

## The BAFTA Annual Games Lecture: David Cage

3 September 2013 at the Princess Anne Theatre, BAFTA, 195 Piccadilly

Tonight's BAFTA event is part of BAFTA's supporting the games industry, this is the Annual Games Lecture for 2013, and I'm your host, Guy Cocker. This session is part of BAFTA's ongoing work with the creative arts, if you're interested in learning more about the games industry or any of the creative industries, BAFTA host a series of events across the country that may be of interest.

Simply head over to [bafta.org](http://bafta.org) to find out more, or follow @baftagames on Twitter. And if you want to tweet about tonight's event please use the hashtag #gameslecture. Tonight's speaker is one of the games industries leading lights. His studio, Quantic Dream, is responsible for some of the most original and influential games of the last 15 years, including *Omikron: The Nomad Soul*, *Fahrenheit* and of course *Heavy Rain*.

His upcoming game *Beyond: Two Souls* stars Ellen Page and Willem Dafoe, and is released on Playstation 3 on the 11<sup>th</sup> October. He's going to be delivering tonight's lecture, titled *Can Games Become Art?*, and then answering your questions. So please join me in welcoming to the stage David Cage.

APPLAUSE

**David Cage:** Hello everyone. I'm supposed to tell you that there is a hashtag here, for those of you who are interested in this. We're going to start with a video.

MONTAGE

**DC:** First of all, it's a real pleasure for me to be here with you tonight. It's a great honour. I received a BAFTA award two years ago, for Best Story in a Game, for my work on *Heavy Rain*. And I must confess that that was a very important moment for me, until today. So thank you BAFTA, for having me and giving me the opportunity to meet you guys.

So, what are we going to do tonight? We have 45 minutes to talk about how Quantic Dream creates interactive storytelling and emotions in games. I'm going to share with you some of the secrets we have, how we do these games, how we create these characters, how we deal with script, cameras and all these things, and how we create all these experiences.

And then in the second part we'll talk about the future, where all these games may go, where I believe they'll go or they should go. So we'll talk about it. You saw in this first video we're a little bit special at Quantic Dream

about how we work with games. We took the strange habit of making games, and between games a short tech demo, just to try to prototype new ideas, new technologies, new concepts, and see how we can go with games.

So we started with the casting up there, before working on *Heavy Rain*. And then we worked on Kara, this android girl, to prototype the tech for *Beyond*. And now the last prototype is *The Dark Sorcerer* demo that maybe you guys saw, that is really about testing new ideas.

We did all this in quite a long timeframe, it took about 16 years to get there. When I founded the studio 16 years ago it was really about creating experiences that would be about emotion in game, and interactive storytelling. It's really interesting to see that, how sometimes people consider that interactivity and storytelling are two things that cannot work together because they are too different, in essence.

I was very interested, as maybe you were, to see this interview with Steven Spielberg and George Lucas – I think in June – where basically they said it cannot work. [That] it's impossible tell a story if the player is in control. Actually they said 'you know what, it's really not Shakespeare, the kind of stories that you can get in games'. I think this is a very interesting statement from major talents. They're incredible geniuses, these people, and they've made some of the most influential movies of the recent period.

But at the same time it's interesting to see that maybe they're not fully aware of what this industry is really doing. Because actually we are making it, we are creating interactive storytelling. To tell you the truth, my gut feeling is that this is the most exciting evolution in storytelling since films were invented. So we would really like to get these guys on board and tell them 'look, it's not only about me and Quantic Dream, many people out there work on interactive storytelling, and you should have a look because maybe there is something interesting for you guys. There is maybe something interesting, something maybe you could be a part of'.

They said it's not Shakespeare. I would like to say, you know what, I would be very excited in creating an interactive version of Shakespeare. And if they want to accept the challenge they can just fund it, and I would be glad to write it. And they can film it, or we can share the filming, or we can do something.

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But interactive Shakespeare, that's so exciting, that's really something unique and really new. And it's a challenge, because you would need to write the parts that Shakespeare never wrote, and just be as good. It's interesting – if they hear this message, if they watch this video live, Steven, George, let's go, let's do it.

The first question when you work on interactive emotions is why do you want to do this? Which is a question I get very often, why do you want to use cinematography? Why do you try to create emotions in games? There are several reasons to that. The first one is that emotion in storytelling allows you to get the player emotionally involved. Which is something very interesting and very important, because if you're not emotionally invested in the experience the problem is that you don't care.

You just play, you just press buttons, and it's okay and it's cool and at some point you lose interest. And that's the second goal we have, keep players' interest, from the beginning to the end. And you know these statistics, most people who start a game stop before the end. And actually it's only 30% on average of the people starting a game who play it until the end. 30%.

