

Mind, Body, interface: Kinect and you (Published in 360-Gamer Magazine)

Kinect has literally blown the doors off the gaming industry, creating a height of immersion never before experienced, offering new avenues for developers to journey down and new experiences waiting to happen. With the compass pointing in every direction, who knows where we're heading?

By now we have all experienced our furthered relationship with gaming. Be it through stroking cats in Kinectimals, shaking your thing in Dance Central, sweating over a game in Your Shape : Fitness Evolved or hearing the crowd roar in Kinect Sports, Kinect has not just improved gaming, it's reinvented the wheel. 'Kinect is a truly game changing device for a number of reasons,' says George Andreas [Design Director on Kinect Sports]. 'For starters, especially in Kinect Sports, it's the first device that allows a user to fully express themselves in a way they've never experienced before.' Indeed, for many, the thrill of this first stage or Kinect's life cycle may have nothing to do with individual games but simply the fact that their every move is mirrored on-screen, a ground breaking mechanic that, so far from a few buttons and a stick, truly puts the player in the game. 'One of the biggest wows people have when they first play Kinect Sports is seeing their on-screen Avatar respond to their off-screen motions perfectly. You really can't underestimate the power and effect that has on everyone, be they male, female, young or old. It really is magical.' Michael Ferron [EMEA Casual Group manager at Ubisoft] agrees, 'Kinect is very emotional because people feel the magic behind the technology. I really love that, both as a developer and as a gamer.'

Kinect is an abstraction to the gaming industry. Whilst we may all know and love traditional First Person Shooters, for example, the simple fact of the matter is that it's hard to feel truly involved whilst sat on a couch, our bodies slumped over lazily as a muscle-clad hero dispatches villains at the press of a button. For years, the gaming industry's answer to this has been to create virtual worlds loud and graphical enough to distract our minds, giving the illusion that our button presses are truly heroic actions. Games like Modern Warfare, Mass Effect, Halo and more are mammoth by necessity – to take us out of the living room and into the game; to make us forget that all we are really doing is pressing buttons. Compare this to traditional games of other forms. Card games do not need stories or virtual worlds, nor do board games, sports or any other activity based in real life because we are already engaged with them with our whole being and, to a large degree, we already have our own stories and relationships to our opponents when playing.

Where games have for so long been enjoyed for their ability to take the player out of the real world and into a virtual world, Kinect turns the tables by putting gaming right into the real world, or more specifically, right into the player, hence sharing the inherent emotions and sensations involved with real world games. The result is a natural, psychological joy as Kinect expands the meaning and purpose of a player's real-life movements. By tapping into the natural, biological sensations of the human body, Kinect gives the gaming industry a direct route to a much higher level connection to the player than ever before. 'The 1:1 tracking is impressive,' says Ferron. 'It is like motion capture in real time. The game knows what the player is doing immediately. The number of possibilities entailed by this in terms of reward, feedback and motivation is limitless.'

By virtue of Kinect's inherent ability to access deeper levels of the player's psyche – the natural result of engaging with much more of our body – Kinect allows even the most simple premises to become truly enjoyable experiences. There can be little doubt that a game of ten-pin bowling would be boring were it played via the traditional joystick and buttons format, but when the

player can engage with this relatively simple game with their whole body, it suddenly becomes a much more thrilling prospect. 'We've found that Kinect's 1:1 tracking has led players to be more creative when they play Kinect titles and in particular sports,' says Andreas. 'We've seen people bowl in very unusual ways, like throwing the ball overarm or like a baseball, for example, as well as trying to return the ball in table tennis while doing a 360 spin on the spot. This all adds to the fun not just for the player, but for the people watching too. No other sports title allows that much freedom of expression. The fidelity and feedback is great and allows people to really enjoy a unique sports experience.'

It is this natural joy of Kinect that Andreas points to that led developers of early Kinect titles to create minimalistic games. Nearly every Kinect title so far has taken its roots from sports and fitness, with obvious reason. The most direct means of having a player use their whole body is to recreate familiar activities from real life where the player does likewise : fitness, sports and dance being some of the most obvious. By working with themes that already involve full body movement, developers allow the player to get right to the heart of Kinect and start using their bodies in fun ways, focussing the player not on large, fantastic weapons or hideous villains, but on the player themselves, on their own motions, which automatically makes the gaming experience a far more personal one.

