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## Find your next must-play game by flying through a virtual galaxy



Surpass the wisdom of the crowd  
Ralph Orlowski/Reuters

By Douglas Heaven

THE constellations spin dizzily, 15,000 stars against the blackness. Click, zoom in, and individual dots pop up from the nearest clusters: *Everybody's Gone to the Rapture* (2015), *Red Dead Redemption* (2010), *Nancy Drew Dossier: Lights, Camera, Curses* (2008).

This is GameSpace, an experimental online tool designed to help you find the next video game to play. It doesn't just work for gamers, though – it could soon make life a bit better for anyone looking for the next great book or movie.

Like the rest of us, gamers can't keep up with all the new titles constantly being published. "The accumulation is ridiculous," says James Ryan at the University of California, Santa Cruz.

Apple's App Store has around 800,000 games, with several hundred new ones added every day. Even if they're great, many will get lost in the crowd.

So Ryan and his colleagues developed GameSpace as a better alternative to the algorithms that give us tips like: "People who watched *Breaking Bad* also watched *Better Call Saul*."

These often work well, with one big caveat. "Recommendation systems are self-fulfilling," says James Allen-Robertson, who researches digital media at the University of Essex, UK. People who rely on them end up in a bubble, with the system only showing them games or films like ones they have already enjoyed.

"We wanted to build a tool that cuts through the morass," says Ryan. "We wanted to capture how people actually talk about games."

Instead of relying on the opinions of those who might also be trapped in their own filter bubbles, the team turned to Wikipedia descriptions. They used natural language processing software to scan 21,456 game descriptions there. A machine learning system then generated a similarity score measuring how alike any two games are. This score is what the team used to position the games in the 3D galaxy visualisation.

The tool has already thrown up some surprises. Why was a game about breakfast cereal sitting next to *Doom*, for example? "I thought the algorithm was broken," Ryan says. But it turned out the cereal game was indeed an adaptation of *Doom*. "Not only was it not broken, but it was really cool the way it was bringing up related games," he says.

One shortcoming is that the tool is limited by what people happen to have posted on Wikipedia. Japanese interactive novels are really well represented, for example, but much more popular sports games are not.

Extending the work to books and films should be possible for any title with a Wikipedia description, says Ryan. You could even build a tool that let you fly through Wikipedia itself, he says.

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*This article appeared in print under the headline "Galaxy of games bursts filter bubble"*

#### Article amended on 20 July 2017

*We corrected the manner of the announcement of GameSpace*