Press Release

Pixyl, the startup at the cutting-edge of brain imaging analysis for healthcare.

Pixyl has developed a new software solution for medical research designed to extract the maximum amount of information contained in MRI brain scans (Magnetic Resonance Imaging). This solution specifically locates, identifies and quantifies, from MRI sequences, a broad range of brain lesions related to pathologies such as multiple sclerosis, brain trauma, cerebrovascular accidents and brain tumours. Pixyl thus opens up new possibilities for the use of these imaging resources whose potential has hitherto remained under-developed in the biotechnology industry.

According to Senan Doyle, CEO of Pixyl, "MRI scans of the brain contain an enormous amount of information which experts have hitherto been unable to tap into due to a lack of time or suitable tools, which is why we decided to create Pixyl. The aim is to transfer our research on MRI analysis to the industry and make it as widely available as possible."

A new tool for detailed quantitative analysis of MRI brain scans

The tools developed by Pixyl can automatically identify and measure healthy tissue and lesions, thereby making it possible to accurately and reliably monitor the evolution of pathologies, whether they are being treated or not.

Such precise quantitative analysis will enable clinical trial sponsors and organisers to overcome two problems encountered by medical experts: the fact that their manual delineations are difficult to reproduce and the difficulty in visually detecting fine nuances in scan images.

The solution is distinctive in that it locates the region of the lesion and then classifies it into sub-regions to calculate the volume of each sub-region. To do this, Pixyl’s solution uses statistical modelling algorithms based on advances in neuroimaging, classification and distributed computing.

A new innovative startup for Inria

Inria aims to have an economic and societal impact based on its scientific success. In the digital science sector, to transfer its research results to industry, Inria promotes the creation and support of startups. In the last 30 years, more than 120 innovative technology companies have been developed based on research work led by Inria.
Pixyl

Pixyl, a startup incorporated on 16 March 2015, is the outcome of several years of research and collaboration between Inserm and Inria which have resulted in the development of analysis software for medical imaging. The cutting-edge technology developed by Pixyl has received backing from the IT-Translation investment fund which invests in and co-founds digital technology startups stemming from public sector research. Pixyl is based at Inria and currently employs 3 people.

Inria

Inria, the research institute dedicated to Computer Science, promotes "scientific excellence at the service of technology transfer and society". Inria's 2,700 employees are graduates from the world's top universities. Their work involves rising to the challenges of Computer Science and Mathematics. Thanks to its open and agile model, Inria is able to explore new and original ways of working with its industrial and academic partners. This enables the Institute to be highly responsive to the multidisciplinary and applicative challenges of digital transition. Inria researchers have developed many innovative technologies that create value and jobs.

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