



Digital innovation, inclusion, access to information

The health and economic crisis currently hitting France is totally changing our habits and our points of reference. While the information transmitted by the media enables a large number of individuals to understand this exceptional situation and to find answers, persons with intellectual disabilities do not have access to this multiple and complex information.

Facing this situation, Unapei member associations have produced numerous documents in Easy to Read and Understand (ETR, FALC in french) since the beginning of the crisis. A step towards the accessibility of information...while waiting for the launch of the Cap'FALC project: a new digital tool developed thanks to the skills of Inria, Facebook Artificial Intelligence Research and Unapei.

Cap'FALC aims to significantly advance access to information for all and to facilitate the participation of persons with intellectual disabilities in the society.

Access to information: a major societal challenge for persons with intellectual disabilities

In this period of crisis, every citizen needs to know what to do to protect himself, to understand his rights, to be informed about the reality of this complex situation. And as proof: television news channels are enjoying their highest ratings of the decade. But this information is still very often inaccessible to persons with intellectual disabilities.

A truly supportive and inclusive society must allow persons with intellectual disabilities to be citizens like others, and in particular to be informed. This is the objective of the ETR method, developed in 2009 by European associations of persons with intellectual disabilities and their families. This method allows the information to be accessible to all persons who have difficulties in understanding. It is based on the expertise of persons with disabilities and implies that they are at the heart of the production of written material in easy to read and understand.

Also, since the beginning of the health crisis, the Unapei member associations produced and published documents in ETR: national authorisation to go out during the lockdown, information on the coronavirus, explanations of barrier gestures. And today, clarifications on the deconfinement and on the realization of the tests. These documents in ETR relayed on the site <https://unisetSolidaires.unapei.org/>, by the Government and by certain media have enabled many persons with intellectual disabilities to better understand the period of confinement. The Secretary of State for persons with disabilities has also already published two ETR documents, accessible on www.handicap.gouv.fr, one on the new rules associated with deconfinement and the

other one designed to help persons with disabilities to choose between remaining confined or deconfining after 11 May.

Cap'FALC, a digital tool for an inclusive society

Until today, many associations, including 15 sheltered workshops in the Unapei network, have developed an activity of transcription of texts in ETR by workers or volunteers with disabilities. These associations regularly transcribe texts entrusted by companies and administrations to make them accessible to all.

However, the number of writings available in ETR remains insufficient! In view of the absolute necessity to improve access to information for all, it becomes essential to facilitate the work of transcribers in ETR.

Cap'FALC's objective is to develop an accessible digital tool that meets this precise need by facilitating the production of texts in ETR thanks to a transcription aid algorithm. The research project used to develop the tool is the subject of a thesis supervised by INRIA and Facebook AI Research. *"What I particularly like about this project, in which I am currently working to develop the algorithm that will be used by Unapei, is the fact that it puts cutting-edge research in Artificial Intelligence at the service of inclusion,"* says **Louis Martin, PhD student in charge of developing the tool.** *"It's motivating to know exactly what my research will be used for and to be able to make it evolve according to the needs of the persons who will use it."*

The Cap'FALC project aims to reduce the isolation and exclusion of persons with intellectual disabilities by improving the accessibility of information through the generalization of Easy to Read and Understand (ETR). This project will be operational in 2021.

"The ETR is a kind of universal language that speaks to everyone. Initially designed to enable persons with intellectual disabilities to understand certain texts, it has proved to be a formidable driving force for dyslexic and visually impaired persons, but also for foreigners with poor language skills, illiterate persons, the elderly and primary school children. Europe has been involved in the ETR since 2009 with the mission of reducing the social divide linked to language." **said Sophie Cluzel, Secretary of State for Persons with Disabilities.**

Persons with intellectual disabilities at the heart of the Cap'FALC project

Persons with intellectual disabilities are fully involved in the project at all stages of its development. Their experience in transcription and their expertise in its use are indispensable.

