

## This video game knows when you're scared — and it wants to use that against you

There is hope that biometrics can not only improve video games but also help create experiences that can be psychologically beneficial.

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Bring to light (Red Meat Games)

Keith Makse, (...) the developer behind “Bring to Light,” a horror video game that drops a player into a subway system filled with lurking creatures, designed the game to take in readings from a player’s heartbeat and incorporate that data to make the experience as scary as possible.

“Nothing makes your heart race faster than [hearing] a racing heartbeat,” Makse said. “If you are wearing the heart-rate monitor sometimes you can hear the heartbeat... and it’s your own heartbeat that you hear.”

“Bring to Light” is one of only a few video games in the industry that uses biometrics, in which the physical responses of a player’s body alters their in-game experience — and improves the game for other players as well. Makse’s system reads a player’s heart rate monitor to change their experience and amplify the terror they feel in real time. (...)

Makse and his team at the Canadian game development studio Red Meat Games released their new indie game in July (on Friday the 13th, naturally). To escape the terrifying reality, gamers have to use light to solve treacherous puzzles and evade creatures that can sense their terror.

“Horror is designed to allow humans to experience the sensation of fear without actually putting themselves in any physical danger,” Makse said. “This is a safe way of getting in touch with those emotions.”

Using biometrics in video games was first explored in the early 2000s with some experimentation of human-computer interaction from academics and psychologists. Among the earliest attempts to introduce biometrics into a commercial video game came in 2015, when Erin Reynolds launched “Nevermind” (...).

While horror games are a relatively small niche in the broader industry, there is optimism that biometrics can help create video games that can offer a certain amount of psychological benefit. Reynolds called her game “a stress management tool disguised as a video game” that aimed to help players recognize and conquer their anxieties. “For the first time, you have a two way conversation between a person and a video game” Reynolds said.

In each level in “Nevermind,” players (...) are forced to live through characters’ vividly horrifying experiences, facing psychological trauma or post-traumatic stress. Players must remain calm as they confront progressively scarier scenes.

The biometrics in “Nevermind” were originally only measured through a heart rate monitor and had an emotional component via technology that looked for micro-facial expressions as evidence of anxiety and stress. If the data indicated gamers were experiencing increasing stress, the game would introduce a new obstacle or added layers of difficulty.

Another game called “Mindlight” was created for children with anxiety and uses a headset that can read a player’s brainwaves. Players must remain calm to proceed in the game.

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