In the case of *Heavy Rain*, we talked about it before, it's about 75%. Why is that? The story. The story is what makes you care about the experience, and makes you carry on. You want to know what will happen next. It's a very powerful device. So in a time where we talk a lot about replay-ability, which is something important in the industry, we say wait a minute, before replaying the game let's make sure that people play it entirely first. Which is, at the moment, not the case.

We want to bring meaning to the experience. What I mean by that is that many games don't really talk about anything. They are just about shooting, killing, jumping, doing different things, but actually they don't tell you anything really. They don't carry any kind of meaning, they're just a moment that you spend. And this is something that storytelling and emotions can solve for you.

Last but not least, these devices can help us to make games appealing to a wider audience. Because today, people playing games, they are very defined demographics. It's not everyone. And when you think about video games, it's interesting to see that for example, we all have friends who are not interested in gaming. It's difficult to share our gaming

experience with our parents for example, or with our grandparents.

And what is interesting is that you can share with them your love for films, or tv series, or literature. You can talk even to your grandparents about the last film that you really enjoyed. But talking about games is impossible, just because they are not interested. Not everybody is interested in the experiences that we create, because there are many based on loops, and the same themes and the same stories, and this is not appealing to everyone.

But in order to do this there are some very significant challenges. From my previous slide you can say 'okay, it's interesting. Storytelling, emotion, let's do it'. But it's not that easy actually. The first challenge that you have is to manage to convince gamers themselves, and that's really a challenge because they are really used to a certain kind of experience. For some of them, they think that a game should first and foremost be about having a gun and shooting at something.

And yeah, there are some great experiences doing that very well. But at the same time there are other types of experiences, and you need to convince them that having emotion in a game can be just as exciting, as interesting as shooting at things. But in order to do this we also need to invent a new language, because interactive storytelling is something that needs to be invented.

And we are in the way of inventing this language, but we have few references. In you work on a film, the filmic language is very well known. It's really established for a century, and you know what works and what doesn't. But with games, game after game we invent this new language and we add new words to our language to make it richer and more interesting. And sometimes we fail, sometimes we think 'oh, this is an interesting direction, to do it this way' and we discover that it's not the case, just because this language is in the making.

And we need to manage technical constraints. I'm going to give you an idea of the technical constraints behind all this, but actually when you want to create interactive storytelling and emotions in a game, you need to deal with a lot of technical constraints, pretty much with all aspects of the game. From virtual actors to cameras, to animations in general, to sound. Everything is a technical challenge.

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So let's see now how Quantic Dream deals with all these various challenges, and how we try to tackle them.

Everything starts with a script, and writing a script is your first nightmare. You're going to see that making these experiences is a series of nightmares, and this is the first one. The first one is dealing with the script, it's an interactive script so you know, a film is usually about 100 pages – more or less. Here we deal with 2,000 pages. That a lot, that's a big volume.

And what's really weird about this thing is that you want to work with your left brain, you want to be very creative and have a lot of imagination, and create these great characters and great situations. But at the same time you want to use your right brain, because you need to be organised, you need to be structured. You need to give consequences.

Imagine all the different branches, all the consequences of all the possible actions, make sure you track them in a very consistent way. But before we get there, first thing is to have something to say. And for me that was a big discovery that I made on *Heavy Rain*. Before *Heavy Rain* I thought I could only write a game about things that would be inspired by films or by other games, or by things I have never experienced myself.

*Heavy Rain* was my big discovery, because it was the first time I realised that it was possible to write about something personal. *Heavy Rain* was about my experience being a young father, and the relationship that I had with my son. And it was just asking the simple question, how far are you prepared to go to save someone you love. That was really the essence of the experience, something based on my personal life, and my feelings and things that I experienced in one way or another.

But for me it's a big discovery, because then you realise that you need to have something to say if you're a film writer, or a novelist, whatever writer you are. But also if you are a game writer, you need to have something to say. For me this is something that is incredibly important.

It's also about writing a script that is really based on different paradigms. It's about having a journey, versus a challenge. A challenge is really a series of obstacles that become harder and harder. It's really based on skills, and as you progress you've got more and more obstacles and it becomes harder and harder.

The journey is a totally different experience. You want to tell a story, and actually what you want to do is just allow the player to experience this journey and really have the feeling of being in control of the story. But it's not about obstacles, it's not about challenges, it's about having this nice, emotional journey. And then you want to merge into activity in storytelling. Which is a very important point, I'll get back to this in a moment.

