

Ubisoft Game Makers Podcast  
Exploring Real Worlds and Virtual Worlds  
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(DRAMATIC MUSICAL STING)

PATRICK INGOLDSBY:

I think you could be a virtual tourist and experience places like you know, Chicago or the Bay area, and of course now London in the Watch Dogs brand. And I think that's something people really appreciate because not everyone can go there. Not everyone has a chance to visit these places.

CHARLES-ADAM FOSTER-SIMARD:

This is Charles-Adam Foster-Simard from Ubisoft. (CONTEMPLATIVE MUSIC)  
Working at a video game developer like Ubisoft, where we create games in which people spend dozens, sometimes hundreds of hours in the virtual worlds we create, I have naturally come to ask myself a lot of questions about what it means for people to immerse themselves in virtual worlds. What is so enticing about virtual worlds? As technology keeps developing, and these worlds become richer, bigger, more photo-realistic, more immersive, as virtual reality or VR becomes more commonplace, and the 'Metaverse' is the buzzword of the day, what are the values of these virtual worlds, and how different are they from the world we live in?

Are virtual worlds and IRL in competition against each other? Or are they complementary? Today, on the Ubisoft Game Makers Podcast, we're going to explore these questions with three speakers who work on completely different projects. Our first stop in the real world is in Toronto, Canada to talk with art director Patrick Ingoldsby. But in the virtual world, we're headed to a dystopian near-future version of London that was featured in the game, Watch Dogs: Legion, which came out in 2020. I spoke with Patrick to learn more about the work his team did, to create this virtual version of London.

PATRICK INGOLDSBY:

London is a melting pot in Western Europe of culture, of world culture, and diversity. (SIRENS BLARING)

The more we got familiar with London, the more we realised how important it was as a city that represents people. And working with Clint Hocking and witnessing the development of... It's a game about people. It's a game about play as anyone. You know, the wonderful breakthrough for us was how liberating this could be for us because as artists and as developers, we can be inspired by a city that's as wholesome as London in terms of just what London represents, you know, as a Western Europe destination, where so many people from around the world have converged in history.

So that's an important part of our focus really is studying the cultures that exist in the city, and finding ways to be inspired by them. London and the boroughs of London are essentially like a giant quilt of culture and diversity. And the one thing that we discovered, and, you know, as a test tone in a lot of our early concepts that we did, was realising that underneath the cultural stamps of these locations, visually, you know, London is London, you still have the same bricks. You still have the same cobble streets, and pavements and, you know, architecture. However, when you go into certain key districts like Camden or Brixton, or even sections of Tower Hamlets, where, you know, you have a concentration of occupational types or diverse culture types, you know, you see that stamp on the world.

So that excited us as artists and as visual creatives, because we realised we can create a world, that is about people, but also has these kind of visual stamps on the buildings. Like for example, street art is a very strong culture in London. And there are street art hubs throughout the city. And what's interesting is sometimes, even when you go to places like Brixton, that street art ends up also representing and echoing the people who historically have converged there over time. Like for example, during the Windrush, historical event where a lot of people and folks from the Caribbean came and to live in London, it really had an impact on the environment.

(CONTEMPLATIVE MUSIC)

CHARLES-ADAM FOSTER-SIMARD:

So for Patrick, and the Watch Dogs: Legion team bringing their near future version of London to life was really about representing the inhabitants of that London and the diversity of its population. And that makes sense. The game's defining gameplay feature is that you can literally play as anyone. Anyone you see in London can become a playable character. So in a way you could say that this virtual world is made up first and foremost, not of the buildings and streets and monuments of the city, but of the characters who inhabit it. But how about delving into a world that's essentially geographical, or even topographical in its approach? That's the case with Riders Republic, an extreme sports game in which players can explore a huge open world inspired by seven American national parks, on dirt bikes, skis, snowboard, and even a rocket suit. To find out more, I talked with Renaud Person who's based at the game's lead studio, Ubisoft Annecy.

As World Director, and that's surely one of the best job titles we have at Ubisoft, Renaud's role was to lead the team that designed and produced the playable surface of the game. His team's challenge was to handcraft a world based on real natural landscapes.

RENAUD PERSON:

To be honest, that work was really a job I really want, because first of all, we started

from 22 regions that we selected and we had to come down to be able to release them. And to reproduce them actually, we used realistic altimetric datas, which, precision, are seven metre by seven metre by seven metre. And thanks to that, we reproduced this geology, by stitching them, as you said together, which was not an easy thing because actually we had to modify, for instance, their orientation, or their altimetry, which is not as it is, as I say, in the new reality.

