

MIT's Media Lab develops 'Infinity-By-Nine' immersive video projection system (w/ Video)

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(Phys.org) -- Daniel Novy and V. Michael Bove of MIT's Media Lab have developed a new way to create a more immersive viewing experience for movie watching or even game playing. Called "Infinity-By-Nine" the system consists of a computer, wall and ceiling panels and a ceiling projector. Together they enrich the viewing experience by adding an enhanced form of ambient lighting, using sampled content, to the viewer's peripheral vision, causing the viewer to feel more drawn into whatever is happening onscreen.



The system takes advantage of the fact that peripheral vision in people is blurry; it's only when the eyes move to focus to the sides that the things that exist there come into focus. Thus, any video displayed to the left or right of a television or computer screen need not be clear or sharp and in fact, as the two have shown, it doesn't even have to contain any new information. What they have done is sample pixels hovering at the edges of the actual straight ahead video, and stretch it to the sides using a ceiling mounted <u>projector</u>, creating a wall of blurred images that mimic what the viewer interprets as more information going on at the edges of their vision. The sampling is done in real time, which means the blurred colored images on the left and right panes are constantly changing, always synchronized with whatever is going on with the real video on the screen the user is watching. The overall effect, the researchers report is a far more immersive experience than when watching the same content on just a simple screen. What's more the entire system has been put together using consumer accessible hardware and open source software toolkits suggesting that others, if they so wish, could build a similar system on their own.

So immersive is the experience, that some of those enlisted as volunteers to test the system have reported synesthetic effects, which is where other senses become involved in the viewing experience, e.g. feeling the heat from the fire after an explosion on screen.

Unfortunately the researchers have no plans at this time to market their project, which means it will likely take someone else with more financial ambitions to replicate their efforts and turn it into something people at home can buy and enjoy.

More information: <u>labcast.media.mit.edu/?p=262</u>

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