Gaming Technology Helps India Prepare For Terrorist Attacks

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REAL THREAT
VIRTUAL RESPONSE

This 3D model of Bangalore's Garuda Mall would be right at home in a modern video game, but it's much more than that. It's part of a simulation aimed at helping emergency response teams deal with the all-too-real possibility of a terrorist attack.

Terrorism is a major issue in India. Over the past year alone the country has seen multiple devastating incidents, from the February explosion at a German Bakery in Pune that left 14 dead and more than 60 wounded, to the December bombing in Varanasi that killed a toddler and saw more than 20 injured in the stampede that followed. Fighting terrorism is a key national priority in India.

Just as important as fighting terrorism, however, is being prepared to react when a terrorist attack lands. Crowds driven into a frenzied panic by a sizeable explosion are nearly as dangerous as the explosion itself, and it's up to emergency personnel to assess the situation, assert control, and help maintain calm during and after these tragic events occur.

While policemen, paramedics, firemen, and security personnel are all trained on the basics of disaster management, it's hard to accurately predict how people will react when tragedy strikes.

That's where The Centre for Study of Science, Technology and Policy (CSTEP) in Bangalore steps in. They're developing an as-of-yet unnamed game that simulates an attack on the Garuda Mall as a method for helping emergency workers develop a response to a potential attack on the real world location.

The Garuda Mall simulation is being designed as a multiplayer game, with players taking on the role of firemen, police officers, and other emergency workers, working together to help minimize the loss of life following an explosion at the popular gathering place.

The project is the work of NGIL, the Next Generation Infrastructure Lab, a team of 14 at CSTEP that develop both video games and pen and paper simulations to help deal with real-world problems like energy policy, power price discovery, and supply-chain management.

The Garuda game is part of a larger partnership focused on dealing with the issue of disaster management, helping develop responses to both natural disasters and terrorist threats using cutting-edge technology.

How cutting edge? How about Crytek's CryEngine3?

> "It is an expensive engine," says Bharath Palavalli, a computer scientist with Next Generation Infrastructure Lab (NGIL), "But the developer (Crytek) shares it on a non-commercial (basis) with not-for-profit organizations like ours. Assets like the Garuda Mall simulation and artificial intelligence that we develop for this game will go back to the developer's library."

Hopefully one day a game like the Garuda simulation won't be necessary, but until then it's good to know that gaming technology is being used in a manner that could one day save many lives.

Disaster Management [CSTEP]
Gaming in disaster management with constraints, objectives [LiveMint]