctors can use Idonia as a Medical Drive for a two-way exchange of medical documentation.

Thus, the need for patients to store their documents and for hospitals to have a more advanced technological system of results delivery than the conventional one has made the use of Idonia significantly grow, increasing both the number of registered users (near 12,000 users) and the number of medical centres that have decided to implement Idonia as a digital exchange system of medical documentation. Idonia has reached about 4 million exchanged radiology tests.

To continue supporting the COVID-19 efforts for hospitals and professionals, Idonia keeps special offering conditions. Healthcare professionals can benefit from Idonia to facilitate secure exchange of medical documents with patients during virtual consultations and also to deliver radiology tests and images by using Idonia instead of CD/DVD. Please contact sales@idonia.com for more info.

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