COMPRISE

Towards the next generation of voice interaction technology

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The scientists from the COMPRISE project are giving themselves three years to develop the next generation of voice interaction technology. It will be more affordable, inclusive and, above all, secure. The COMPRISE project (Cost-effective, Multilingual, Privacy-driven voice-enabled Services) is a Research and Innovation Action (RIA) funded by the European Union's Horizon 2020 programme, and led by Emmanuel Vincent, a researcher at Inria Nancy-Grand Est. The six international partners in the consortium recently met in Paris to officially start the project.

Towards innovative voice interaction technologies
Voice-operated technologies and tools have multiplied in recent years: from Amazon's Alexa to voice-controlled radios or TVs, voice is rapidly replacing touch or text as the main means of interaction with modern devices. COMPRISE aims to support, and even lead on, this expansion by providing the tools and methodology to make voice interaction more secure, more cost-effective, and more inclusive for a variety of languages.

Due to the cost of voice data collection and labelling, current voice interaction technologies have a strong bias in favour of languages with a wider user base (such as English), thus potentially excluding some users. In addition, they often rely on cloud-based algorithms to analyse voice signals, but there are few guarantees (if any) regarding how data stored in the cloud is used and will be used in the future by these companies. The scientists will rely on deep learning methodologies to improve speech-to-text and machine understanding of different languages. In addition, they aim to create a methodology that will protect the users' data, in order to ensure their privacy.

"User's trust and security are essential to ensure that innovative and disruptive technologies can emerge and spread widely," explains Emmanuel Vincent. "We aim to develop the technical tools and methods to make voice-interaction innovations a reality for the wider public."

Such innovations are expected to provide a strong basis for SMEs and European companies at large to design new services and expand.

An international and industry-oriented consortium
The COMPRISE project will last for 36 months. It will be led by Inria, and involve the following organisations:
·   Institut National de Recherche en Informatique et Automatique (Inria - France) www.inria.fr
·   Universität des Saarlandes (Germany) www.uni-saarland.de/nc/startseite.html
·   Netfective Technology SA (France) www.bluage.com/about-us
·   Ascora GmbH (Germany) https://ascora.net/
·   TILDE SIA (Latvia) www.tilde.com/
·   Rooter Analysis SL (Spain) www.rooter.es/

More information related to the COMPRISE project is available on the project's website:
 www.compriseh2020.eu

Additionally, you can learn more about COMPRISE on social media:
LinkedIn: https://www.linkedin.com/company/comprise-h2020
Twitter: https://twitter.com/compriseh2020

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