CHARLES-ADAM FOSTER-SIMARD:

So, correct me if I'm wrong, but it's basically the geography or the geology of these parks or the sections of the parks that you're choosing, are accurate to a seven metre by seven metre pattern on the ground.

RENAUD PERSON:

Yeah, so we are using that accuracy of seven by seven by seven metres to reproduce the world, but actually it's not enough because we don't have all the precision of the granularity of the terrain. So, on top of that, we had procedural rules that will alterate and modify the skin of the surface, of the playable surface. And we will add things to that, all the bumps, all the irregularities that will give opportunities to the player to play on.

(CONTEMPLATIVE MUSIC)

CHARLES-ADAM FOSTER-SIMARD:

When games are based in real places like London or American national parks, it leads to the question of accuracy. How accurate the game creators feel they must be. For Renaud working on Riders Republic, it's about being faithful to the natural environment, the panoramas, the views, the major landmarks of those parks. Yosemite wouldn't be a Yosemite without its sequoias, El Capitan and Half Dome. But the degree of realism, of faithfulness, has to be dictated by the gameplay. Sometimes the team needed to tweak a few things, to make sure the world they were building was simply fun to ride on.

RENAUD PERSON:

We are not making a scientific geology exercise. We are making a game. So we inspire ourself and we take the best from the nature as far as it is servings the game. But when it's not enough, we tend to modify and to twist reality in order to make all the sports and all the behaviours of the player fun on the game. So that's why for example I can give you some clues on that. I would take the example of Bryce Canyon, where actually we increased the altimetry, the amplitude of the altimetry, because the real site itself is, of course, amazing, but it's not long enough for us to have long runs. So really we take the nature. We are as faithful as we can about the nature. But as soon as it is not enough for the game, we twist it a bit, so that all the game play can really happen on it.

CHARLES-ADAM FOSTER-SIMARD:

Can you give me other examples of concrete areas or places that exist in real life, but that you had to modify or change in order to make them fun and playable for the character?

RENAUD PERSON:

Yeah. So for example, we, we worked on the Grand Teton and Grand Teton is a very famous mountain, where the slopes are really dangerous. And actually we increased it just a bit, I think, kind of 10%, the slope, so that our behaviours of riding were really fun in it. It's very important for us that all behaviours are really matching with the surface we are creating and actually that was really a very, work with a lot of proximity with the engineers of the behaviours to make the topology match with the sports we do. So here it was for example, increasing the slope, but sometimes it's also about the population. I will take the example of the trees, for example. When speaking about Sequoia, we have especially tweaked a bit, the density of trees, so that first of all, you can fly in between them, but also you can ride a bike and ski between them.

CHARLES-ADAM FOSTER-SIMARD:

So you could almost say that the world is optimised for the way that these sports are designed in the physics of the game and vice versa.

RENAUD PERSON:

Yeah, absolutely. Actually, you put the finger on exactly what is our creed. That world would not exist if it was not been done for that game. And so all what we can do in that game deserves a perfect surface to ride on. And that's what we tried to do.

(CONTEMPLATIVE MUSIC)

CHARLES-ADAM FOSTER-SIMARD:

As for Patrick working on Watch Dogs: Legion, although the team wanted to create a city that was recognisably London, the game setting, and genre also allowed them to be a little bit more creative.

PATRICK INGOLDSBY:

It was definitely a challenge that we had on our side. Where we started in terms of credibility and authenticity really was understanding what's postcard about London. We want to make sure that we respect key landmarks as almost like pushpins. So from a high level, when scoping out and blocking in the city that we had to build, you know, we want to make sure we got the sight lines right. So understanding the relative relationship of key landmarks across the skyline was an area of focus. So we really tried to use those as the key pushpins to map out our world. But, you know, we also realised that, you know, we're not going to be able to build the entire city of London, you know, exactly the same way it is in real life.

So paying attention to those key landmarks was important. Another area that we were able to get very creative with was picking key locations to fictionalise as say, key headquarters for certain characters in our game, or in our story where, you know, maybe there's a secret lab or, you know, that sort of thing. So obviously our game is about science and technologies and the impact that could have on humanity. So being able to, I guess, scout, maybe not as familiar buildings to be featuring, you know, really exotic rabbit hole interiors was a lot of fun as well, and very, very liberating. So we were able to flex there for sure.

CHARLES-ADAM FOSTER-SIMARD:

Key to creating the virtual versions of real places is research. At Ubisoft research, be it on the ground or through books, technology, images, videos, whatever, allows teams to move more freely, to find the little nuggets of inspiration that will make the virtual world shine all that more. Sometimes it's in the research, in gathering data and speaking with people on the ground, that the strongest point of connection between the virtual world and the real world exists.