You want to have a story that is told through game play and not through cut scenes, which is something very important. I try also to get rid of mechanics, per se, especially when they are based on violence. Many games are structured around this idea that you have a series of actions that you can do that are usually violent actions, that will allow you to kill more enemies. That will allow you to progress through a level in order to get to the next level where more enemies will await you.

So, again, that doesn't work for this experience. We try to create games – *Heavy Rain*, *Beyond* – that are not based on violence. Which doesn't mean that you can't have any violence, it just means that violence is used in context. It serves the story you want to tell, but it's not a repetitive mechanic that you will play in loop, and it's not the core essence of the experience we try to create.

I mentioned that we want to tell the story through game play and not through cut scenes, and when you look at the way storytelling is structured in video games it's structured in a very interesting way. Usually you have a cut scene, and the cut scenes create the context for the story. And then you have the big action part. This is really about this violent action loop. But there is not really storytelling.

And then you have another cut scene, making the story progress, and then another action loop. So basically the story is told through cut scenes in most video games, which creates a strange balance you know, because each time you interact doesn't make the story move forward. Each time you don't interact you get some story, so it's not really interactive storytelling, it's really an action game with cut scenes.

And this is what we try to solve, find a better balance between the two. So when you write a script like *Heavy Rain* or *Beyond*, there are common rules with linear writing, and there are a couple of different rules. The common rules

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are really based on classic writing techniques; three acts, turning points, sense of closure etc, etc. All the things that all writers, all linear writers, know. So we need to respect these things. Where it becomes interesting is that you want to respect the structure whatever the path is that the player chose.

So, if he took this decision or took this branch or went this way in the story, you want to make sure that the structure and the pacing is always right. Which is another challenge for you as a writer. And then we have some specific rules that I use, bending stories. It's about constructing your story is like a rubber band, that the player can stretch and deform based on his action.

So what it means exactly is that instead of writing a linear story we try to define a narrative space in which the player can freely evolve. And we try to make the boundaries of this narrative space as invisible as possible. So you, as the player, you really have the feeling of being free, to play with the story the way you want. But you remain actually in the narrative space that the writer defined. This is very difficult to tune, very difficult to adjust, it's based on subtle rules that – as a writer – you absolutely need to respect.

It's the technique that goes with this specific type of writing. So now you have a script, you spend a year working night and day to write these bloody 2,000 pages, and you have something that only you can understand because it's so dense and with connections all over the place. You give that to your production team, they're about to commit suicide when they realise the amount of work that it generates, and then you're ready to go.

Let's start talking about virtual actors and how we create them. I'm going to use different examples from the different experiences that we create, and technical demos, and let's start with this video that is based on our experience working on *Beyond*.

Clip plays...

So, everything starts with this 3D scanner with Ellen Page, and basically we have a team of about 12 people scanning the face and body of actors. It's a really simple system. And then we create this mask, just to place markers on the face, and here we are on the motion capture set, and we can start working.

So as you can see actors are really free to move around, no wire, no helmet, no

backpack, nothing. They're absolutely free to act the way they want. And this is what we get, just moving dots. This is the result in the game compared to how we shot it.

So we can shoot as many actors as we want at the same time, make them interact, make them really play together. We'll get into more details of the different phases of what we saw, just to explain exactly a little bit more how we worked.

Let's move to another example, maybe you guys saw The Dark Sorcerer demo. Now you can see the real faces of the real actors. Our sorcerer is here. We did exactly the same thing, we did this 3D scan of the face and body of the two actors, and this is what we got. We have their entire shape, we know we have something really precise about their body, but also about their faces.

So not only do we shoot neutral poses just to get their face, their model, but we also shoot some facial expressions just to know how the muscles work under the skin, how they stretch, how they deform. So when we animate the face we will be able to respect this. And then the rest of it is really classic work with any graphic artist just creating a face, a body. And here we are, we have our sorcerer that looks really close to the original actor, same shape, same size, same body, same face, and his face deforms the same way as the original actor.

So you can play with the idea of copying, or creating a real avatar of the original actor. But you can also play with their faces, and make them look different. So to create the face of the goblin, as we couldn't cast a real goblin – we looked very hard but couldn't find anyone green – we started with the face of this amazing actor called Carl Payne. He was in The Cosby Show, and is a very, very talented guy.

The sorcerer is called David Gant, a British actor, very talented too. Basically we scanned his face and just deformed it, to create the face of the goblin. But you still have a structure for the face that is really similar to the original actor, which will guarantee that the facial animation will work very well. Now let's see actually how this thing works.

