

CS3600 Wrapper 1

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Question 2

Given that the heuristic at later states gets ignored, adjusting the speed limit would directly adjust the path cost thus adjusting the algorithm's solution. This would effectively deter cutting through the neighborhood but in extreme cases in which traffic is high, the time costs would route through the neighborhood. Adjusting the heuristic would equally adjust the f-cost and node expansions however the final algorithm cost would remain consistent and still use the neighborhood as a path. Neither of these would truly prevent cutting through the neighborhood, however it would deter some traffic if the costs were extremely inefficient. Furthermore, if the heuristic has vast inconsistency, then there is a potential case where a person who lives in the neighborhood may not get home; however, since their start or end is within the neighborhood, the initial start or end node would be within the neighborhood thus, the generation of routes should be innate to that location.

Question 3

While in its current rendition, AI navigation apps are effective in guiding around traffic. These apps have pros and cons however, in a city where traffic is consistently updating the implementation of artificial intelligence to discover new pathways is beneficial. The time consumption of sitting in traffic can be irritating and furthermore, delivery-based services are able to keep their consumers content with optimal pathing. The downsides are the group adherence to causing traffic in residential areas, as if all the users are rerouted to smaller roads not built for the traffic, the area is clogged up for residents within the area. Despite this, the impact of route planning systems is effective for achieving the fastest route possible.

Question 4

The reliance on AI systems can limit the capabilities of the critical thinking and action taking. With route planning systems, there is a decreased desire to learn routes within cities as at your fingertips there is an app that removes self-application by instantaneously giving an answer. Instead of the potential of exploring new areas, these apps confine routes and promote disinterest in appicated driving. Along with this disinterest comes the burden of safety as people diverge their attention from the road to their phones causing less preventative driving measures. Taxis within London are notorious for not using any sort of navigational devices, which promote memory recall and safer driving practices as the drivers innately know the city's ins and outs.