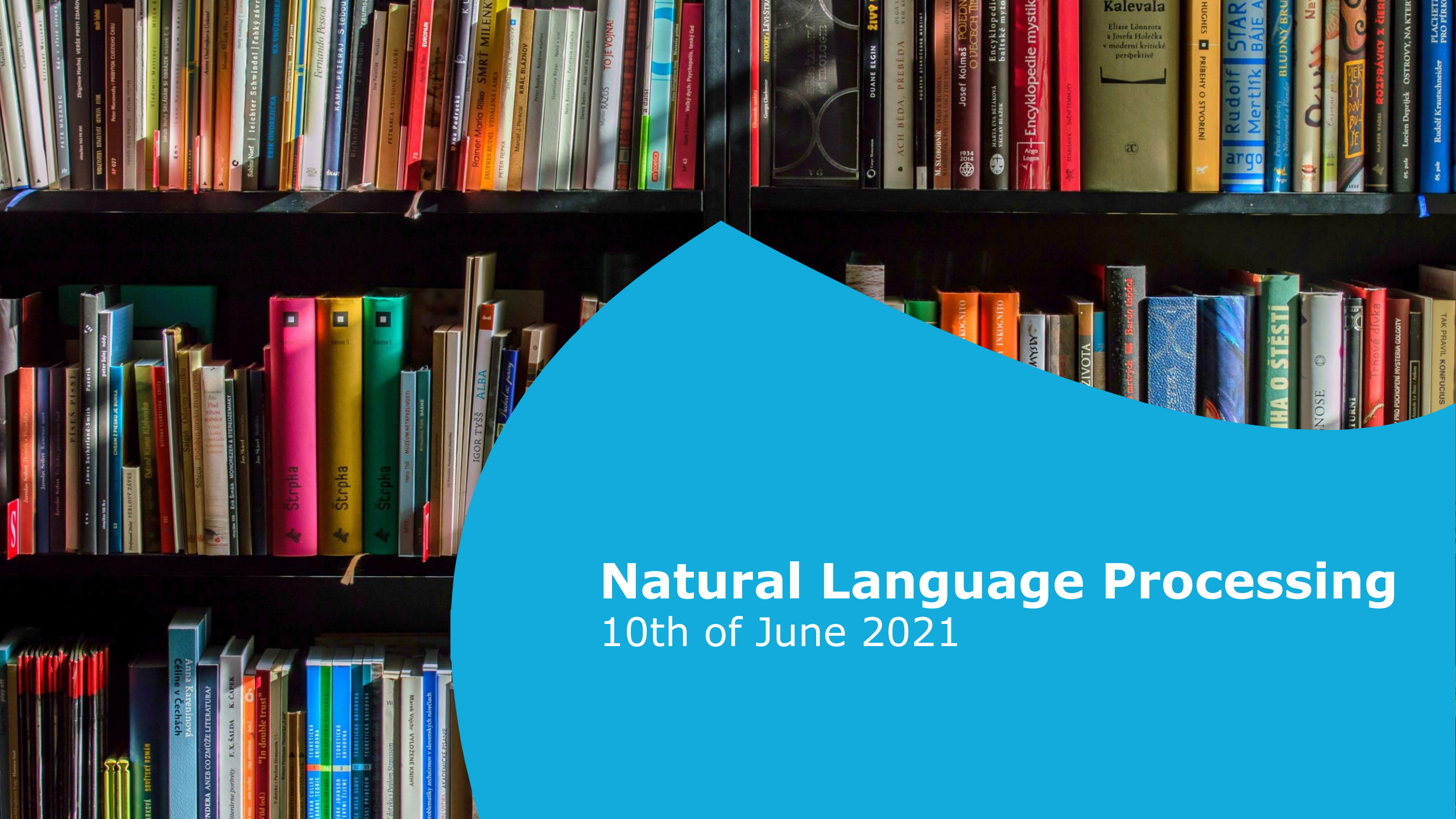
