

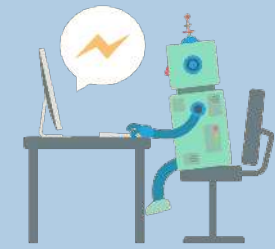


Trinity College  
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# Deep Learning for Dialogue Systems

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## Motivation & Significance

Reduce Cost

Creating profits

Deep Learning

Natural Language Processing

## Technology Tools



## Generative Pre-trained Transformer 2 (GPT-2 Model)



Vectors



Probabilities



Sentence

## Result

Not bad. I'm just staying at home all the time.  
Yichun Wang, 18 sec ago



Where do you live?  
Trinity\_Chatbot, 16 sec ago

I live in Massachusetts.  
Yichun Wang, 5 sec ago



that is awesome! i am in boston, but i'm in boston right now.  
Trinity\_Chatbot, 3 sec ago

## Conclusion

Fluent & Coherent  
Usable & Adaptable

## Future Reseach

Logic  
Variety of domains

## Acknowledgements

Special thanks to Prof. Spezialetti for the support and guidance in my project.

## Reference

1. Ashish Vaswani, Noam Shazeer, Niki Parmar, Jakob Uszkoreit, Llion Jones, Aidan N Gomez, Lukasz Kaiser, and Illia Polosukhin. 2017. Attention is all you need. In Advances in Neural Information Processing Systems, pages 6000–6010.
2. Ilya Sutskever, Oriol Vinyo, Quoc V. Le, Sequence to Sequence Lea