PATRICK INGOLDSBY:

When we were studying London, the boroughs, the cultures, the people, the kind of visual stamps that that brings to the world that we're crafting, ultimately, we still have to temper all these ideas and filter them through a lens of the narrative of the game, you know, and really the lens of the brand itself. So being that Watch Dogs is a game about how humans engage with technologies, either for a greater good or to mitigate abuse, you know, with technology. One of the processes that we had was something I called DNA where, you know, if we figured out what we understand about a borough, we would work on the digital, the natural and the architectural aspects of those boroughs, and really come to terms with what we want to do and how we want to re-represent those boroughs, in a way that really complements the Watch Dogs brand.

So as an example, Islington and Hackney, which is just north of the city of London, is known as the Silicon Valley of London. So, you know, naturally we would try to focus in on, there's new tech companies and upstart companies that are doing great things. Maybe this is something we can lean on, on the narrative end. Whereas if you go to Camden Market, you know, there, there could be some cyber punk underground bod body modification type of cultures there. So understanding those sections, and then again, filtering them again through the DNA process so that we make sure our ideas will align to the Watch Dogs brand was something that I felt was extremely instrumental in even crafting our missions and crafting out all the team's understanding of how we could leverage these ideas to do them in a way that really champions the Watch Dogs cannon.

(CONTEMPLATIVE MUSIC)

CHARLES-ADAM FOSTER-SIMARD:

I have one more speaker to bring in, and that's someone called Melanie de Riberolles. Melanie works in the new business team at Ubisoft, creating VR and AR experiences based on Ubisoft games and their worlds. We spoke about a virtual reality experience that her team developed around Notre-Dame Cathedral, which was destroyed by fire in April, 2019. As soon as the fire occurred, we felt very concerned at Ubisoft. We're a French company, of course. We have several studios in Paris and our HQ is located here as well. But it's not just that. The 2014 game Assassin's Creed Unity, set in Paris during the French Revolution, used a recreation of Notre-Dame, as a centerpiece of the map. It's a landmark that you could climb all over in the game in classic Assassin's Creed fashion. For Melanie and her team, it was clear that they needed to do something about Notre-Dame that year.

MELANIE DE RIBEROLLES:

Actually, the idea came right after the fire. For a while, our team had been trying to exploit in VR, some of the great monuments that are created in our games. But our tests focused until then on ancient or disappeared monuments, and whereas, for us, Notre-Dame was still accessible and would be there forever. And right after the fire, among all the photography testimonies that were posted online by people expressing their emotion, many gamers posted some videos from Assassin's Creed Unity. And so we thought, well, why not make this model available to a wider audience, more casual, not gamer, and be able to visit it again, because we know, now we can do it. We have the technology to do so.

CHARLES-ADAM FOSTER-SIMARD:

Yeah. And we knew the building of course, you know, was partially destroyed. We knew it would take a while before people could visit it again. So for the team, this was an opportunity to create something where people could visit that monument.

MELANIE DE RIBEROLLES:

Exactly. With all the emotion of having the cathedral in a lively Parisian environment, because that's something we can, we have in our game.

(CONTEMPLATIVE MUSIC)

CHARLES-ADAM FOSTER-SIMARD:

And, just like with a more traditional video game, the question of realism and faithfulness to reality comes into play. The model of Notre-Dame from AC Unity included the Cathedral spire and gargoyles, even though these were 19th century additions. The church just didn't look like itself without them. What the new business team focused on was allowing people to visit Notre-Dame and experience the building while it was inaccessible. And using a few tricks from video games to make the experience more immersive.

(ORGAN MUSIC)

MELANIE DE RIBEROLLES:

We added a few elements such as the music from the real organ of Notre-Dame de Paris, which now times the experience. We synchronise the different movement of the piece of music that we chose, that was recording in Notre-Dame, six months before the fire. And you visit 10 different places. Some of which were not always accessible at the time before the fire. For this experience, we knew that people would do it to really experience the cathedral, not a specific time, and our goal was not historical, but rather to make them visit Notre-Dame again. We were lucky that some elements that are still in our century were already in that model. That, plus the music, plus all the environments that we could take from Assassin's Creed Unity.

So you can see Paris and you can see the monuments and we have a hot air balloon trip over the monument to see it. Plus the animation make a very lively experience. And the animations are characters from Assassin's Creed Unity. We didn't try to modernise that. So we have horses and carriages and the long dresses in front of the door of Notre-Dame. And it works great because we showed it to a whole team of people who worked on the reconstruction of the real monument at the Ministry of Culture at the time. So there was the Archbishop. There was the architects working on the project. But also the stone carvers, and-

CHARLES-ADAM FOSTER-SIMARD:

The stained glass...