It is worth noting a similarity between launch titles : their stories and graphics are minimal. At this early stage it appears that Kinect titles are not dependant on distracting the player with large, fantastical worlds and eye-popping graphics, but instead are free to concentrate on the heart of gaming : gameplay. What this likely means – and certainly what has already begun to happen – is an expanded gaming universe with a much richer diversity of gameplay, not confined to shooters, beat-em-ups and other conventional genres. 'Kinect really does have the potential to open doors into other areas of entertainment that don't fall back upon the conventions of getting a high score or beating someone in a live match,' says Andreas. As Andreas points out, however, how far developers will choose to journey through these open doors is anyone's guess. In an industry currently crammed full of sequels and clones, and with an economic state that is far from conducive to optimism, opportunity alone does not equate to realisation. 'It all comes down to the developers and publishers being brave enough to explore these avenues and take a bit of a risk. If you go back several years and ask whether you would want to play a game based around simple maths questions, you'd say "no thank you," but Brain Training has proven to be hugely popular and has opened the door to different types of interactive entertainment. The industry has become very risk averse for a number of obvious reasons but it only takes one successful product to show the way.'

Already, many of Kinect's games have shown the way and with great variety. Your Shape : Fitness Evolved proved that fitness in gaming can be much more than a gimmick, that games can actually be a very effective training system; Kinect Sports offered – as well as a great deal of fun – a glimpse at the realism Kinect can give to sports games; Dance Central showed an ability to teach games players to dance – which is certainly no mean feat. Above all, however, Kinect has shown the potential breadth of the gaming industry as a whole. 'The truly wonderful thing about the video game industry, for me, is that it's not just a way of passing time any more,' says Andreas. 'It's becoming a way to learn, keep fit, socialise and involve others. We're creating different forms of interactive entertainment.' Indeed, so broad is the scope of interactive entertainment that it would

require divine insight to predict where the industry may head next, or even what the next year might offer for Kinect. As Andreas points out, 'Games can be anything we want them to be as long as they entertain and involve the player in interesting ways. Kinect will allow us to explore those avenues further.'

One of the most obvious new avenues for Kinect appears to be in training a player in various physical activities. For anyone who has played one of Kinect's dance or fitness games, there can be very little doubt of the system's ability as a teaching tool. The fidelity offered by Kinect – which has already been proven with the precise interpretation of aerobic moves in *Your Shape : Fitness Evolved* and dance routines in *Dance Central* – effectively means that games can now be used to teach a player any task involving movement. 'Self correction is key when you are practising fitness at home as with *Your Shape : Fitness Evolved*,' says Ferron. 'By seeing visual feedback on what is correct and incorrect, in terms of position or rhythm, consumers manage to correct themselves and get great rewards out of it. The fact that it is their own silhouette in the game, thanks to the Player Projection, makes it immediate, like seeing yourself in a mirror and being tracked.' Though with *Kinect Sports*, Rare and Microsoft Game Studios opted for a more casual approach, Andreas agrees that Kinect did offer the opportunity to create a much more serious, training-type game. 'We could have made the game super hard and super taxing on both the skill and fitness front, but ultimately we decided we wanted to make sure *Kinect Sports* was accessible to everyone whatever their fitness or skill level.'

Even at this earliest stage of Kinect's life cycle, it is clear to see that training games – which only became popular a few years ago – now have a clear channel through which to pass into the mainstream, and this will likely result in an influx of both new games and new companies, a trend already being set with the likes of zumba fitness (for which all exercises were designed by zumba fitness instructors and the game itself created by developer majesco) and the biggest loser ultimate workout (for which exercises were created by the team of nbc's biggest loser and the game developed by microsoft game studios). the mere premise of Kinect seems to scream of new ideas just waiting to happen. 'being a keen and regular football player myself, i can see all sorts of potentially exciting avenues you could take just that one sport with Kinect,' says andreas. if these physically demanding exercises can be dealt with by Kinect, why not other tasks? why not driving, cooking, exercises for children and so on, ad infinitum?

Needless to say, Kinect has already offered a great deal to the gaming industry, so it is exciting to hear Andeas state that 'The gaming industry has really only just started exploring what Kinect can and can't do, and from a game creators perspective, that's a great place to be. In *Kinect Sports*, we've overcome and resolved some of the biggest challenges and problems – like 3D depth perception and space awareness – whilst encouraging people to forget about using anything but their body as the main input device, but there's still a lot more to solve and uncover.' Perhaps unsurprisingly, given the emphasis on creating natural interfaces, all the big hurdles in Andreas' view revolve around interpreting a player's motions, emotions and communications in-game. 'Speech recognition, facial recognition and augmented reality, to name but three elements, can all be combined to create a truly amazing natural experience. If we look ahead towards the second and third generation Kinect titles, I think you'll begin to see an amalgamation of all of these ideas together with what we've already learned in one title that can really blow the doors off what people think the technology is capable of.'

