

We spend much of our lives surrounded by network congestion.

It could just be the annoyingly large number of people who happen to have the same travel plans as you, or just queuing at a checkout.

What if we have a central coordinating figure, who will direct the traffic so that the total delay for everyone is minimised?

However, that is the realm of fictional totalitarian regimes, and in reality, people will tend to behave to minimise their *own* costs.

So, given these selfish users, how much worse is the total cost? This is the study of *selfish routing*, which is a topic at the intersection of game theory and computer science. Game theory, which is often used in economics, looks at the interactions when you have different players in a game.