MELANIE DE RIBEROLLES:

Yes, the stained-glass makers...

CHARLES-ADAM FOSTER-SIMARD:

Specialists, makers, yeah.

MELANIE DE RIBEROLLES:

And they tried it. And they loved it.

(CONTEMPLATIVE MUSIC)

CHARLES-ADAM FOSTER-SIMARD:

Melanie talks bringing the spirit of the place to life and for Renaud working on Riders Republic, I think it's clear that that's what they tried to capture in the game as well. It's not just about the topography and the landmarks. It's about experiencing a place and enjoying it. So I asked Renaud, what was his favourite place in the game?

RENAUD PERSON:

It's true, that there is one that I love very much, which is Bryce Canyon, because I feel like having been there. Actually, when I made that trip and I spent some days in Bryce Canyon and when I recreated it with the team, we really had the impression to be back there again. And we are very proud of that success. But also personally,

another one that I like a lot, to ride on with my bike, it's canyons, where there is really that desert feeling of loneliness, but also you can meet a lot of people and have a lot of challenge with them, in kind of super extreme topologies with the canyons, with all the arches and each very famous place that you can encounter there.

CHARLES-ADAM FOSTER-SIMARD:

So, when you're visiting these places, when you're playing the game and seeing them virtually, do... For you, does it really bring back the similar sensations to when you were there in person?

RENAUD PERSON:

Yeah. I actually am very proud of what we succeeded in making that game because each region that we have done are really similar and give really the same feeling. You know, we have the expression for that, which is the spirit of the place. And I think we finally succeeded in recreating that feeling of the place, the spirit of the place, where people who have already gone there, will definitely recognise this place and we have done everything for that. And especially each landmark has been precociously reproduced, and a lot of recognised places are reproduced here.

(CONTEMPLATIVE MUSIC)

CHARLES-ADAM FOSTER-SIMARD:

As for Patrick and the Watch Dogs: Legion team, their virtual version of London was also a way to explore the future. What London might actually look like in five, seven years' time for better or for worse.

PATRICK INGOLDSBY:

We pretentiously tried to imagine ourselves getting into a time machine and going into London five, six years from now and seeing what that could be like. And I think a lot of that was paying attention to the kind of bell curve of the exponential growth of tech that we've seen in our lives personally, but also trying to predict by paying attention to what's developing today, you know, with autonomous cars, drone technology, even like playing with subdermal implants, you know, like characters in our world. They all have this little device that's magnetically attached to their temples. And the optic bank is a device that plays with bone induction technology. So that taps into your optical nerves and people can perceive mixed reality.

So what was cool about that was, as an operative hacking the world and seeing all these UI pop-ups, that was sort of our way of justifying that idea. The question comes up, how does technology solve something in the world? And where can we shift our focus in making sure we represent these things? So, you know, you do see a lot of cars driving around in our simulation that don't have people driving them because they're automated cars en route to pick somebody up, for example. Or why fly drones? There's another example of a solution where it has sort of a two-fold



solution. It makes connectivity for the world a lot better for everyone. However, you know, the hidden cost of that is intelligence entities now have mobile CCTV cameras essentially at the heart of it.

So sometimes hyper-connectivity can be a good and a bad thing at the same time. So we had a lot of fun with these ideas and concepts. Visually, however, you know, we were also inspired by holographic technology. And I mean, it's something that we're all familiar with today, for sure, but we still don't see a lot of it to be honest. It still feels like it's a somewhat emerging technology.

CHARLES-ADAM FOSTER-SIMARD:

Yeah for sure.

PATRICK INGOLDSBY:

And we felt, you know, here's our chance to really show the world some ideas and concepts that could predict what the future could hold in a not-too-far-distant future for everyone to witness in their lifetime.

(CONTEMPLATIVE MUSIC)

CHARLES-ADAM FOSTER-SIMARD:

Although, virtual worlds are built with high-end tech accessed on machines, it's not just about the future. Virtual worlds are also about the here and now. Similar to the Notre-Dame VR experience that allows you to visit a site that is currently under extensive repair, Patrick talks about how some games allow for a form of virtual tourism. You can visit the world and learn about these places, experience some aspects of it without having to leave your home.

PATRICK INGOLDSBY:

I think the thing that blows my mind about what Ubisoft, as a game studio does really well, is we're able to build and create these experiences with very famous well-known cities and offer them to the world, where maybe, some folks who don't have the means to physically explore those worlds, gets a chance to virtually explore those worlds. I worked on Assassin's Creed Unity in a code dev team and building a French Revolution Paris was something that was interesting and being able to visit Paris after that, I never got lost when I wandered through the city because I recognised it from all the experiences that we had developing the world and playing the game.

