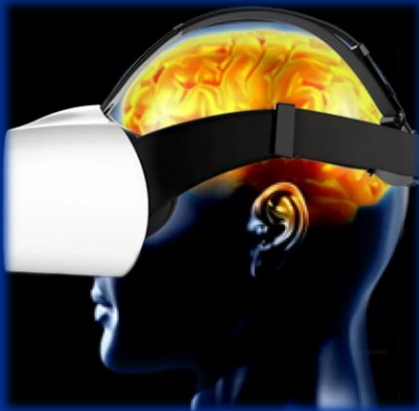


The crucial role of Learning Companions



Claude Frasson
University of Montreal
Department of Computer Science

TAIWAN - 11, 2023

Artificial Learning Companions: Past, Present, and Future

The origin: Studying with the Prince



Tak-Wai Chan
Arthur B. Baskin , ITS 88, Montreal

Learning Companion

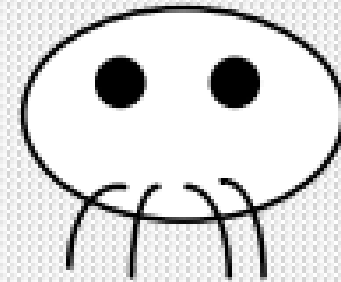
- Learner Companion Teacher



Learner



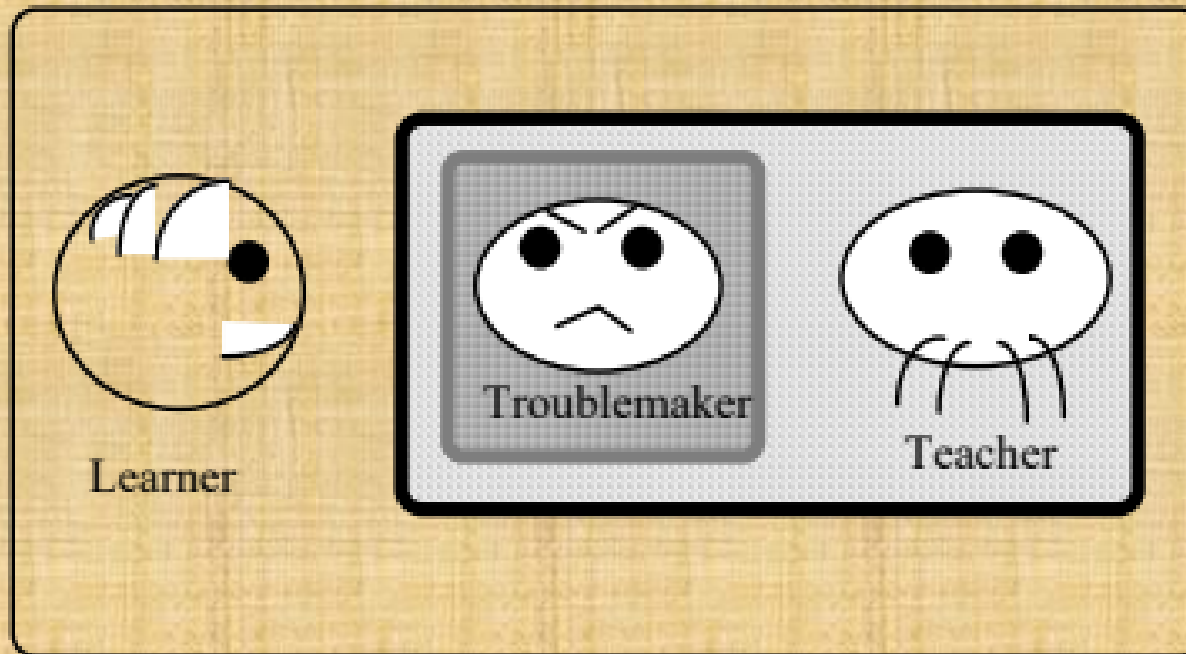
Companion



Teacher

Learning by disturbing

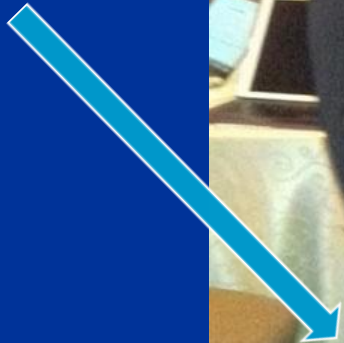
- [Aimeur, Frasson, 1996]



The present of AI



AI



Augmented Intelligence

or

AI ?