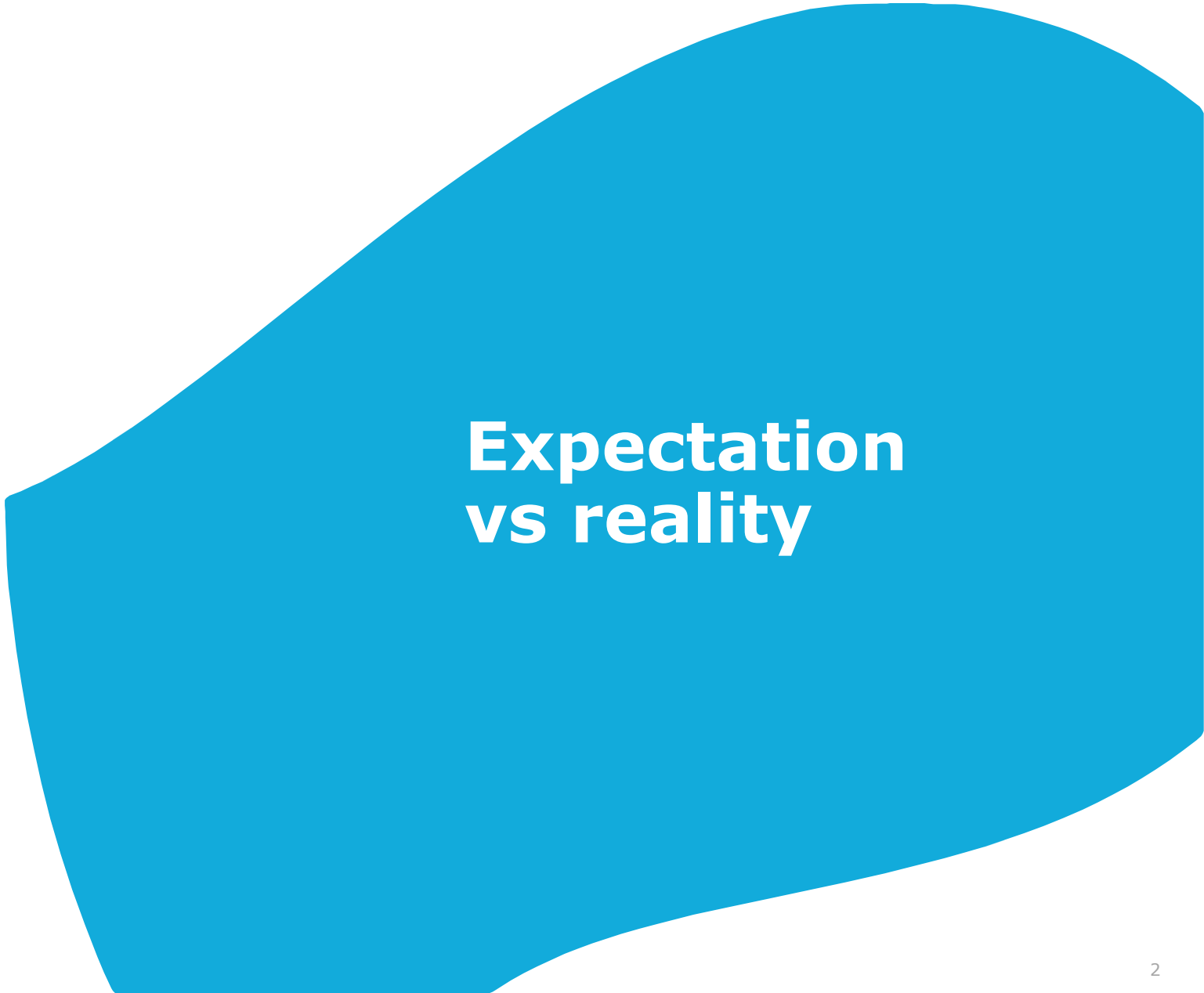




