TAMED CLOUD — Sensible interaction with a swarm of data

The volume of data to consider has reached a critical threshold. Traditional visualization techniques fail to simultaneously allow an access to specific pieces of information, provide a comprehension of grand ensembles, and favor the discovery of unexpected associations. For this reason, new visual representation models are to be conceived. Such models should include possibilities for interactive manipulation and processing of these large sets of data, to tailor experiences better adjusted to the body dimensions and to the spaces derived from them. This is the reason why artists and designers, as researchers, have a major role to play in such endeavors.

The 'Tamed Cloud' project aims to create an aesthetical, sensible and affective relationship with a set of data under the guise of a cloud, living and pliable, similar to a swarm of birds. Tamed Cloud proposes an immersive experience in virtual reality, with the possibility to interact with an ensemble of pictures from the MoMA*'s collection, according to gestural and postural modalities as well as voice conversation thanks to the IBM Watson Cognitive Platform. The user, acting as a researcher, a collector, or a curator, can select groups of data, peruse them, organize them spatially around himself. The behaviors implemented in the cloud favor certain comparisons and fortunate associations, thus meeting the objectives of access and discovery with respect to large masses of data.

The 'Tamed Cloud' project is the product of a collaboration between EnsadLab, the research laboratory of EnsAD-PSL and IBM. It is part of the actions taken by the Institut Cognition on the topic 'Artificial and Cognitive Intelligence,' a domain of research concerned with the articulation of quantitative data with biological, biomechanical and psychologic models of human behavior.

An IBM / EnsadLab (laboratoire de l'École nationale supérieure des Arts Décoratifs, PSL Research University) project

Proof of concept designed and realized under the direction of **François Garnier** (EnsadLab), in collaboration with **Fabienne Tsaï** (EnsadLab), **David Bihanic** (EnsadLab), and **Florent Levillain** (EnsadLab), as part of a research partnership with IBM and in collaboration with IBM Europe Human Centric Innovation Center team

Directors of the IBM / EnsadLab partnership: **Marc Yvon**, head of IBM Human Centric Innovation Center, **Emmanuel Mahé**, head of research EnsAD, and **Célestin Sedogbo**, head of Institut Cognition

IT development (EnsadLab): **Dionysis Zamplaras** and **Léon Denise**

Scientific advisor : **Jean Lorenceau** (Institut de la Vision)

*Museum of Modern Art