Game theory can help protect against terrorist attacks

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A new article explains how game theory and algorithms are being used to optimize security and patrol schedules to prevent terrorist attacks.

In the *Significance* article, Dr. Thanh Nguyen notes that defenders must perpetually defend numerous targets using a limited number of resources, whereas attackers are able to surveil and learn defenders' strategies and attack after careful planning.

Game-theoretical algorithms can be used by defenders to optimally randomize their patrols so that attackers cannot predict which target defenders are going to protect at any given time.

"There are applications deployed in the real world that have led to measurable improvements in security," said Dr. Nguyen. "For example, games and calculations of this sort have been used by the United States Coast Guard since 2011 to protect both passenger ferries and ports."

More information: *Significance* , DOI: 10.1111/j.1740-9713.2016.00978.x

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