Natural Language Processing

10th of June 2021



Expectation vs reality

Expectation vs reality

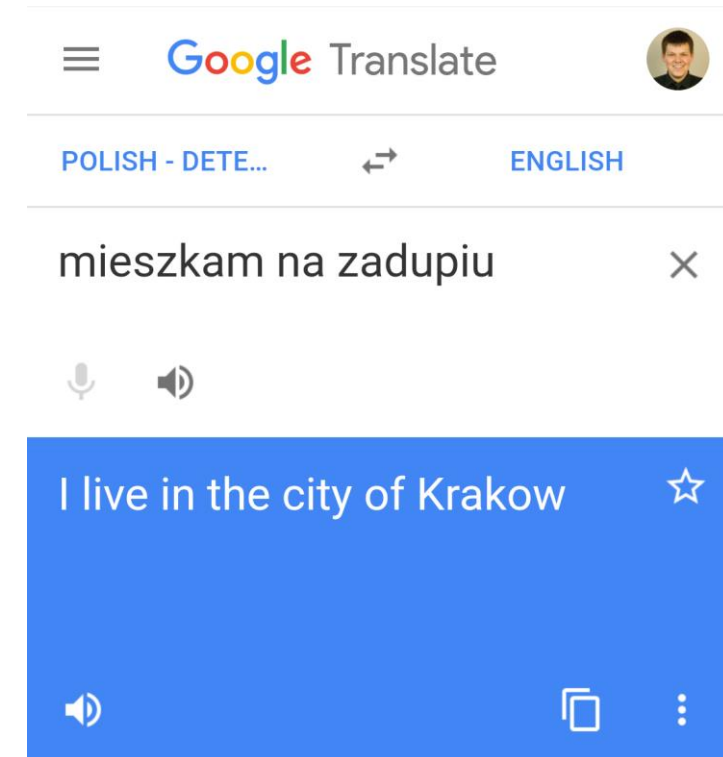


Expectation



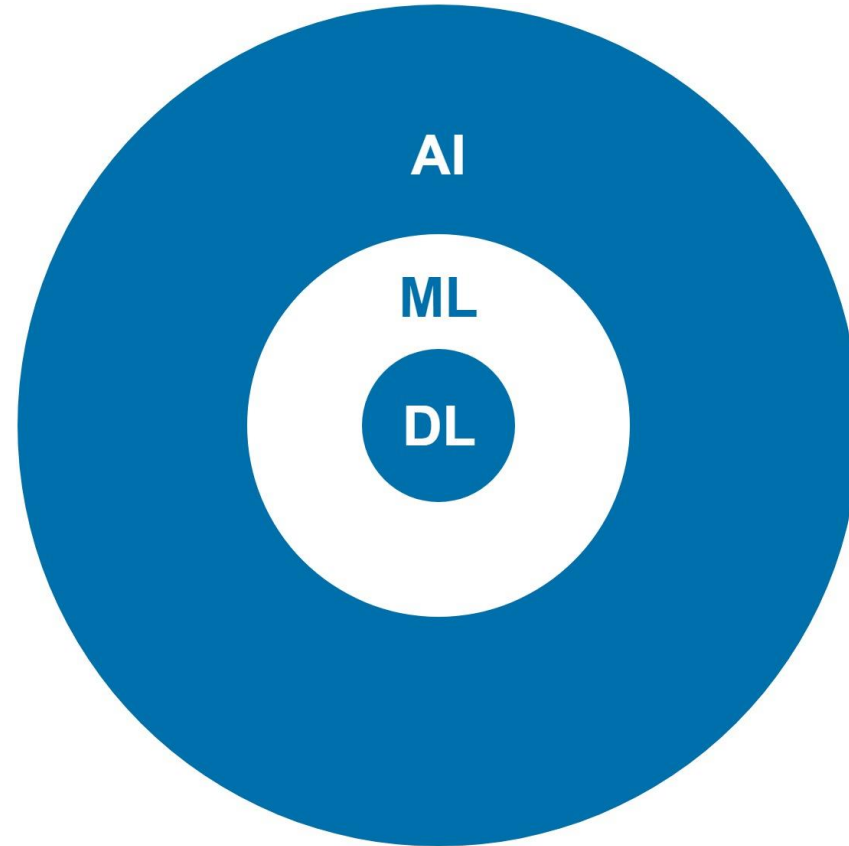
Source: bit.ly/3x30auh

Reality



Terminology

Artificial Intelligence vs Machine Learning





Artificial Intelligence vs Machine Learning

AI

Artificial Intelligence

Capability of a machine to imitate intelligent human behavior

ML

Machine Learning

Process used to achieve Artificial Intelligence

DL

Deep Learning

Algorithms that try to mimic the brain

Artificial Intelligence vs Machine Learning



Mat Velloso

@matvelloso



Difference between machine learning and AI:

If it is written in Python, it's probably machine learning

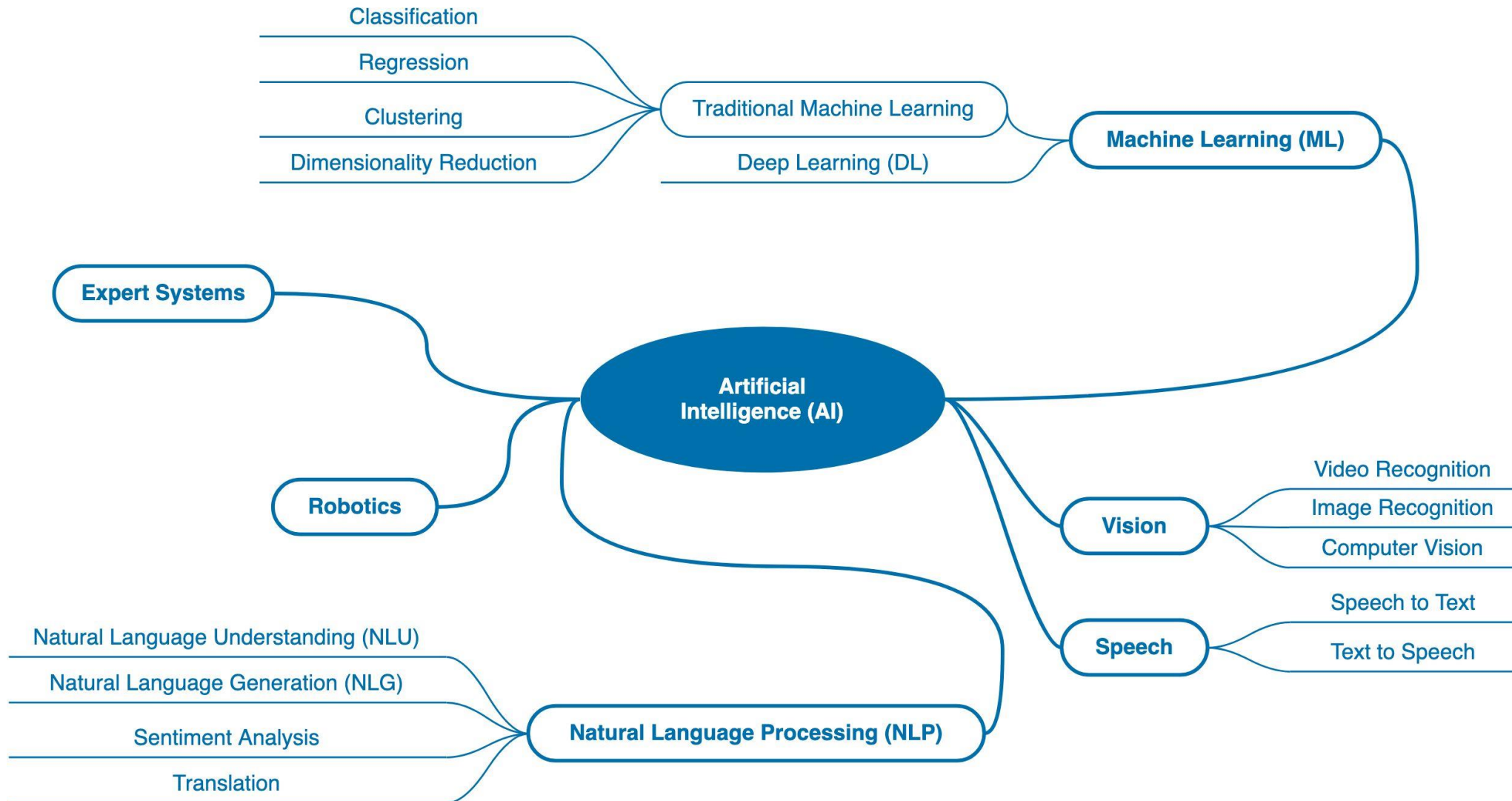
If it is written in PowerPoint, it's probably AI

♡ 23K 2:25 AM - Nov 23, 2018



💬 8,467 people are talking about this





Speech to Text

Speech to Text



Automatic conversion of speech into accurate, grammatically correct text.

