

# Character: The next great gaming frontier?

May 13 2009, By Chris Buecheler, Crispy Gamer

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Recent releases like "Gears of War 2" and "Killzone 2" have offered gamers visual fidelity of unparalleled quality. For over a decade, improving visuals has been the focal point of development in gaming, and titles have advanced by great leaps during that time. We've also improved the audio in our games, and arguably even moved into telling deeper, more interesting stories. Text-adventure advocates may disagree with that last point, but certainly we expect a great deal more story from today's mass-market titles, such as "Gears of War," than we did of titles like "Bubble Bomb" or "DOOM."

Unfortunately, the characters that populate our games seem to have been lost in the shuffle. One could easily argue that modern gaming characters are shallower and less compelling than their ancestors, some of whom had great reams of text-driven dialogue to spout. Even in a Game of the Year-quality title like "[Fallout 3](#)," we're still presented with primary story characters about whom we know virtually nothing, and with whom we have a hard time forming compelling, coherent relationships.

What makes a game character compelling? How can modern games improve in their efforts at presenting players with characters whose complexities come even close to equaling the rendering marvels of which those same games are capable? Before we proceed with answering those questions, let's define what we're talking about when we use the term "compelling" in the first place. Many people out there -- most of them men -- find big boobs in a tight shirt pretty compelling. So, too, do many people out there -- again, most of them men -- find thick-necked bad-asses with huge guns pretty compelling. Let's face it: if you paired

Marcus Fenix up with a voluptuous, leather-clad female cohort and sent them off on an epic battle against the forces of evil -- broken up, perhaps, by a "Mass Effect"-style sex scene or two -- a whole lot of gamers would find that highly compelling.

The question, though, is whether that means the characters themselves are compelling, or whether the simple archetypes they represent, in combination with the gameplay itself, are what keep gamers interested. I don't think it's a stretch to say that the latter is likely the truth. The most interesting thing about Fenix is that he's voiced by the same guy who played Bender in "Futurama," and most female characters, while often nubile and under-clothed, are about as deep as a puddle on a hot day. These, then, are not who we're looking for in our search for compelling characters in our games.

Let us ponder instead one of the most celebrated characters in modern gaming history: Alyx Vance. In "Half-Life 2" and its subsequent episodes, we see Vance go through a range of human emotions. We see her angry, and we see her terrified. We see her elated, and we see her in the blackest depths of grief. We see her hurt and vulnerable, healed, shaken, on the attack, invulnerable (quite literally), amused, threatened, embarrassed. We see her infatuated and perhaps beginning to fall in love with the main character of the series, Gordon Freeman, better known as you, the gamer ... a fact that has been observed before, and with a cynical eye, by other writers. Regardless of one's opinion on manipulating the player's heartstrings, it's hard to think of a videogame character that goes through more emotional and mental states than Vance does. Whatever it is that Vance may be, she is most certainly not Lara Croft. What she is instead is a rare and beautiful thing in the world of gaming: a character with some depth.

Not a lot of depth. Let's be honest here: We have yet to see Vance express any more-than-token nods to many of the less-pleasant human

characteristics. She is rarely jealous, appears unwilling to lie or cheat for either political or social reasons, and displays neither hypocrisy nor selfishness. She is without greed, is never smug, arrogant or self-satisfied, and is as loyal and dedicated to both her father and her cause as one could possibly hope. Her brilliant white teeth suggest that even personal hygiene is not outside of Alyx's daily attention; apparently, when the Seven Hour War occurred, great stores of Crest Whitestrips were hoarded by members of the resistance. This is a woman whose main flaws, as best we can tell, are a tendency towards goofy humor ("That must be a 'zombine' ... get it?") and a short battle with self-doubt when confronted by the same creature which at one point stabbed her in the abdomen and nearly killed her. Speaking as someone who hates getting stabbed to death, I don't think I'd be thrilled about another encounter of that type either.

