COMPULSORY TASK 2

A great example of an innovative technology using NLP is "Amazon Comprehend".

Amazon Comprehend is an NLP service, operating within the AWS infrastructure. It uses machine learning to acquire valuable insights and find connections in text. It is primarily used for many NLP related tasks, such as Sentiment Analysis, Topic Modeling and Entity Recognition.

Amazon Comprehend allows users to retrieve valuable insights from a variety of sources, such as text in web articles, emails, customer service requests, social media feeds etc. Document processing is also made simpler by using Amazon Comprehend, as the automatic summarisation of text improves workflows by extracting key phrases, such as important topics, specific sentiment and more.

It's no surprise that technologies such as this are an invaluable asset to businesses. With something like Amazon Comprehend, businesses can train machine learning models to classify documents and identify terms without needing to have a dedicated team with experience in machine learning. Businesses can easily discover customer sentiment and also analyse their customer interactions to build a picture of how to improve their sales. And applying these tools to feedback that they receive from their customers (in surveys or satisfaction reviews) allows them to improve their products, which in turn will lead to an increase in their sales.

Amazon Comprehend is at its best when it is helping the user to acquire and simplify specific information, and this is particularly relevant where the documentation is convoluted and extended. Good examples of this would be legal documentation, or financial documents. Amazon Comprehend can extract insights from packets of legal briefings, such as contracts and court records, where a lot of jargon might get in the way of user comprehension. And with financial documents, entity recognition can be used to find patterns within a business's finances or find connections between separate financial events.

When it comes to security, the tools that Amazon Comprehend offers can also be used to protect and control who has access to any sensitive data a business might hold. Amazon Comprehend can identify and then redact Personally Identifiable Information (PII) from important documentation - a task that used to be very time-consuming for businesses.

There is also a specialised variant of this technology called "Amazon Comprehend Medical". For users who work in the healthcare sector, this variant allows them to use machine learning to carry out advanced analysis of a wide variety of medical data. This is extremely valuable for healthcare professionals, as it streamlines a somewhat laborious process of data analysis, and allows them to spend more time giving proper care to their patients.

Amazon Comprehend is a perfect example of what can be achieved with machine learning and NLP to accelerate many processes in data analysis, and ultimately, allow growing businesses to succeed at a much faster rate.