



UNIVERSITÉ
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PRESS RELEASE

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Terre des hommes
Aide à l'enfance.

Artificial intelligence to save children's lives

Over the past four years, four million medical consultations have already been digitized in Burkina Faso using a simple tablet. The collected data will allow for real-time epidemics monitoring and allow to better target training needs.

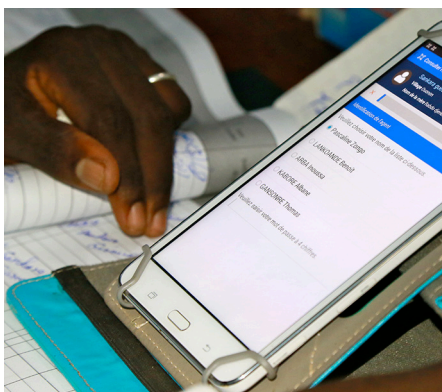
The University of Geneva (UNIGE), Switzerland, and Terre des hommes have recently signed a memorandum of understanding to strengthen their collaboration. Amongst other goals, it aims at improving the diagnosis of childhood diseases and thus saving lives. This new collaboration finds its first practical application, supported by the Cloudera Foundation, which seeks to integrate artificial intelligence into a health project carried out in Burkina Faso by Terre des hommes, the leading Swiss child relief organisation.

«We started by digitizing the WHO clinical protocol for consultations and diagnoses for children under 5 years of age. The application we relied on for this task is now used in more than 700 rural clinics and 1.7 million children have already benefited from it. Thanks to this new partnership with UNIGE and the Cloudera Foundation, we will now introduce artificial intelligence technologies in connection with our application. We will thus be able to improve the individual follow-up of more than 4000 health workers and carry out epidemiological surveys, thanks to intelligent and predictive models based on Big data,» notes Thierry Agagliate, Head of Innovation at Terre des hommes.

Making data meaningful

«Terre des hommes collects the data while Cloudera masters the technology. Thanks to its academic skills in the fields of big data, epidemiology and implementation sciences, UNIGE acts as a bridge between the two and can give meaning to the data. It provides assistance for analysis and can suggest new paths for the improvement of tools used in the field», explains Professor Antoine Geissbuhler, head of the medical informatics research group at the UNIGE Faculty of Medicine and head of the e-health and telemedicine Department at the Geneva University Hospitals (HUG).

4 million consultations have already been carried out with the Integrated e-Diagnostic Approach (IeDA) tablet application. In addition to monitoring epidemics, artificial intelligence will make it possible to measure the performance of each health worker. Diagnoses of entire health districts will also be accurately assessed. Data analysis will therefore make it possible to identify gaps and target interventions as needed. As a partner in the project, the Ministry of Health of Burkina Faso will be able to react quickly and take appropriate measures.



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1.7 million children have already benefited from this new technology, which will be taken to a new level thanks to artificial intelligence.

High resolution pictures

A bridge between the academic world and NGOs

This innovative project, called AI tool for leDa, was made possible through the financial and technological contribution of the Cloudera Foundation. It combines UNIGE's academic research and the field practice of Terre des hommes. Strengthening the bridge between the academic world and international and non-governmental organisations is precisely the objective of the Geneva Science-Policy Interface (GSPI), launched this autumn by UNIGE with the support of the Swiss Federal Department of Foreign Affairs and in partnership with other academic institutions. The GSPI has thus helped to translate and formulate the scientific needs expressed by Terre des hommes «which has integrated into its way of working a strong dimension of innovation and collaboration with the academic community», says Nicolas Seidler, Director of the GSPI. «We look forward to continuing our collaboration with them and to playing our role as an interface in other areas of mobile health, migration and children's rights.»

The AI tool for leDa project is supported by the Cloudera Foundation, the philanthropic arm of Cloudera, a Silicon Valley company specializing in data analysis and machine learning in the cloud. It provides funding of up to \$640,000 and also provides software and technical expertise. «The humanitarian sector is just learning how to harness the power of data to take on major global challenges, and we are eager to play a meaningful role in advancing that work», concludes Claudia Juech, CEO of the Cloudera Foundation.

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