"Unapei and its associations have always been pioneers in making information accessible to persons with intellectual disabilities. At a time when demand is growing, Cap'FALC will make it possible to meet that demand while capitalizing on the user expertise so essential for persons with disabilities in the production of texts in ETR for a more accessible and inclusive society," **said Luc Gateau, President of Unapei.**

"This is a very important project for the Facebook AI Research teams. In our fundamental research laboratory in artificial intelligence, we seek excellence in our work, but above all, we want these advances to serve the common good and be put

to work for everyone. We are delighted to be a founding partner of this unique project and look forward to seeing the first results. Cap'Falc will have a very concrete impact on the daily lives of thousands of persons in France." **Antoine Bordes, Director of Facebook AI Research.**

The algorithm uses the latest advances in artificial intelligence and language processing for the ETR transcription task. This research work, carried out by Inria and Facebook AI Research, has already resulted in several scientific publications presented at international conferences.

This algorithm will work in a similar way to a spell checker, which finds passages in a text, proposes solutions but does not correct without human validation. Thus, while the tool developed will be a valuable aid for persons with disabilities responsible for transcribing texts into ETR, it will in no way replace their intervention at all stages of the writing process; it is their eyes that validate a text as accessible and easy to read and understand.

Placed under the sponsorship of the Secretary of State for persons with disabilities, the Cap'FALC project brings together Unapei, the main French associative movement in the intellectual and cognitive disability sector, Inria, the National Research Institute for Digital Sciences, and FAIR, Facebook's artificial intelligence research laboratory. The project is supported by Malakoff Humanis via the CCAH (Comité national coordination action handicap).

About Unapei

Unapei is a citizens' movement that has been working for 60 years to ensure that persons, regardless of the uniqueness of their disability, have access to the same rights as everyone else. Unapei is committed to a society of solidarity, inclusiveness and respect for differences and the free choice of persons with disabilities. Its network of 550-member associations innovates in all the territories and builds progressive support solutions adapted to each stage of the life of persons with disabilities to act against isolation and social exclusion. Unapei brings together 900,000 persons with disability, families, friends, professionals, carers and volunteers.

About Inria

Inria, the National Research Institute dedicated to digital sciences, promotes scientific excellence and transfer to have the greatest impact. It employs 2,400 persons. Its 200 agile project-teams, generally joint with academic partners, involve more than 3,000 scientists to meet the challenges of computer science and mathematics, often at the interface of other disciplines. Inria works with numerous companies and has supported the creation of more than 160 startups. The institute is thus striving to meet the challenges of the digital transformation of science, society and the economy.

About Facebook Artificial Intelligence Research

Within Facebook, Facebook AI Research (FAIR) is a true research laboratory whose mission is to advance the state of the art in the field of artificial intelligence through open and collaborative research that benefits the entire scientific community. Inaugurated in June 2015, FAIR Paris is Facebook's European Artificial Intelligence Research Center and today has 80 researchers, engineers and PhD students with international profiles.

FAIR teams are working on long-term research projects in the fields of language understanding, image recognition and new AI learning methods. With teams located in Paris, New York, Menlo Park, and Montreal, FAIR currently has about 350 researchers and engineers worldwide.

About Malakoff Humanis

Malakoff Humanis, a major player in social protection, was created in January 2019 from the merger of the Malakoff Médéric and Humanis groups. Malakoff Humanis is a joint, mutualist and non-profit organization, which puts its performance at the service of social utility and devotes more than €160 million each year to support person in socially fragile situations. <https://www.malakoffhumanis.com/>. Malakoff Humanis is a member of the CCAH, an association recognised as being of public utility. The Comité national Coordination Action Handicap (CCAHA) brings together all the social protection groups, mutualist actors, companies and national disability associations. It brings together their energies, knowledge and resources to help improve the lives of persons with disabilities. www.ccah.fr.