

Olivier Palmieri

Game Director/Director of L'Atelier XR – Ubisoft Montréal

Olivier Palmieri has been working for Ubisoft for 20 years, 13 in Montréal. As Game Director, he was involved in the development of franchises that made Ubisoft the giant studio it is today: *Rayman*, *Ghost Recon*, *Assassin's Creed* or *Far Cry*. Olivier also trains Canadian and international teams in rational design, a key creative approach shared internally at Ubisoft. Passionate about the combination of science, technology and video games, Olivier set himself the challenge to explore Virtual Reality. This adventure was the origin point of *Eagle Flight*, the first VR game published by Ubisoft. It was also the beginning of a broader thought process on digital realities. Within the XR:MTL project – a collaborative and innovative space dedicated to XR in Montréal – Olivier and Ubisoft's team are determined to push the boundaries of immersive entertainment.

Understand the medium, adapt the format

A team of 3-4 curious employees started looking into Oculus' Developer Kit 2: they immediately saw its potential. However, instead of rushing the release of a game, Olivier Palmieri and his team tried to understand every nuance of this new medium and to understand its challenges and opportunities. The rationale behind this research was to prevent a game from being artificially forced on this new platform: the game and its universe should result from a deep understanding of the technology.

As a first step, the research focused on the motion sickness caused by some VR experiences. This issue was – and still is – one of the main obstacles for widespread adoption of VR. A player will abandon an experience if they do not feel comfortable. At that time, the consensus was that motion sickness was caused by rapid moves. However, Olivier thought that this limitation could be bypassed. Ubisoft's team observed that the concordance between the inner ear and the vision (what you can see in the head-mounted display), can alleviate motion sickness. Therefore, they concluded that the user should be able to move in the virtual environment with their head. Moreover, to prevent any type of inertia (which would create a dissonance with the inner ear), the game should take place in the air, as opposed to under the water for instance, and feature an animal, as opposed to a plane or a rocket. The cornerstone of *Eagle Flight* was there: the results of a six-month research. From game design to sound design, to textures, everything was thought and developed to enhance comfort. It was also crucial to forget some of what they were used to do during the production of a "traditional" game, to learn a new narrative language. All these challenges make up the true spice of new digital realities. They are only nascent technologies; the exploration just begins!

Eagle Flight was released in year-end 2016 and puts the player in the role of an eagle flying over a futuristic Paris where nature reclaimed its rights. It is Ubisoft's first VR game, and an arcade version is available at some VR locations.

L'Atelier XR

Ubisoft Montreal partnered up with Concordia University to create XR:MTL, a place of innovation shining a light on VR, AR and XR. The main objective of XR:MTL is to establish a physical space where academics, start-ups and large companies, such as Ubisoft, will be able to collaborate. XR:MTL will be home to companies operating in different sectors (e.g., health, entertainment, education, etc.), and new ideas will hopefully emerge from this diverse ecosystem.

L'Atelier XR will be Ubisoft's space within the XR:MTL project and Olivier Palmieri was appointed Director. Ubisoft will use L'Atelier XR to promote and support start-ups that advance Montreal's VR industry: Ubisoft will bring its experience and expertise and the start-ups will bring ideas and innovative solutions. A focus will be particularly made on commercially viable projects: collaborators at L'Atelier XR will be invited to test and develop their products on Ubisoft's franchises. According to Olivier Palmieri, L'Atelier XR is also a wonderful opportunity to connect with the research community, increasingly crucial in the development of interactive experiences. Researches will be conducted on cross-cutting issues industries and issues like 5G or AI. This project also falls within the « beyond gaming » approach that Ubisoft has been trying to cultivate for several years, as illustrated by the *AC Discovery Tour*, a game mode available in the latest opuses of the *Assassin's Creed* franchise and designed for educational purposes.

Some partners of XR:MTL have already been announced, such as Oculus or D-BOX, as well as tenant start-ups (The Phenomena, Aperium, etc.). XR:MTL was announced in summer 2018 and is expected to open for spring 2019. Of course, the main focus of this initiative is the Montreal ecosystem, but should that project be successful, similar initiatives could open in other cities.

Looking ahead

Of course, there are obstacles to overcome for new realities (e.g., cost of equipment, configuration, motion sickness, etc.), but for Olivier Palmieri, this is only the beginning. Improvements can be seen across the board, from software to hardware (e.g., standalone headsets). Just like our old mobile phones, as big as suitcases, digital realities will evolve to become more agile and essential. The future is bright for VR/AR/XR. Moreover, AR will not compete with VR: these are sister technologies that will work together seamlessly. XR will be full of surprise and will take us to places we cannot even imagine. Ubisoft is making sure to be first in line for the next expedition.