With so many factors, including Kinect itself, pointing towards the idea of the player being in the game, it is perhaps only logical to wonder how long it will be before gamers no longer play as characters but as themselves. This is a point about which Ferron is greatly optimistic, having seen the potential of putting the player in the game in *Your Shape : Fitness Evolved*. 'We decided to use Kinect in a different way with the Player Projection in *Your Shape : Fitness Evolved*. For the very first time it is the player themselves in the game. There are a great many possibilities of bringing unique personalities and appearances to avatars when using Kinect : recording the way you move or behave is a possibility, recognizing what you wear and automatically dressing your avatar to suit is another, and don't forget what online could bring to the experience.' Andreas, however, argues that there is a limit to the amount of personalisation gamers want to see. 'Whilst some people love seeing themselves in the game as it were, many others prefer to hide behind an on-screen persona/avatar. We offer both in Kinect Sports. You play as your avatar but we show your highlights as you. We know people like to personalise their experiences, but you have to be careful when you talk about people's real likeness – we had issues a few years ago with *Perfect Dark* on the N64. We allowed people to use the GBA to scan in their photos onto the body of the game characters but had to remove the function for obvious reasons.'

Besides the fact that having gamers kill virtual version of each other would more than likely raise the critics' red flags, it is important to remember one of gaming's biggest lures : the idea of playing a hero. After all, who wouldn't rather be Master Chief than their regular, everyday self? On top of this, too high a level of personalisation would almost certainly kill the plausibility of many of gaming's greatest stories. A player is hardly likely to believe that they themselves are taking down the Templar Order in *Assassin's Creed : Brotherhood* or travelling worlds in a war against the Covenant in *Halo*. There is an inherent clash between high level personalisation and storytelling – namely that between reality and fantasy. Where then would the potential personalisation offered by Kinect fit into the gaming spectrum? 'I still think that as an industry we've yet to discover the genre that will become the vehicle for true character immersion and personalisation,' says Andreas. 'Experiments into true personalisation have been very basic and rudimentary at the moment, but it will come. It's only a matter of time.'

Whilst many casual gamers – and even those who have never played a game before – may be thrilled by the simple, 'plug 'n' play' feel of Kinect and its ability to train players in various skills, hardcore gamers could be forgiven for wondering whether this is yet another step in the progression of casual games and the decline of the hardcore. Rest assured, however, for as Andreas points out, 'When you have a title like *Halo* that can go on and sell 8 million-plus units around the world, that market is not going to disappear overnight.' Indeed, so long as there are hardcore gamers, there will always be hardcore games. It is only natural, however, for a business to want to draw in new customers. After all, more customers results in more profit – which also comes with the healthy byproduct of giving developers better resources with which to create better games. Besides, if gaming is to progress towards its true potential, it is imperative that it continually look for new avenues, for new ways to play and for new customers to attract. 'I liken it to the movie or music industry,' says Andreas. 'There are movies that everyone will want to go and see and there are movies that appeal to a certain audience – same with music. Games are going the same way. There will always be people willing to play hardcore games, but equally, those are not the only people who enjoy playing games today. The new market of games is about more than just shooting someone, driving faster or collecting the most lost treasure while sat on your coach. Entertainment can be far

more involving and interactive for a different audience and motion control is just one way of appealing to them.'

The complete lack of any remotely hardcore Kinect game is bound to raise many a suspicious eyebrow, but nevertheless it is easy to recognise the system's potential from a conventional gaming standpoint. For those wondering what innovations established genres may see, Ferron offers a few suggestions. 'There are incredible features to develop in traditional games with the 3D camera and Kinect. The 3D camera could be used, for instance, to personalize your in-game character in terms of features, like using the photographic rendering of the player's face. It could adapt the character to the way the player moves, interacts, speaks... . That will bring a lot of the real world's diversity into the gaming industry. Another idea could be to use Kinect for level creation, with a very simple user interface that puts level design in the hands of everyone. Tons of ideas could occur like those ones.' Ferron also makes a point that those truly fearing the rise of casual gaming, and those devoted to traditional control methods, should bear in mind : 'None of this is obligatory. when a pad makes more sense, it would be ridiculous to use the camera.'