Just with some images taken from the Sorcerer demo, just to show you what a performance capture sequence looks like. Unfortunately I don't have any sound on this one, but you've got the idea, this is how we shoot. It's an empty set, we just have these small markers on the

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face, and the actors have no wire, no helmet, no backpack, nothing. We just have these props that are here, because he's supposed to touch all these things, all these props he's supposed to have contact with. So we need to recreate them at the same scale on site.

But all actors can shoot together, they can look at each other, they can interact together, they really play together. And we try just to emulate what is going on. This is the moment when objects are flying, but I'm going to give you another example of this, just so you understand exactly how it works. This other example is taken from Kara.

It's a very quick, very short example. You see the final result on this side, and of course how it was shot on this side of the screen. And actually, you can see that we have two guys playing with the robotic arms and just faking what's going on around the actress, so she has a sense of where to look and what's going on. When we touch her head she can look up, and everything is in sync. So it was something that was really choreographed very precisely on set, it's like a dance pretty much. We touch her arms, stretch it, and everything becomes really precise and of course in sync.

So the actress can really work and act as if she knows what's happening. You really need to help her, because there's nothing on set. She doesn't look like the real character, there is nothing around her, it's just her. So this is what's also very interesting, you need to deal with all these constraints, and the fact that there is actually nothing on set for the actor. No set, no wardrobe, no environment. You need to imagine everything.

And this is why directing actors in performance capture is a very special job. It's not like being director on a set. It's probably more challenging even than dealing with green screens. Green screens usually actors have a suit, sometimes, and you rarely shoot an entire film in green screen. Where here you shoot the entire game. So the role of the director all the time is to explain what's going on, and try to recreate reality on set so the actor knows what to do. It's a very different experience for actors.

I was fortunate enough in my career to work with actors of all ages, all experience, all styles. I started working with David Bowie on *Omikron*, working with actors of the quality of Ellen Page and Willem Dafoe. But I also worked with kids and with amateur actors, all styles. And it's very interesting, because when you make them discover performance capture they all have

the same reaction. It happened to us on *Beyond*, Ellen Page and Willem Dafoe arrived on the set and you need to imagine that you worked for a month, preparing them, sending them images of the set, showed them video, really prepared them as much as you could.

So they are not surprised, but still when they arrive on the first day on this big empty set, just looking around, they seem really disorientated. They look around and say 'where is the camera?'. Actually there are cameras all around, you have 65 cameras, 360 degrees. Okay, and what about the lighting? Don't worry about the lighting. Do I have marks on the floor that I need? No, you don't. Okay.

Usually they're really, really lost. On the first day you can read in their eyes 'what am I doing here? These people are crazy'. That's the first day. On the second day they seem to realise 'wait a minute, I'm free. I don't know what these guys are doing but actually they don't give me any constraints. There is no camera, no lights, no marks on the floor, no wire of any kind. We don't need to take care of sound or anything, so I'm free to act'.

And then they become really free, they really enjoy acting, because then it's like acting on stage. It's like being on stage with other actors, and you just focus on your partner. You just act. And this is what they really, really enjoy. That's something that was really very challenging. That's one aspect. We talked about the fact that the set is empty, and they there is no wardrobe, we need to imagine everything, but there is another part that is really challenging. The fact that it's like shooting different pieces of a puzzle through the course of a year, with about 160 actors.

And the thing is that when you shoot a film you shoot entire sequences, or entire shots. But here, when you shoot for a game like *Beyond*, you are going to shoot very small sequences. Sometimes you're going to shoot five seconds here or 10 seconds there, and sometimes you shoot them with a delay of six months. So you need to keep in mind what you shot six months ago, and to make sure that everything is consistent. So it's like shooting the different pieces of a puzzle that can be assembled, not only by production but mainly by the player himself.

Because depending on how you play you will combine different pieces of the puzzle in a certain way to tell your story. So it's really the player putting all the pieces together, which is something quite scary. But when you deal also



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with dialogue you need to mention that, if you're an actor, the way this dialogue is written is really non-linear. Which means that each time Jodie is supposed to talk it's the player who decides what she's going to say and the writing is done in a way that these different choices are really different.

So if you have a conversation between two characters you will have one choice that will be 'no way, I don't want to do this!' And the second answer will be 'yeah, okay'. And the third answer will be 'I don't know, let me think about it'.

So you will have three or four or five very different answers, with very different intonations and tone, and you want your actress to be consistent and believable, whatever she says. So the writing takes that into account, that means if she said 'no way' or 'yes' it's consistent with the characterisation. Jodie Holmes could say one or the other, it would make sense, it's written that way. But still, as an actress, you need to deliver that in a very natural way, that's spontaneous and really just being fluid and natural.