Product: Amazon Transcribe

Use cases:

- Bot development
- Contact center
- Subtitles



Text to Speech



Text to Speech

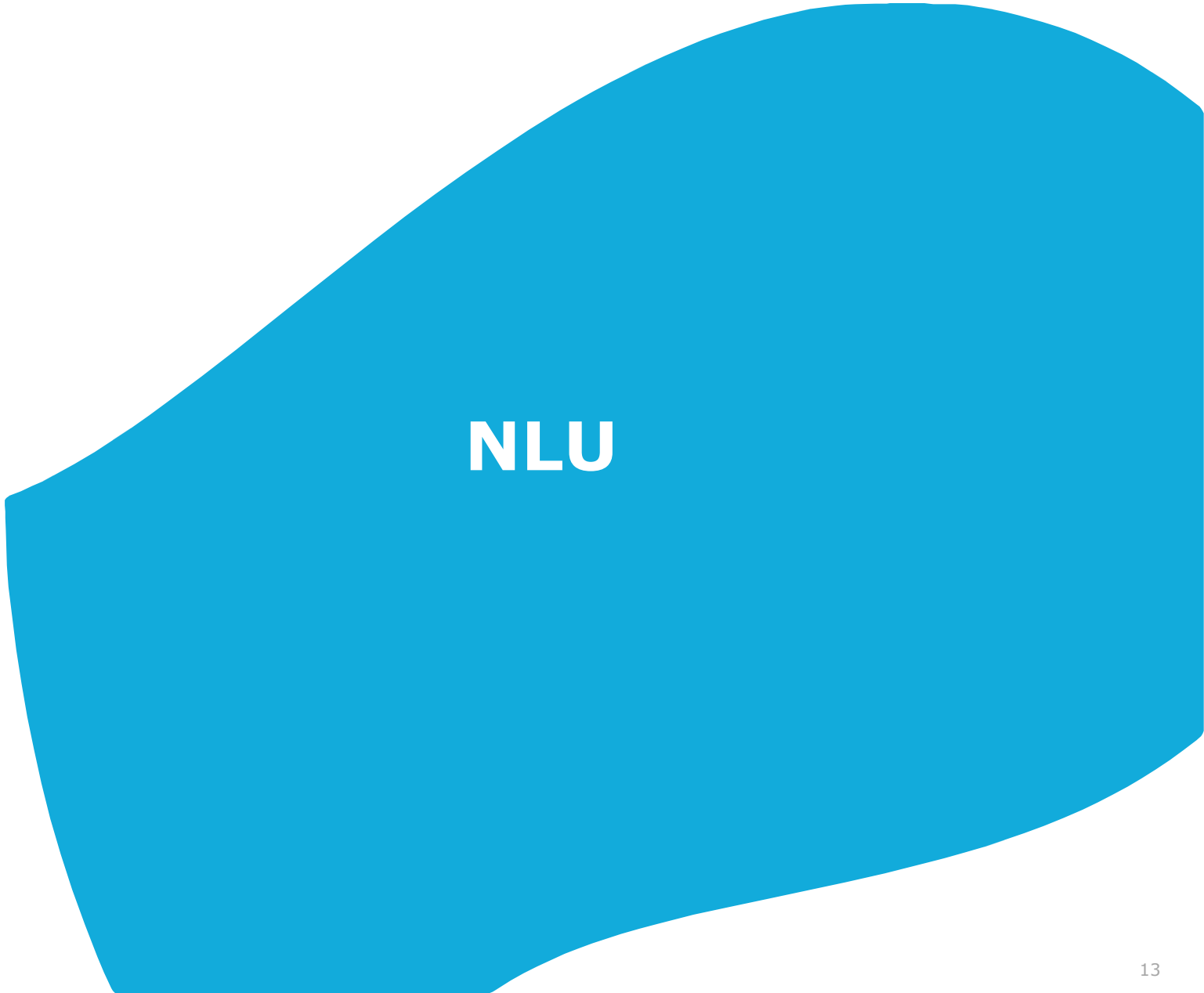
Automatic conversion of text into lifelike speech.

