# Navigation and Pathfinding

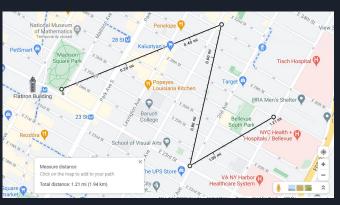
## What is Pathfinding?

- Google Maps

- Chess vs. Checkers

- Mouse in a Maze





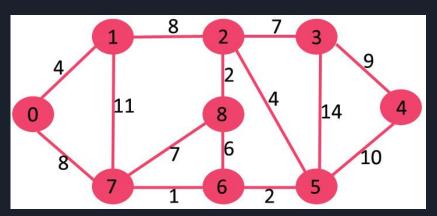
### Navigation can Take Many Forms

- Dijkstra's Algorithm

- State Space Search

- Depth First Search

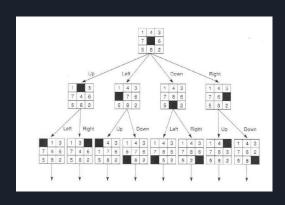
- Breadth First Search



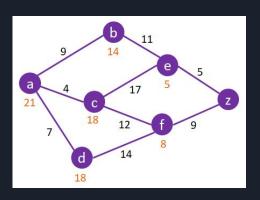


## State Space Search and A\*

State Space Search



#### A\* search algorithm



## How can People Improve Navigation

- Improve Computers
- Improve Algorithms
- Improve Databases

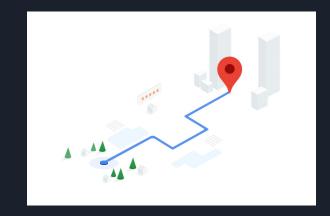


## Computers are Getting Better by the Hour

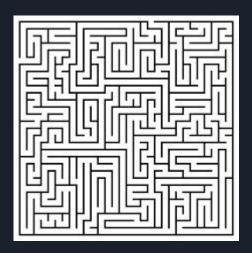
- Al
- Improved Heuristics
- Faster Computers
- Quantum Computers







## Thank You & Q&A



#### Sources

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