Yoshua
Bengio,
Turing
Award 2019

Augmented Intelligence



Companion



Cognitive
Task

Advices, explanations just in time,
relaxing emotional conditions,
virtual environments. Etc...

**improve the
cognitive
state of the
Brain**

PILOT-AI : a super Pilot companion

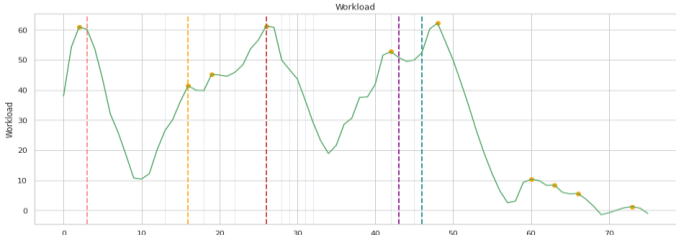
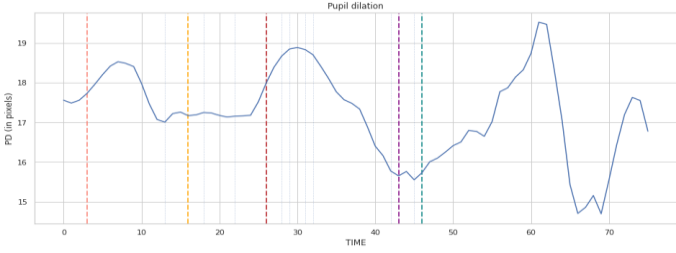
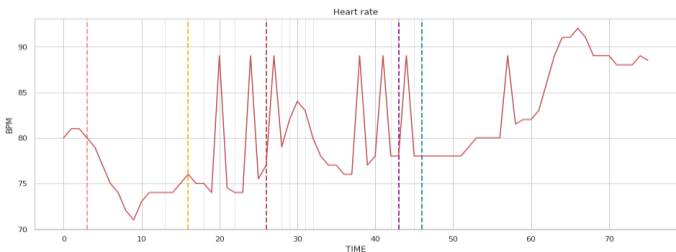


Pilot Companion



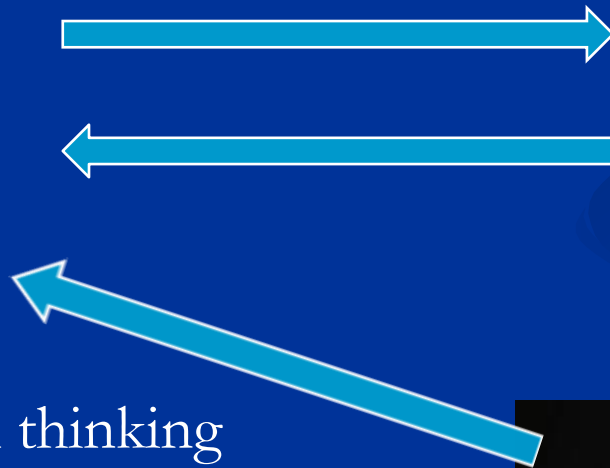
Flight output: pilot 5, flight 6, scenario 4

- engine failure
- Release parking brake
- Thrust 100%
- ECAM Actions
- Pilot confirms
- HL
- UPD
- WORKLOAD



The future of companions

- Generative intelligence acts as a trouble maker

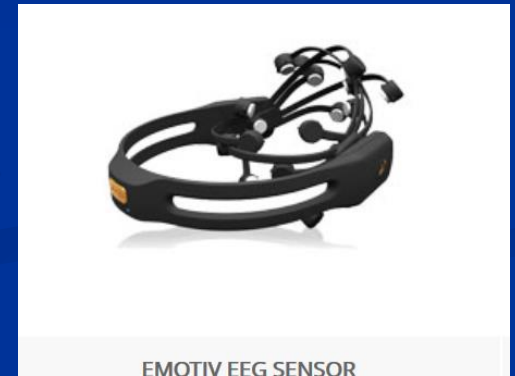


Provokes critical thinking
Encourages double check
Develops user self confidence





Thanks for your attention



EMOTIV EEG SENSOR