

From small talk to big conversations

The role of data in conversational AI

Small talk not your thing? We've got good news for you: Soon we'll all just be talking to machines

Conversational AI, made possible by natural language processing (NLP), is the branch of AI that's all about helping computers communicate with humans in their own language. (Because they're better at speaking human than we are at speaking binary.)

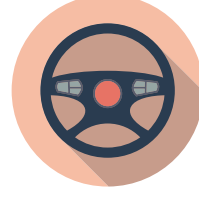
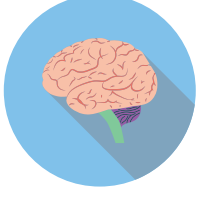
NLP is everywhere you'd expect—from smart assistants and chatbots to Google search and predictive text. It's also a lot of places you might not expect.

By 2022, 70% of people will be interacting with conversational AI platforms daily.¹



On Tinder

To up your dating game NLP can help analyze your messages to make you think twice about your opening line and help you spice up the conversation.^{2,3}



In the hospital To improve patient diagnosis

NLP is used to analyze speech patterns to detect brain injuries and illnesses, such as Alzheimer's and dementia.⁴

On the stock market To make big bucks

Financial sentiment analysis looks at social media to determine how people feel about recent news to predict whether a stock will rise or fall.⁵

On the road To get where you want to go

Self-driving vehicles use NLP to allow passengers to call and ask their vehicle to pick them up or to request emergency assistance.⁶

In law enforcement To counter terrorism

NLP is used to monitor and analyze social media conversations and to alert law enforcement officials when signs of terrorism are uncovered.

Easier said than done

For a high-quality conversation between a human and a machine, responses have to be rapid, intelligent, and natural sounding. Conversational AI has to feel easy. But the technology behind it is incredibly complex.

To do it well, you need:

- A ridiculous amount of data
- The ability to move that data across edge, core, and cloud
- The power to do it all at the speed of human thought

Go big or go home

Google Translate processes 140 billion words per day. That's the work of 70 million human translators. Every day.

Move it, move it

Thousands of edge devices gather terabytes of data each day. When access to this data is limited by a siloed infrastructure, deep learning only scratches the surface.

In the blink of an eye

NLP requires <300ms latency for real-time response. How fast is that? Very fast. [See if you can beat 300ms.](#)

NetApp delivers breakthroughs in NLP

NetApp unlocks the power of AI. Our solutions and services remove bottlenecks at the edge, core, and cloud to enable more efficient data collection, accelerated AI workloads, and smoother cloud integration so you can:



Focus on the science, not data management. Use an industry-leading open-source stack that makes deployment easy.



Go from data to insights, actions, and outcomes faster. Get more than 2GBps sustained throughout and under 1 millisecond latency at scale.



Move data where you need it and protect it wherever it lives with access to the AI industry's most complete native set of data protection and security features.

Discover how ITOCHU Techno-Solutions uses NetApp® ONTAP® AI to help drive natural language processing in the largest-scale AI verification environment in Japan.

[Learn more](#)



What's next? Conversations with woodland creatures?

We can't teach a squirrel to talk. We can teach you how to build the right AI infrastructure for NLP.

[Learn more about NetApp AI.](#)



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1 Forbes, Nice Chat-boting with You, May 2021.
2 Tinder Pressroom, Tinder Introduces Are You Sure?, an Industry-First Feature That Is Stopping Harassment Before It Starts, May 2021.
3 Lifewire, How AI Could Help You Find Love, January 2021.
4 Maruti Techlabs, Top 14 Use Cases of Natural Language Processing in Healthcare.
5 Avenga, 5 Natural Language Processing (NLP) Applications in Finance, February 2021.
6 Autonomous Vehicle, Natural Language Processing Enhances Autonomous Vehicles Experience, October 2019

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