So the way we shot this with Ellen was very interesting, she just basically gave all the options in a row. She had a pause of two seconds and then totally changed the expression and gave the next line. Sometimes it was just a word, sometimes it was a paragraph it's really about how you deliver that that was really so important. She did a fantastic, fantastic job dealing with this constraint.

The role of the director, as I said, is something very important. You really want to work very closely with your actor because he can only count on his script, his partners and the director. There's nothing else. There was an actor who told me, you know, when you wear the wardrobe, when you play a role, this is the moment when you are the character. You become a character. Actually there's nothing like this in performance capture, there is no wardrobe, you just wear this silly mo-cap suit but still the need to feel like you are the character.

The consequence of all this is that it's important to have talented actors, for two reasons. The first one is that all this is incredibly challenging. Some actors think 'I'm doing films, I can easily do games. How hard can it be?'. Well they're wrong, actually it's incredibly hard. Talking with Ellen, she said several times, this is like shooting five or six films at the same time – which in terms of volume, is true.

But also what is very different, again with volume, is that in a film you shoot two, three pages of script day and that's a long day. We shot up to 40 pages of script a day. And it's not because we rushed or we were really incredibly fast, it's just because in a film when you want to change a scene to move from one set to another it's a big mess. You need to move the cameras, you need to move the lights, you need to move this and that, and make-up and hairdressing and all that stuff.

Nothing like that with us, if you want to move the set [clicks fingers] done. You just need to pretend that the set has changed, and there you go. So it's great on a production point of view, but for the actress she has just finished a scene so [wants to] rest a little bit, but it's done, we're ready. And you have eight hours a day like this, where you need to switch very quickly from one scene to another, but worse from one emotion to another.

So there was a scene where you were really excited, and it was really action packed, and the next scene you're going to cry, and the next scene you're going to be in love, and the next scene etc, etc, during the day. So emotionally and physically this is something that is incredibly exhausting.

And the second reason why we need talented actors, it's because now the technology has reached the stage where you can get the level of subtlety that these actors can deliver. Before that the technology was not there. Honestly, before performance capture and the latest generation of engines you couldn't really tell the difference between an excellent actor and a good actor. But now the level of subtlety, the nuances that you get are so precise that you can really tell the difference. Now we capture the movement of the eyes in a very subtle way, so we have things happening in the eyes of the actors.

Before that they all look like dead fish. But now we start to have expression, and it was very interesting on *Beyond* to film Ellen when she was not talking, she was just listening to someone. But just because of how she acted and the subtlety that we had in the technology you could tell, just looking into her eyes, what she thought and how she felt. Which was something that was absolutely impossible to do before that.

Let's talk about cameras, there's one thing I didn't mention before. One of the big differences between shooting a film and

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shooting a game is the fact that you have your actors and the point of view, the camera. They are captured at the same time. Once you've filmed you cannot change the angle of what you've shot. Here with performance capture it's very interesting because you can shoot your actors and make your camera later.

So it's two different stages, and it's very interesting because when you work with actors you can really focus on acting, because you know that there will be another stage where you will really be able to focus on cameras. Cameras, I'm going to show you how it works very quickly, we need to respect the rules of cinematography, especially in cut scenes. You don't want to pass the line in dialogue, and all these kind of rules that are established in cinema. We just need to implement them better, because these rules work for us in exactly the same way.

We want to emulate physical cameras. What I mean by that is that until recently most games were using lenses that were not consistent with the depth of field, and the general optical rules, because there was no physical reason for us [to do so]. These are different parameters that we can just adjust the way we want. And actually sometimes you saw games that looked really weird because the angle and the depth of field were not in sync.

It didn't make any sense, and you don't need to know about optics to see this, you just need to watch films and your brain is used to certain things, so we know when there is something wrong. So now we [have] developed physical cameras that respect the real rules of optics. And we have another interesting challenge, which is filming in cut scenes, which is really basically like shooting a film. Same rules, same thing.

And filming game play. The difference is that in game play you don't know what the player is doing. So many games just put the camera in the back of the character, but in the matter of cinematography this is not really interesting, this is just a camera in the back on the character – you have no sense of directing, no sense of filming. So we have developed very interesting technologies to still keep a sense of cinematography during game play too.

Very quickly let's have a look at how this thing works. I don't want to get too technical here, this is really high level. This is the tool we use to film *Beyond*, *Heavy Rain* and *The Sorcerer*. So basically it's a tool, it looks like any video editing tool, except that in the upper window

you can move the camera the way you want. And you can play with the different lenses, and see how they affect the camera angle.

