In critical real-world environments, professionals have to make provisional assessments of the situation based on partial and uncertain information. This context is favorable to fixation errors, i.e. not updating the assessment of a situation or persisting in an action plan that is no longer appropriate. These errors are a major cause of adverse events and accidents in healthcare and commercial aviation. The IDEFIX project aims to study how Artificial Intelligence and Virtual Reality can help professionals in critical situations, such as airline pilots and healthcare professionals, detect and develop strategies to mitigate such fixation errors (which regroup several types of erroneous diagnoses of the situation). To this aim, we will study the behavior of pilots and healthcare professionnals in simulated environments, build a formal model of the situation, develop a logic-based assistant that can identify possible fixation errors, and assess the impact of such a device on the operators' performance. A multidisciplinary approach will be adopted, combining human sciences (human factors, psychology) and computer science (artificial intelligence, human-computer interaction, virtual reality for training). Our contributions to human sciences concern the understanding of mechanisms underlying fixation errors. Our contributions to computer science concern the design of a formal model of human error diagnosis and its use for training in virtual and augmented reality environments. This project aims at increasing human safety in the fields of commercial aviation and health.

From:
https://anr-idefix.lisn.upsaclay.fr/ - **Projet ANR IDEFIX**

Permanent link:
https://anr-idefix.lisn.upsaclay.fr/doku.php?id=start-en&rev=1723386820

Last update: **2024/08/11 16:33**