

INTRODUCTION/ABSTRACT

Artificial Intelligence is advancing and becoming more integrated in our society. As a student, commuting is important and factored into the day to day. The RTA is used by a lot of students and is unpredictable as well. AI can be used to determine wait times and bus routes which helps students. We want to research and expand on how AI helps students with an unpredictable means of travel that is the RTA.

OBJECTIVES

The use of AI to measure RTA bus times for students can help improve transportation systems and provide a better experience for students. By improving accuracy, increasing efficiency, providing reliable transportation, improving safety, and reducing costs, AI can help transportation planners and school districts better serve their students and communities.

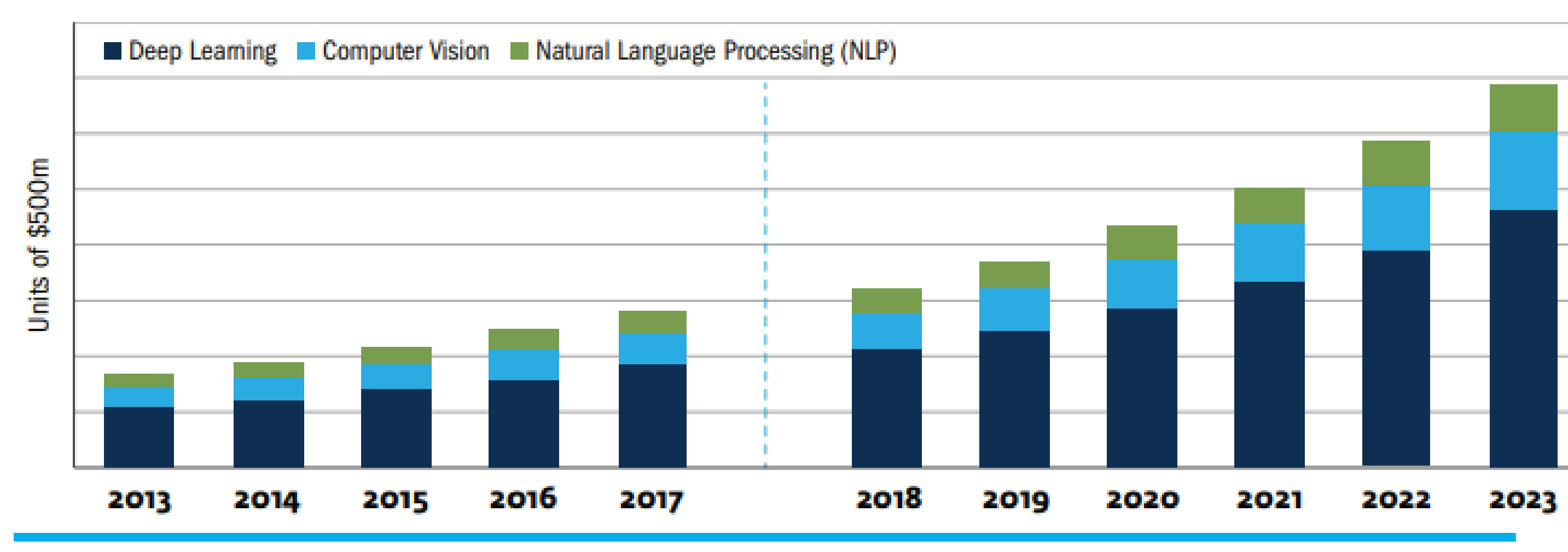


Figure 1. Global Artificial Intelligence in the Transportation Market by Technology, 2013-2023 (US\$ Millions) (from IFC report)

