JE SUIS PARIS
How Virtual Reality Can Help Heal Paris (and the Rest of the World)

by Alexandra Ivanovitch, PhD

THE NIGHT OF THE ATTACK
1st Chapter

"We can't get out".

"Why? What's happening?"

"Look."

She handed me her cellphone tuned to the breaking news of *Le Monde*.

The dance class had ended in sweat and laughter a few minutes ago in one of the busiest dance studios in Paris on a chilly November evening. It's only after we concluded the last moves that we realized what had happened.

At 9:20 p.m. a suicide bomber detonated an explosives belt near Gate D of the Stade de France, where France and Germany were playing an exhibition soccer match.
At 9:25pm, gunmen in a black vehicle started shooting at people sitting at Le Carillon and Le Petit Cambodge with Kalashnikov-type assault rifles, killing 15 people and leaving 10 others seriously wounded.
At 9:30pm, a suicide bomber, wearing a vest identical to the first one, struck near Gate H.

The city of lights is under siege.

Quickly we catch up on the morbid list of shootings and attacks that have stricken in the capital in the last hour. We realize that at this very moment, a kilometer away, people are taken as hostages at the Bataclan.

No one can get out of the dance studio.

Four blocks away, nine lives were taken at the terrace of La Belle Equipe, a cosy restaurant rue de Charonne. Police cars have barricaded the neighborhood.

We look at one another in horror. How could it be that while we danced and laughed on a thoughtless Friday night, a concert place had become a slaughterhouse, and the terraces of nearby restaurants and cafés, combat zone?

IMPRISONED
2nd Chapter

The Fresnes Penitentiary. One of the largest prisons in France, 15 miles at the south of Paris.

The Integration and Probation Officer ushered me into her exiguous office. She had already heard about virtual reality in the context of gaming, but what did it have to do with rehabilitation and the fight against extremism? She gave me a look that wavered between curiosity and incredulity.

Ever since the Paris November attacks, sociologists and criminologists had uncovered the poisonous role the prison system played as an accelerator for extremism and radicalization. While incarcerated, instead of being trained and prepared to reintegrate society, too many offenders were integrating the deceivingly welcoming womb of religious extremism.
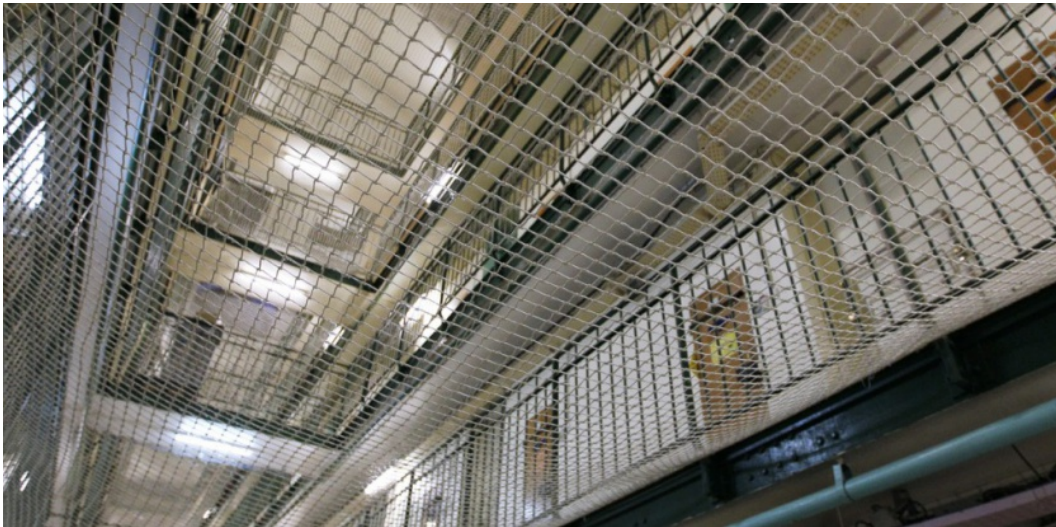
Credit: *Le Nouvel Observateur*

As a fellow in Digital Humanities at the Center for Research and Interdisciplinarity, I had experimented with the immense potential of virtual reality to develop perspective-taking, notably with the brilliant collective of artists, the BeAnotherLab, which developed a "machine to be another" using virtual reality.

That day I was pitching at the Fresnes prison what I framed as a "tolerance accelerator": a role-play game enhanced by experiential technology and based on the latest advances in social neuroscience. What would happen if we could have instantaneous and smooth access to a wide palette of perspectives on a given situation and seamlessly transition from the conflicting point of view of A, B and C? This tool would be a compelling cure of radicalization and extremism.

"Through virtual reality, we can free ourselves from the limitations of our bodies that condition the limitations of our minds."