So I think you could be a virtual tourist and experience places like, you know, Chicago, or, you know, the Bay Area. And of course now London in the Watch Dogs brand. And I think that's something people really appreciate because not everyone can go there. Not everyone has a chance to visit these places for whatever reason, you know, they're too busy in their lives or they just, they live too far away from these places. And I love the fact that we can build an impression of these worlds and give

them to people to experience almost as a virtual tourist, really. The other aspect that I appreciate about what games have to offer is they can inspire ideas towards the future as well. I mean, we just witnessed William Shatner go up in an Amazon Craft and come down and just be blown away.

And it's almost like he lived the art, but now life is imitating that art, you know what I mean? So being able to express ideas of where technology could go or the types of amazing devices and narratives, and fiction that we crafted up, may inspire somebody, somebody who's going through and taking physics or some kind of science, and they might be inspired by something that we develop in our fiction. And that may, in fact, become the catalyst to deliver something in real life. I think that kind of back and forth between art and the real world is something that I've always personally appreciated. So I feel fortunate to be able to be a part of that tradition in something as modern as developing this kind of interactive media.

(CONTEMPLATIVE MUSIC)

CHARLES-ADAM FOSTER-SIMARD:

Going back to Melanie and her team, working on VR and AR experiences, what they're working on now is a new project, scheduled for next year, and based around the fire that destroyed the cathedral in 2019. In this VR experience, players will step into the shoes of a firefighter, tasked with saving the relics of Notre-Dame and combating the flames that are threatening the historic building.

MELANIE DE RIBEROLLES:

We are working on another project in the team and quite different, because this time it takes place in Notre-Dame in fire. And you're going to act as a firefighter with your teammates to save Notre-Dame and it will be an escape game.

CHARLES-ADAM FOSTER-SIMARD:

Wow. So it's going to be set during the actual fire of Notre-Dame, and you'll be kind of combating the flames, and I assume saving things from the building, maybe, or?

MELANIE DE RIBEROLLES:

Yes, the challenge will be to immerse people in this catastrophe movie that was the fire, and make you feel the tension, that the firefighters were confronted with at the time. So your team is in charge of saving the sacred, the holy crown.

CHARLES-ADAM FOSTER-SIMARD:

The relics?

MELANIE DE RIBEROLLES:

Yeah, the holy relics. And after this mission is completed, you're going to have to save the Northern tower from the fire, because that's where the ultimate epic battle against the fire happened. But it's also very beautiful when you have the fire

cascading from the top inside the cathedral. And we want them to feel the heroism and dedication of the teams who had to fight against the fire and to feel proud because they saved the Notre-Dame at the end.

CHARLES-ADAM FOSTER-SIMARD:

So what is the value of these VR experiences? What can these virtual worlds offer players beyond what they can find in the real world?

MELANIE DE RIBEROLLES:

Well, first, not everyone can access some monuments and you have to think that some people cannot climb or travel. And so they can access these monuments. You can make people travel in time and take them to another period where the monument was completely different. And you can also do things that are impossible in real life, or at least dangerous. You can fly over, maybe. You can jump. You can experiment the monument in a way that could not be done in real life, go to very high places. Then you can of course interact in it. And that makes you live a memorable moment in the monument. You will get more striking memory of your visit if you have been really acting, exploring, walking inside this monument.

CHARLES-ADAM FOSTER-SIMARD:

So for you, is that the value of virtual reality, the ability to interact with those places and that sense of immersion that comes through that interaction?

MELANIE DE RIBEROLLES:

Yes, that's one of the value, to be able to interact in it. To be there. But also to experiment it, in ways that could not be done in real life.

(CONTEMPLATIVE MUSIC)

CHARLES-ADAM FOSTER-SIMARD:

Real worlds, virtual worlds. After speaking with Melanie, Patrick and Renaud, I think what I like best, is when one feeds into the other, when the real world becomes transposed into a virtual world that you can play in, and that might surprise you in ways that the real world doesn't always. Because it's not scripted. Sometimes we can even find inspiration for the real world we live in, the one that's sometimes at risk, by looking at its virtual counterpart. This episode of Game Makers was produced and edited by the team at Engle. I'm Charles-Adam Foster-Simard from Ubisoft. Transcripts of our episodes are available on Ubisoft news. For more from Game Makers, remember to subscribe wherever you get your podcasts. Thanks for listening.