

We Need an Adaptable Evacuation System

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r. Loke Kar Seng and his student, Chee Hin Foong have developed a concept which changes the way emergency response teams are deployed during a natural disaster. Their dynamic evacuation plan for urban areas won the country prize in the UN Big Ideas Competition for Urban Issues using Data Innovation.

Their concept is an app which uses both public and crowdsourced data to provide a personalised evacuation plan which takes the reality on the ground into account. It will advise the user on the fastest route to an evacuation shelter avoiding congested areas and bottlenecks.

The system uses a resilient distributed technology called a blockchain as a central repository of information. The same technology is used in cryptocurrencies like Bitcoin.

The proposed app informs users about the impending disaster and leads them to the nearest shelter using location data from the app. It will point out the location of the nearest available shelter and will distribute traffic according to the shelter's capacity.

The biggest advantage is that this app constantly updates ground data, making it more effective and efficient as it gets the right information to the user at a crucial time.

The images of natural disasters stayed with me and that's what led to this idea. When disaster strikes, people panic and have no idea where they should go.

Kar Seng teaches computer science related subjects at Swinburne Sarawak. His research interest lies in neural networks and artificial intelligence; especially concerning computer vision.

