Ubisoft’s Research Looks to Improve Smart Car AI and More

La Forge works to make AI better for games and the world

A scene from Ubisoft's Watch Dogs 2 Ubisoft

By Brian Crecente
French video game maker Ubisoft is in talks with smart car researchers about using its own artificial intelligence research to perhaps one day make self-driving vehicles safer.

Ubisoft detailed the project, one of many initiatives of its research and development division La Forge, on the same day that news broke of a self-driving Uber car hitting and killing an Arizona woman who was crossing a street.

“That’s why it’s so important to find ways to harness the power of AI,” says Yves Jacquier, who heads up La Forge in Montreal. “I don’t want to say it will solve those kind of problems, but maybe we can make a contribution to help test [smart cars] in all kinds of situations and diminish the risk.”

La Forge takes a unique approach to not just researching ways to better technology for games, but also examines how game development can help society on a broader scale. It does this by teaming up a rotating crew of about 20 Ubisoft developers and researcher with a broad range of academic researchers in Montreal.

Artificial intelligence is among the many things it is researching, specifically how the video game industry can influence the development of AI, Jacquier says.
French video game maker Ubisoft is in talks with smart car researchers about using its own artificial intelligence research to perhaps one day make self-driving vehicles safer.

Ubisoft detailed the project, one of many initiatives of its research and development division La Forge, on the same day that news broke of a self-driving Uber car hitting and killing an Arizona woman who was crossing a street.

“That’s why it’s so important to find ways to harness the power of AI,” says Yves Jacquier, who heads up La Forge in Montreal. “I don’t want to say it will solve those kind of problems, but maybe we can make a contribution to help test [smart cars] in all kinds of situations and diminish the risk.”

La Forge takes a unique approach to not just researching ways to better technology for games, but also examines how game development can help society on a broader scale. It does this by teaming up a rotating crew of about 20 Ubisoft developers and researcher with a broad range of academic researchers in Montreal.

Artificial intelligence is among the many things it is researching, specifically how the video game industry can influence the development of AI, Jacquier says.
**Games and AI**

During a press event at the Game Developers Conference this week, Jacquier pointed out that the development of AI has long been tied to the use of games as a benchmark of success.

Ubisoft’s hope is to foster a new paradigm in which video games aren’t simply a measurement of an AI’s growth, but can help accelerate it and that in turn AI can also speed-up the process and improve the efficiency of making games.

La Forge has been experimenting with using AI to remove some laborious processes involved in making games. For instance, after a motion capture session is created to capture the movements of an actor, someone has to go in and manually clean up the capture so it looks right. AI, researchers found, was able to do work that would take a person four hours to finish, in just four minutes. Then a person would go in and do the final touches manually, in much less time.

The team of Ubisoft and academic researchers were also able to get AI to create walking animations on the fly, instead of needing to have a person do them manually.

They even worked out a system that could automatically create lip movements for a character to match different language translations of a game. The result, while not perfect, could be quickly cleaned up by an animator.
Ubisoft has also started using AI to test out changes in games, just to ensure that they don't break the balance. So, for instance, before an attack type or new weapon is added to *For Honor* they might have two AI bots test it out to ensure it isn't too powerful.

“That’s where we stand now,” Jacquier says. “But what does the future hold for AI in video game?”

Currently, the team is working on creation assistance, which means AI would fully create things for video games and work to predict whether a programmer is about to or just added a defect to a game’s code.

In the future, Jacquier says, AI will be able to craft personalized experiences for players by assessing the patterns a player uses and predicting the best challenges for a person, making the game more fun.

Those AI-empowered tools could also one day be handed over to players who could use them to create their own things in a game.

**AI, Games and Society**

While this research at La Forge is working to improve video games, it is also looking at how video games and the research can improve the world.
“The game industry can help society,” Jacquier says. “Video game simulations can help to simulate scenarios faster. Also in terms of ethics, maybe we can create scenarios to see how your vehicles will react in front of such and such example.”

Jacquier says that because video games are so good at recreating the world, down to the physics and mapping of a place, they can be used to test out things like a self-driving car.

For instance, he showed the group a video of a car, using its own AI, trying to get from one point in a city to another as quickly as legally possible. In the video, the car trims some of its time by driving across the corners of sidewalks while turning. An obvious example of an AI that isn’t working as it should.

“We are discussing this with smart-car people,” he says “We are testing our assumptions about what the limits are and how far we can use this. The first test that we made led us to think that it goes further.

“We have game engines that can be real world simulators and we have data from ten years of video game play and motion capture data. This is all...
extremely useful for the AI community, but most of the results are still very academic.”

More News

- ‘West of Loathing,’ ‘Reigns’ and More Coming to Nintendo Switch
- Critically-Acclaimed Puzzler ‘Lumines’ Coming to Switch
- ‘Mark of the Ninja Remastered’ Sneaks Onto Switch
- Vivendi Sells All of its Ubisoft Shares to Tencent and Others
- Colorful Fighting Game ‘Fantasy Strike’ Hits Switch This Summer

All Stories »

Topics:  glixe  Glixe Feature  GDC

Around the Web

The Terrible Secret Behind One of the '90s Greatest Pop Songs
nypost.com

The Stunning Transformation of Jamie Lee Curtis
thelist.com
3-D-Printed House Costs $10,000 and Can Be Built Overnight
nypost.com

Things Only Adults Notice in 'Never Been Kissed'
thelist.com

The Most Famous Couple the Year You Were Born
nickiswift.com

An Emirates Flight Attendant Dies After Falling Out of Plane
aol.com

Gixel

Vivendi Sells All of its Ubisoft Shares to Tencent and Others
ALL-ELECTRIC 2017 BOLT EV

UP TO
238 MILES
OF RANGE PER FULL CHARGE*

Build & Price  Request A Quote  Explore Bolt EV

*Important info