

In the near future and beyond, our advancing technological capabilities will most likely play a more important role in how we interact with games. Already a future trend in games is for them to be more interactive enabling the player to become part of the game itself, taking the idea of first player capability to a new level. The next generation of games is taking advantage of this emerging technology by incorporating the player further into the game, by adding in the physical.

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The futurist (www.thefuturist.co) has already begun to examine some of the ideas technologists have come up with for video games of the future. Instead of the current trend of 3D environment games (such as PlayStation's Crash Bandicoot, or Grand Theft Auto III), future games could have the players moving freely within the game. For example, 3D multi touch is a prototype that uses hand detection to enable the player to grab objects closely. This technology incorporated into a game may enable the player to grab a sword and physically defend themselves against opponents.

Another emerging interactive technology is Natal's 'Milo' being created for Xbox 360. The technology that has developed sees the character 'Milo' recognising faces, voices and emotions, enabling him to fully interact with the player. This allows the player to feel connected to 'Milo's' world as it is like meeting a real person on screen. The technology involved in Xbox 360 means that every motion and hand movement by the player is being recognised and informs what 'Milo' chooses to do. A video clip from www.thefuturist.co shows the player drawing a picture of a fish and showing it to 'Milo'. 'Milo' looks at the image (i.e. scanned by Xbox 360) who then comments on it making the player feel connected to the game. This real-time interaction is also carried over to images on the screen reflecting the players every hand movement. For example, the technology has recognised that the player has swished their hand through a pool of water, creating a ripple, which is then reflected in the pond onscreen.

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Other probable future developments may be games, which all the player has to do is think of an action and it will be done. For example, the player could think about casting a spell and it would be done instead of pushing a key to enable the action. This cognitive genre of game may already be emerging with the 'emotive EPOC' technology (www.thefuturist.co), which is based on human interaction in a virtual environment.

This next generation of game may allow the player to interact on a more personal level, using such things as expressive detection, which means the technology recognises and understands facial expressions, such as a player smiling. The virtual environment (an onscreen character) would recognise this expression and incorporate it into the character allowing it to become more realistic. By adjusting the game to personalise the player's experience, the character becomes more intuitive, intensifying the mood of the game for the player.

We make our technologies and they in turn shape us. Rapid advances in technology are challenging our perception of what it means to be human. The idea of technology being implemented into the human body, enhancing our capabilities, correcting flaws and defects, boosting our natural abilities is blurring the boundary between humans and machines, making us question what we are becoming. 3

It is recognised that human qualities and values have played a role in both the creation and the use of technology with advances in games following this trend. Developments in gaming technology are often linked to the wants of the player, such as players wanting more realism, which results in more complex games being developed (3D and online mega games). Technology at first was a tool, but as technologies developed, so did the idea of Artificial intelligence (AI), a machine that is an extension of the human 'mind'. In recent years, this idea of a 'cyborg' machine that comes close to the ideal human body is often portrayed in movies, such as StarTrek's cyborg 'Data' or in iRobot starring Will Smith.

This blending of technology and human characteristics into machines is reflected in the more complex games on the market today, how we interact with these games and any future developments. Technology when incorporated into games allows us to make decisions and learn from them in ways that may not be possible in real life. ¹¹ This alternative reality allows the player to become who they want to be, as does the realism of human characteristics evolving in games to better reflect our body shape, motor skills and dexterity. Learning through play is not a new concept and today's games reinforce this drive to learn new things, for example a more realistic character that has the capacity to make decisions (Xbox 360 'Milo'), will ultimately influence the way in which we view what it means to be human]