



## Press Release

### **A Global First: CAE and Tech3Lab to use Neuroscience and Big Data to Improve Performance of Aircraft Pilots**

- **Collaborative agreement to conduct innovative applied research in the area of user experience (UX) to improve performance of aircraft pilots**

**Montreal (Canada), September 12, 2017** – CAE, a world leader in pilot training, is joining forces with a leading user experience research lab in North America, HEC Montréal's Tech<sup>3</sup>Lab. Biometrics, neuroscience and big data analysis will be used to study behaviors in a training context and identify high performance factors.

This agreement will significantly advance the research on user experience for aircraft pilots in flight simulators. The partnership was made possible through the Institute for Data Valorisation (IVADO).

"We are very pleased with this historic partnership between CAE and Tech<sup>3</sup>Lab. Thanks to the expertise of this seasoned team, in collaboration with the knowledge of our employees in engineering and our pilots, we will be able to analyze the key factors for effective training in flight simulators with unprecedented quantitative depth," said Marc St-Hilaire, Vice President of Technology and Innovation at CAE.

"This exciting project brings new challenges to UX research as well as concrete research questions," said Sylvain Sénécal, a professor at HEC Montréal and Co-director of Tech<sup>3</sup>Lab. "There is no doubt that this partnership with CAE will expand knowledge in this area, benefitting both the industry and the scientific community in general."

"We are thrilled with this important partnership with CAE," stated Robert Gagné, Chairman of the board of directors for IVADO and Director of Research at HEC Montréal. "I look forward to the results of this very promising research project. Once again, Montreal is proving to be on the cutting edge of technological research."

"Training is at the core of CAE's business, and here we have a concrete example where big data and the latest technologies could revolutionize training and ensure that the user experience in flight simulators garners the best possible results. Ultimately, this will allow us to optimize pilot training and improve passenger safety as a whole," said Marc St-Hilaire.

[Click here](#) to consult a [video of this announcement](#).

Photos are available at [www.cae.com/photos](http://www.cae.com/photos)

### **About CAE**

CAE is a global leader in training for the civil aviation, defence and security, and healthcare markets. Backed by a 70-year record of industry firsts, we continue to help define global training standards with our innovative virtual-to-live training solutions to make flying safer, maintain defence force readiness and enhance patient safety. We have the broadest global presence in the industry, with more than 8,500 employees, 160 sites and training centres in over 35 countries. Every year, we train more than 120,000 civil and defence crewmembers and thousands of healthcare professionals worldwide. [www.cae.com](http://www.cae.com)

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### **About Tech3Lab**

A teaching and research laboratory at HEC Montréal and member of the Institute for Data Valorization (IVADO), Tech3Lab is a leading user experience laboratory (UX) in North America. Tech3Lab is an applied research laboratory in management sciences that specializes in analyzing the interactions between the technological interfaces of organizations and their employees or end-users. Its mission is threefold: to carry out applied research in the domain of user experience (UX); create new UX research tools for industry and researchers; and train UX research professionals for both industry and scientific research.

### **About IVADO**

Founded by the Université de Montréal, HEC Montréal and Polytechnique Montréal, IVADO aims to bring together industry professionals and academic researchers to develop cutting-edge expertise in data science, operational research and artificial intelligence. In practice, IVADO encourages knowledge exchange and sharing among the specialists, partners, researchers and students in its network. The objective of IVADO is to be the bridge between varied academic expertise and the needs of businesses, from multinationals to start-ups. With over 1,000 affiliated scientists (researchers, postdocs, doctoral students and research officers), IVADO is a centre of advanced multidisciplinary skills in statistics, business intelligence, deep learning, applied mathematics, data mining and cybersecurity.

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