So you can play with all this and these tracks, there's just the animations, and the shots, and you can really place the camera the way you want. There is no constraint. So I can put it wherever I want, and film. I'm happy with the framing, let's go with this. All this is real time. Just play in the tool, and you can create several positions for the camera and see what it's going to look like. I have this camera turning, I can re-size the block, and just have my camera moving. It's as simple as that, and you can change your mind 2,000 times. It doesn't cost anything, it's real time. Everything is real time.

And you just have your animations playing as long as you want, and there you go. Very, very simple. It gets more complex than that, but we won't dig further [into] that. These are some of the techniques that we use to create these experiences. The script, making characters, shooting in performance capture. I should have added the sound – that is incredibly important. And of course interactivity, that is something that we try to merge, cinematography and interactivity, to try to create an experience again where the story is told by the player himself, not by cut scenes.

So you want to turn the player into the co-writer, the co-actor, the co-director of the experience. It's a collaborative work between me as the writer and the player, to define his very specific and unique journey that will be different from the journey of different people playing the game.

Now, let's talk briefly about this is going to lead us – at least my take, I would say even my hope – for this industry in the coming years. I don't know how popular my ideas will be, but this is how I see the future for games. But first let's have a look at what games are today. We see a market that is really dominated by a few franchises, very high budget, \$137 million for *Grand Theft Auto V*. That's a lot of money. I think *Toy Story 3* cost \$200 million. So we get really close to the most expensive productions in CG. That's definitely something.

There are fewer games, but they are bigger. There was a time when you had many, many games and some were blockbusters and there was some middle range titles that were still very good, and some cheaper games that was shorter, with smaller budgets. But now it seems that most of these middle range titles have

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disappeared, and now we're just focussed on very, very expensive titles. It's crazy when you look at *Assassin's Creed 4*, it's 1,000 people working on it across seven studios.

It's an incredible challenge. I don't know how they do this, because how do you have a sense of directing, how do you maintain consistency across 1,000 people – that's a mystery to me. But I'm really, really impressed. But the thing is, because these games are so expensive publishers cannot really take risks with them. When you bet so much money you certainly prefer to do a sequel than an original IP. Less risk.

When you spend so much money you prefer to give the market what you know they expect, rather than try to imagine what they may want, without knowing they want it in a way, which is the goal of any creative medium in a way. So, as you go with less risk you go with less creativity, with less new ideas, you just repeat the same things over and over again. In this context it's very interesting to see the emergence of indie developers because they are in the opposite situation.

These guys have so much money that they can't take any risk, so they just give people what they want. Indie developers, they don't have money, they don't have resources, they don't much time, so they need to compensate that with creativity. They need to come up with new ideas, because this is the only way they can exist in the market, by creating something truly unique.

So if we need to talk about the future, this is not a character created by Quantic Dream, this is something from a very talented Spanish artist called Jimenez. But if we think of the future, photo realistic rendering is going to happen in the next five to 10 years for sure. There will be a point where you won't be able to see the difference between what's real and what's 3D. That's already the case here, you really think that's it's a real character, but it's in 3D.

So this is going to happen for sure. I'm hoping for a better merge of interactivity and storytelling. There are many teams in the world working on interactive storytelling, and whatever Mr Spielberg and Mr Lucas think – and I'm going to change their mind with my Shakespeare play, I'm telling you – there are people doing this and working very hard for years. And this is going to happen too. This is going to be something very unique and very exciting.

Especially because, again, it's going to allow us to expand our market and talk to people who don't play video games today. An idea that I've had in mind for a while is that instead of filming with a camera on your back, I'm thinking can we use AI to deal with the camera? And to have a virtual director.

So you could probably have a model of how Scorsese, for example, films. You could probably create an algorithm that uses this type of camera, this type of framing and these kind of lenses, and these kind of movements in general. And then you could probably have a script that sends to the AI system what's going on emotionally. This is a very stressful sequence. And then your AI moves to Scorsese mode whatever. I don't know whether he would like that.

This R&D doesn't exist, this is pure science fiction, I don't know of anyone who has done it yet. But I think it's an interesting way to solve our problem that we have when filming game play. In cut scenes, no problem, you saw the tool, you can do pretty much what you want. But with game play you don't control where the player goes, so you need to have something procedural. That would be a very interesting solution.