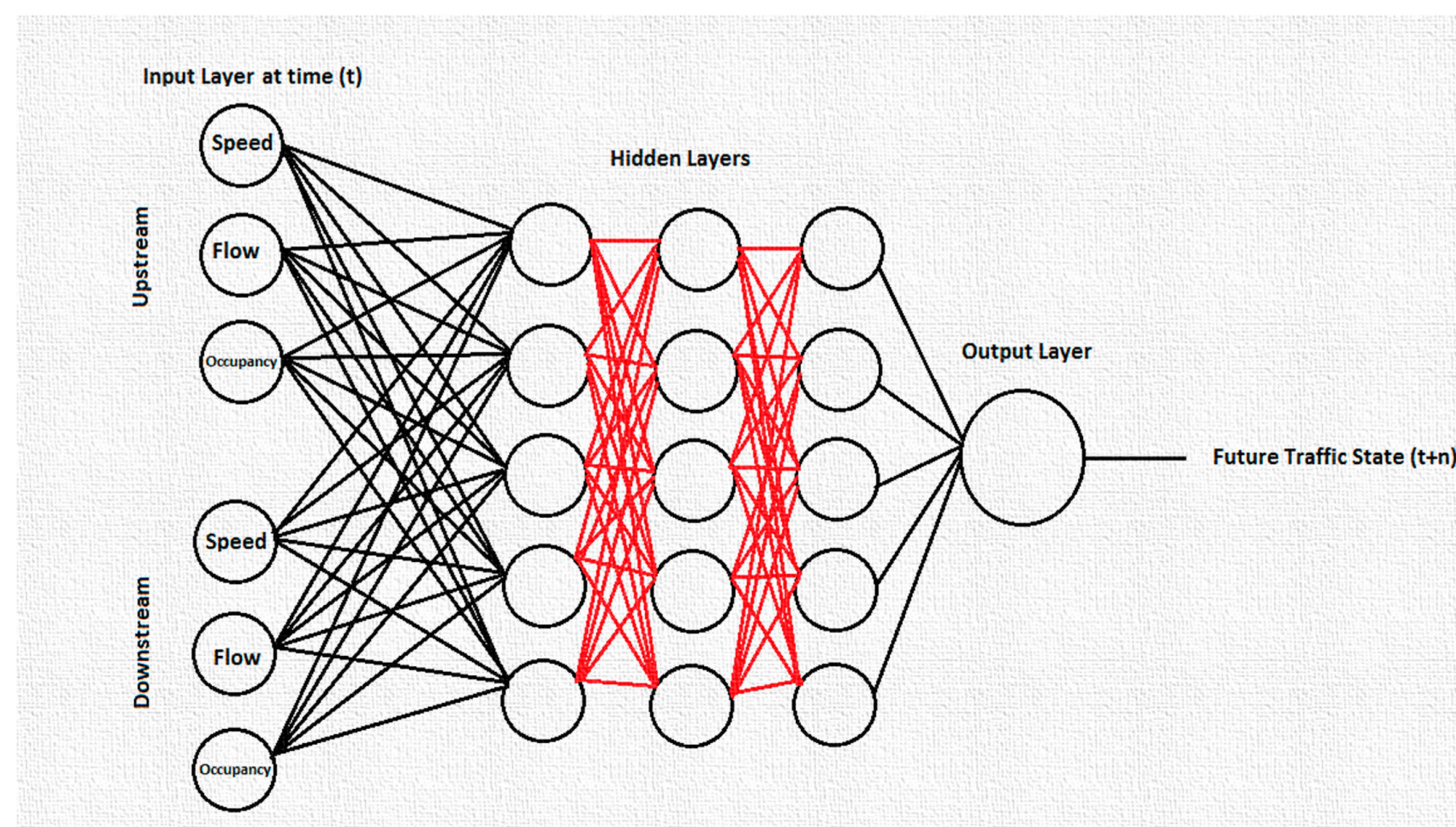


Figure 2. A diagram of the basic flow of deep learning AI



Figure 3. Buses in Dubai are using AI to reduce costs and travel times

METHODS

- We reviewed sources about the usage of artificial intelligence in various forms of transportation with a focus on public transit and buses.
- A majority of AI used in transportation is using deep learning
- AI has already been used in public transportation, we can use as a case study

RESULTS

- Use of AI to alter bus schedules and routes to adapt to traffic and weather
- Buses using self-driving technology to drive faster and safer
- Limited in effectiveness due to factors difficult to predict such as weather and car crashes (adaptation instead of avoidance).



CONCLUSIONS

Using AI to measure RTA times for students is a promising application of technology in the transportation sector. Implementing such a system could have several benefits, including reducing wait times at bus stops, improving the reliability of bus services, and ultimately enhancing the overall experience of students commuting to and from school. AI has the potential to revolutionize the way we manage transportation systems and improve the quality of life for students and commuters alike. By leveraging the power of technology and data, we can build more efficient and sustainable transportation networks that meet the evolving needs of modern society.

FUTURE WORK

AI is already being used to measure bus RTA times in many cities and transportation systems around the world, and it is likely that its use will continue to grow in the future. With advancements in technology and machine learning algorithms, AI can provide more accurate and reliable data on bus schedules and real-time traffic patterns. This can help transportation systems better predict arrival times and optimize bus routes, leading to more efficient and reliable transportation for students and other passengers.

References

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