The Integration and Probation Officer looked at me bewildered.

I told her about the inspiring work of pioneering cyberpsychologists and social neuroscientists, Mel Slater and Jeremy Bailenson who have shown that virtual reality can make us more empathetic and help us reduce our biases towards outgroups. I had previously met Pr. Mel Slater at his lab in Barcelona: there is a strong probability that virtual reality could be used as a powerful antidote to violent extremism to reinforce trainings in diversity and tolerance. Now we just have to test it!

When and where will we transfer the studies conducted in labs into the real world to achieve impact?

"Not now. Not here".

Her answer was sharp but honest. French prisons are a digital "non-place" -- simply don't appear on the map of the digital world. Smartphones are only smuggled illegally, and the internet is viewed by officers as a dangerous vector of evasion. Within the prison walls, Moore's law is not in vigor. Using exponential technologies to enhance rehabilitation through an innovative training of socio-emotional skills like empathy is just not within their range of action.

When I got out of the Fresnes prison, the last words from the Officer that concluded our interview kept on echoing in my mind.

"Try abroad."

WHO CAN FEED HUMANITY'S "HUNGER FOR BROTHERHOOD"?
3rd Chapter

"This sounds like the things that you are doing. Take a look."

The e-mail from Fabienne was short but intriguing.
We had met a few days earlier at a roundtable on virtual reality where I had been an advocate for the social impact of the medium. She had just forwarded me the XPRIZE Visioneers challenge powered by HeroX.

XPRIZE is a Los Angeles-based non-profit which incentivizes innovation through prize competitions. They are looking for social innovators to reflect on how virtual reality and other exponential technologies can develop empathy. I instantly decide to register. Maybe this could be the fertile soil on which to plant the seeds of social innovation powered by technology.

The Visioneers competition is sponsored by the Roddenberry Foundation. Gene Roddenberry created Star Trek. It makes so much sense. Gene Roddenberry said that Star Trek was successful as a TV show because humanity had an "enormous hunger for brotherhood". Seeing humans and aliens in the 23rd century not only accept each other, but understand each other and thrive together -- that was inspirational for generations of viewers and fans in the 20th and 21st centuries. Viewers who live in a

world where human beings are still alienated to one another because of skin color, religion, gender, sexual or political orientation.

I started envisioning a competition that would solve the entanglement of persistent multifaceted conflicts on different scales: interpersonal, national and international. How is it that two people, two institutions, two nations come to a point where the construction of the other as the enemy makes it difficult, or sometimes impossible, to engage in a constructive dialogue and to creatively co-build solutions to the shared problem ?

Whichever context and scale are concerned, be it between spouses, friends, parties, institutions, nations, the pattern at the root of the conflict is recurring : a lack of cognitive and affective empathy, the inability to adopt an overarching perspective, the incapacity to change lenses on the conflictual situation and perceive the interdependence of the different parties, instead of their mere opposition.

When I was interviewed by XPRIZE's head of HR, I explained to him how virtual reality could be a powerful conflict debugger: it allows us to transcend our neurophysiological limitations and adopt the point of view of another.

That's how the XPRIZE Visioneers started for me.

MY VALUE PROPOSITION
Epilogue

"I would like to start with a riddle.

What is invisible to the eye, yet its consequences can be seen all around us?

What is critical to the survival of our species but is in decline?

What connects us, makes us human, separates us from machines?

Do you know?

It's empathy."

Here is how my TED-style introductory talk started at the XPRIZE Visioneers summit for the Roddenberry Empathy Team.

Among all the concepts pitched at the Summit, the Empathy XPRIZE was definitely the odd one. We were not addressing the fight against cancer, water scarcity and food shortage. This XPRIZE was disruptive because unlike all of the other prize competitions, it didn't mean to change the world. It meant to change people. And people change the world.

In the corridor behind the stage, a middle-aged man rushes to come speak to me after my talk. He says he understands the framing of the prize, but he still has one question.

" What's your value proposition?"

This question was humbling. At that moment I realized one challenge had been won, but many were still awaiting.

In "The World House", Dr. Martin Luther King, Jr. writes: "We have inherited a large house, a great "world house" in which we have to live together—black and white, Easterner and Westerner, Gentile and Jew, Catholic and Protestant, Muslim and Hindu—a family unduly separated in

ideas, culture and interest, who, because we can never again live apart, must learn somehow to live with each other in peace."

I will never forget how a dysfunctional World House sounds and smells -- saw a portion of it in 2015 in Paris. That night Parisians all witnessed how fragile the peaceful equilibrium of a Friday night could be.

When extremism draws imaginary lines between people of different religious orientation, race or gender, then the World House is set on fire, and value propositions are no longer relevant.

There only remains a proposition of values -- for us to do a crash course on how to be the peaceful tenants of this house.