It would appear as though many developers agree with Ferron's notion of using Kinect only when it is advantageous to do so, and using a pad at other times, and looking at Kinect's current market of games, those other times seem most apparent. Any keen observer will notice the lack of Kinect-exclusive games offering a fully navigable world. Most games using Kinect have the player set in a stationary position – dance games placing them on the mat, Kinect Adventures working via an on-rail system and Kinect Joy Ride simply tracking the player's hands as they turn an invisible wheel. Developers have yet to find a substitute for a joystick when it comes to actually having the character move throughout a virtual world. This point is made best by Harry Potter And The Deathly Hallows. playing out as a typical action-adventure game, Harry Potter And The Deathly Hallows does allow for navigation through a virtual world, but only half the game is playable via Kinect, that half being the on-rails shooter-esque spell casting section, suggesting that EA couldn't find a successor to the old stick for this purpose. Andreas, nevertheless, remains positive about Kinect's involvement in conventional games. 'I've always said this and I'll continue to say this right up until someone proves me wrong. I believe it's possible to create any type of game experience with Kinect, be that a sports title, a shooting title or even a platform game – not forgetting something completely new and different of course. But people are going to have to try and understand that what they play via a joypad may not translate exactly the same via Kinect.'

The fact of the matter is that the developer is at the mercy of the controller. The games of today are based off of the technology of the 360 (and PS3) joypad, with developers aiming to find the most intuitive and enjoyable gameplay to work around that control mechanism, not the other way around. As Andreas states, 'The input device totally dictates how you interact with a game. The experience of playing a shooter on Atari's VCS's controller – which had one stick and one button – is very different to today's Xbox 360 – with two sticks and multiple buttons.' Therefore, Kinect's design will be responsible for the types of games that end up being produced for it, meaning that hardcore games will inevitably be released for Kinect, but they will be tailor made for the system and hence could end up being radically different to their joypad-based equivalent. Andreas confirms, 'A realistic First Person Shooter game using just Kinect is most certainly possible, but it may not be what people are used to in today's market.' So it is that the gaming world is left with a most intriguing question : will the established genres remain principally as they are now when played on Kinect, and if not,

what will happen to them? Only time will tell. Thankfully, with titles like Steel Battalion : Heavy Armour, Child of Eden, Codename D and Rise of Nightmares on the way, the wait to find out shouldn't be a long one.

Interview: Michael Ferron on Kinect

360 Gamer: What were your initial impressions of Kinect?

FERRON: My first impression of Kinect came three years ago when we first got in contact with the 3D camera technology, even before Microsoft developed a full hardware out of it. The feeling of magic was already there, the immediate understanding that you are in the game as never before.

360 GAMER: Being a gamer yourself, what most excites you about Kinect and the influence it might have on the gaming industry?

Ferron: What excites me most are the American forums that you can read on Kinect right now: it excites people, it makes them react, it surprises them and they have immediate fun. This encourages us to go deeper on the capacity of the 3D tracking and how to make people get even more enjoyment out of the Player Projection that Ubisoft has developed for Kinect and that we use in Your Shape: Fitness Evolved and other games to come.

360 GAMER: A player's physicality has never really mattered before, but with Your Shape: Fitness Evolved you are asking a player to perform physical activities. Do you think that, through Kinect, a person's real-life character (and fitness) will now matter?

Ferron: First, fitter players are not automatically playing better as they will enter tougher challenges that match their level. I truly don't think that physical capacity will make a difference in the way we design our games. Sense of cooperation, coordination and maybe rhythm, yes, for parts of our games, but not pure physical capacities (thank goodness for that).

360 GAMER: Where do you see the industry as a whole heading? Will the games of tomorrow still revolve around the typical genres of today or will consoles become more of a tool for educating / training like in Your Shape: Fitness eEvolved?

Ferron: I like and push the idea of having both genres in the market. Traditional games bring an enormous sense of immersion, drama and accomplishment, like in Assassin's Creed, for instance. Those games are masterpieces where imagination and the creation of a complete fictive universe and experience are key. On the other hand, other categories of consumers look for a very immediate form of interactivity in fields they are more familiar with, like dancing and singing. A lot can still be invented in those fields, bringing new forms of interactivity and entertainment. It is not a case of one

genre versus the other, they are complementary, like TV programs where you love watching a great movie and have a great TV show just after that.

360 Gamer: Could casual games potential eclipse the hardcore?

Ferron: I think there is potential for everyone with new controllers. It is more interesting to go on giving a lot of fun and entrainment to our core consumers whilst also trying to find new ways of playing to attract new consumers. This is a dynamic of expanding the market that I find full of possibilities, especially when new controllers arrive every year or two. Killing one category for the sake of the other would be crazy.