I believe we will see more and more collaborations with talents outside games. We have a lot to learn from these people. I was fortunate enough to work with these great talents, working with Hans Zimmer for example, and Lorne Balfe was something absolutely amazing. Lorne worked recently on *Inception*, and Hans worked on every single great soundtrack over the past 20 or 30 years.

He has such great experience, you can't imagine how much you learn just working with these guys. And working with Ellen Page and Willem Dafoe was just the same. They really changed the way I direct actors, because suddenly you have more than talent on your set. You have something that is difficult to describe. They have this little something that makes you more than a great actor, that makes you someone unique. And directing... having to deal with these people, is a fantastic experience that made me grow up, made my team grow up, and that hopefully players will enjoy. We have a lot to learn from people outside the games industry and we shouldn't be scared or reluctant of working with these people as long as the collaboration is a creative collaboration, it's not based on money on one side, and it's not based only on marketing on the other. It's really first and



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foremost a creative collaboration of people who want to share a creative journey together. Which was really the case regarding *Beyond*.

My personal wish is that we will go towards more meaningful experiences. You know, when I was talking about emotions before *Fahrenheit*, people were looking at me as if I was nuts. Emotion in games? What are you talking about? Tell me what gun you have, what car you drive, and how many levels. I kept explaining it's not about all this, it's about what you feel, and I was crazy during *Fahrenheit* and before *Heavy Rain*, and with *Heavy Rain* I got the feeling that people got it. Maybe I was better at implementing it or even explaining it, but with *Heavy Rain* I really got the feeling that some people out there understood what I meant by emotion in games.

Not to say that we did it perfectly, and that we have achieved anything, I'm just saying we tried to create this experience that was *Heavy Rain* and that moved some people out there and for us this is a fantastic result.

Now, after emotion, now that the industry goes in the direction that storytelling is important, yes emotions are important even if we work on first person shooters, I think the next big important evolution in the video game industry is meaning. Can we create meaningful experiences, can we create games that have something to say. Not just something to play, but something to say.

This is, for me, something very important. Can we create games that will talk about real people in real life? Real issues. What is it like to have a handicap for example. What is it like to be homosexual. What is it like to talk about politics, about real issues in the real world and not just about fantasy world and barbarians and whatever. Let's talk about real people. This is, for me, the real next gen feature.

So to answer this question, can video games become art, when someone asks the question [some] say 'why would they? What's the point?'. Isn't it cool to have just shooters, where everybody just shoots at each other? Yeah, it's a satisfying experience but at the same time we can also do something else, not to replace shooters just to offer something different to our audience. I have two reasons, one is creative, one is business.

The first answer is because it's a natural evolution. Game designers like myself, I'm in my mid 40s and I've played games since video games existed, when I was 10 or so. And, you

know what, I don't want to make the same games today [as I made] when I was 30 or when I was 20. My tastes have changed, I'm interested in different things.

I thought it was really cool to shoot at monsters when I was 20, but now I think it's a little bit boring because I'm 40. There's still a market for these people, and there are many people enjoying this and that's fine, but at the same time there are also people like me who are older, who have different expectations from their entertainment time. And if they can get an experience that is more meaningful and more emotional and more interesting they will feel more rewarded and they will be interested in the medium instead of watching tv or going to the cinema or reading a book.

They will [see] that playing an interesting game is as rewarding as these other activities. So it's about game creators like myself becoming older, and talking to many of them I can tell you that they want to do something else. They won't all necessarily say it loud and clear in public, but I'm telling you that this is really a widespread feeling. That it's time for us to do something else and to try to create something that works better for us.

But it's also the case for the market, it's not just game creators, it's also players like myself who are in their 30s or mid 40s and they started playing games a long time ago. Many people stopped playing just because they feel it's always the same. And yes, they enjoy shooters, but it's just more of the same. What else, what's new, what's there for them. I think this is a natural evolution for these two reasons; game designers are getting older, the audience is getting older.

And just the fact that we can have a wider offer, have more choices for our consumers which will lead us to my second reason. Expand the audience, let's make people interact, even people who think that this is not something for them, this is not something they can be interested in. If we come to them with the right experiences, with the right stories, with the right characters, if we manage to make our games more accessible – which is something [that's] also very important – then we will see many people coming and leaving *Candy Crush* to play our games.

Or leaving *Wii Fit*, that's an excellent example, I think they sold 60 million copies. You need to keep in mind 60 million is a big number, it's twice more than *Call of Duty*. That means something. People want to interact, we're just

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unable as an industry to give them experiences they can enjoy.

It's interesting to see the analogy with film industry. Film started with silent film as we all know, which was a very low quality, low resolution medium. Black and white, poor quality image, no sound. And when you look at the first films some of them are absolutely amazing, if you think of *Metropolis* or Chaplin, all these films are just masterpieces.