This, then, is the state of gaming. We have reached a technological point where fast, fluid photorealism is at hand. We can render tiny halls and vast expanses in great detail, often without the slightest hitch, drop in framerate, or even load time while moving between the two. Our game characters have multilayered skin textures, cast soft shadows that blend and change with the dynamic movement of light, and even have hair that can wave and shift in the virtual breeze. The steps that computer gaming has taken visually in only 10 short years are nothing short of amazing, and in the next 10 years we will see games which make today's high-resolution titles look like the original "Super Mario Bros.," or perhaps even "Pong." This is the digital future, driven by the law of accelerating returns, where things can only get better, and at an exponentially faster pace.

Why is it, then, that a character like Alyx Vance represents arguably the pinnacle of our achievements in producing a realistic virtual human? Vance is simply not realistic; she offers the very best of humanity, but reflects virtually none of its flaws. More importantly, she is incapable of

reacting to her environment, and cannot change or grow as a person. She is a programmed automaton -- a mannequin with a voice -- one whose every movement, gesture and facial tic is purposefully scripted to achieve a very specific, and usually very positive, reaction from gamers. There's nothing inherently wrong with this, and in many ways Vance and the technology that powers her represent an incredibly important step for gaming -- but she is not a human, nor even truly a simulation of humanity.

The answer to the questions asked at the beginning of this article -- what makes a character compelling, and how can we pursue this effect in modern games? -- actually lies in the same realm of programming as the visual technology which has overtaken character development by leaps and bounds: simulation. Modern videogame rendering has moved with ever-increasing speed and precision toward simulation, rather than scripting. Not content with burned-in lighting, developers have moved to ray-tracing technology, coupled with advanced texturing techniques like bump and normal mapping in order to simulate depth. Not satisfied with simple animation, complex shader code has been written to simulate the movement, reflection and refraction of light on various materials. These technologies are still nascent, little more than teenagers in the total lifespan of world-rendering technology, and there are many great leaps yet to come. Still, if our visuals have reached the teen years, our characters are just now learning to walk.

For an example of simulated behavior that works, and works well, we once again need look no further than our "Half-Life 2" heroine. Episode One quietly debuts a feature that is so minor, it's fully possible many people who played the game never even saw it: When the player shines the flashlight in Alyx's face, in a dark area, she squints her eyes and covers them with her hand. This is a simple feature. It probably took no more than an afternoon to program in. Nonetheless, it represents an important step not in technological terms, but in terms of developer

mindset, and it's to Valve's credit that it recognizes this and notes it in its "developer commentary" feature. This gesture humanizes Vance in a way that leagues of scripted sequences can't. No longer is she following an invisible line, gesturing at preset points and speaking preset dialogue. In cinematic terms, Vance is no longer acting; she's reacting.

We as gamers crave realism. We want to be dazzled, but more importantly we want to believe in what we're seeing. When Vance places her hand against an elevator door, and furrows her brow, and tells us to be careful, it's touching ... but it doesn't feel real. When we shine a flashlight in her eyes and she grimaces and pulls her arm up to block the light -- something that no game character has ever done before -- we see in her the very earliest sparks of sentience. For a brief, simple moment the automaton is set aside, and what we see instead is something human.

If we are to achieve the realism we crave in our games, then the time has come to spend our processor cycles on something more than environmental fidelity. While there will always be an audience for the Marcus Fenixes and Lara Crofts of the world, there is also a growing crowd of gamers who have come to know characters like Alyx Vance, have appreciated that contribution to gaming, and are looking ahead toward the next step in simulated humanity. Time and effort must be spent on technologies like intelligent response systems, dynamic emotional reactions and procedurally generated dialogue. It is time for the next strides to be made in the field of artificial intelligence. Our characters must cease to be scripted, and instead become simulated. Like Pinocchio, they must become real.

With this, games can and will evolve into an art form unlike anything seen before: true virtual worlds, lushly rendered and filled with reactive, compelling characters. Without it, all we're left with is a world that is beautiful but ultimately dead, populated only by robots pretending to be alive.

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