But the very, very first films that were made were much more about pantomime because the medium was so low res. that actors had to jump all over the place and scream and shout and do big moves so you could just get a sense of what was going on. They needed to exaggerate everything. And the kind of stories that they were telling were very simple, just because that's all they could do with the technology at the time.

Then technology evolved, even before sound was present. I was talking about Chaplin and *Metropolis*, there are many others. But technology evolved. Also the creators, the filmmakers and the actors got better and better and they managed to tell more interesting stories in a more interesting way. And then sound arrived and colour arrived, and then would make another gap in the matter of subtlety.

My gut feeling is that this is exactly where we are with games right now. We are at this point where we can stop making pantomimes to tell very simple stories, because the technology didn't allow us to do anything else. Now we can move to something more complex and more interesting, because the technology is there. And we can use it to say something.

There is a second very interesting analogy with film industry. It's what historians call the New Hollywood, this is something that happened mid 60s, early 70s. Before that big Hollywood studios controlled absolutely everything, they were financing very expensive blockbusters. Some of them ended up being disasters, like *Cleopatra* for example, was very famous for that. And directors, actors, writers were employees.

People like Marilyn Monroe, for example, she had a 10 year contract as an employee with a studio. And it was the case with most actors at this time.

And all the studios were making films about entertainment – there were some

masterpieces, don't misunderstand me – but mainly what studios were very expensive blockbusters with these actors that were employees. And then some people, including our friends Steven Spielberg and George Lucas, arrived at this moment and did something very interesting. They had a very big success as filmmakers working for studios, they made some money, and instead of keeping this money for themselves they founded their next film by themselves out of the studio system, because they wanted control.

They said 'I'm going to make this film the way I want'. And this new movement, called the New Hollywood, was really inspired by what happened in France. There's a movement called the nouvelle vague, but also by Italian neo-realism, and it brought a new generation of directors talking about different things in a different way. Making films that were darker, that were very different from the films that were made in the big studios.

So there are also people like Brian De Palma, Scorsese, Coppola and many, many others who really became who they are today because of this change in the system. So this is something interesting. When you think about it, if you remember what we talked about, about these big blockbusters made by major publishers and these small indie developers, based on creativity, there is maybe something similar here that may happen in the coming years.

We may see some Steven Spielberg and George Lucas coming out of these small indie developers who just have their talent and their creativity to exist. And big blockbusters won't disappear, and big studios won't disappear, it's just that there will hopefully be a better blend between studio productions and indie development to give more choice to the public and to the gamers in general.

So if we make some sci-fi here, this is what may happen in the near future. This is the new Hollywood of Games – that's the best title I could find. Very creative. Some creators become independent through self-financing, and why not. Crowd funding, this is something very interesting. It's another way to fund your games, where you don't need a publisher per se.

But they break rules and create a new language for interactivity, again, they need to be creative to exist. They talk about society and real humans, they don't need to make the same games again like the big blockbusters,

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they can take risks, so they can talk about different things a different way.

And they create new masterpieces, and new talents are revealed. They expand the traditional market of games and make them a new form of art. So this is sci-fi right now. I have nothing to demonstrate that, and I don't know if it's going to happen. But that's really my hope. What makes me think that it may happen one day is the amount of titles out there that are really amazing.

I just picked up a bunch, but there are many more. *Journey*, an incredible experience. *Papo and Yo* is a game I really love, it's made by a very small team in Canada and it's really about this kid who is molested by his drunk father. It's something incredibly emotional and incredibly powerful and absolutely unique.

There are other games like *Rain*, very interesting, *Gone Home*, many, many others. These people are the future of games. This is what I hope.

So I would like to thank you for your patience, we are releasing this game called *Beyond: Two Souls* on October 8<sup>th</sup>, it's the last three years of my life whatever that means. It's been a fantastic journey for me, for my team, for all the people at Sony and all the talents we worked with, Ellen, Willem, Hans and all the others. We tried to put all our heart and soul into this project, it was not just about creating another product and making some money with it. It was really about trying to pioneer something, test new ideas we believed in.

You know the end of the year will be full of big franchises like the one we saw, it's pretty much only that. *Beyond* will be one of the very few new IPs to be delivered between now and the end of the year, so I truly hope that gamers will give the game a chance. It's a different experience, I hope it's something you've never played before. It's definitely something we wanted, like an emotional journey. If you had an interest in everything I talked about today take a look at *Beyond*. Thank you very much.

APPLAUSE