Product: Amazon Polly

Use cases:

- Bot development
- Contact center
- E-learning





NLU

Natural Language Understanding (NLU)



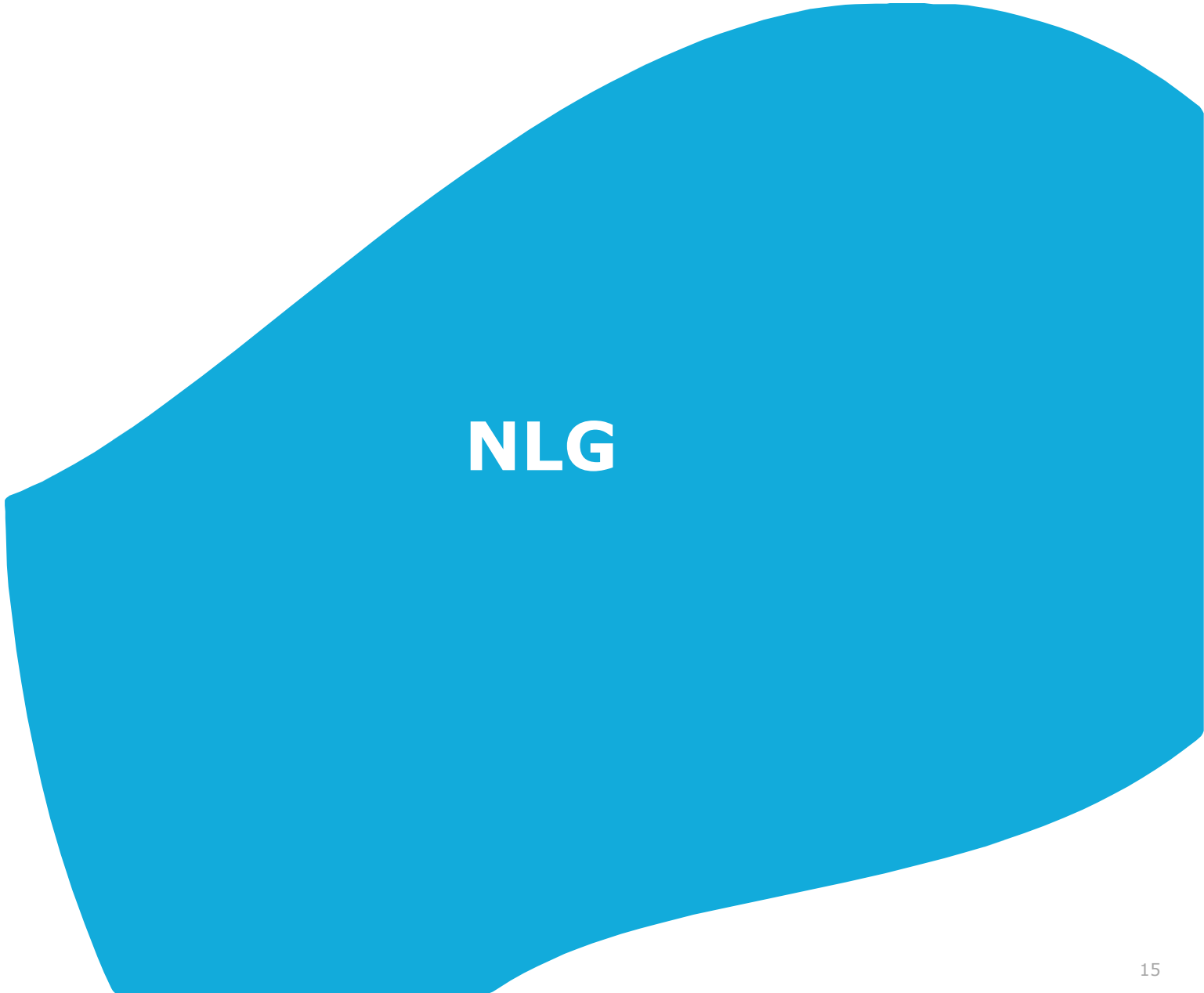
Conversational interfaces for text-based and voice-based applications.

Product: Amazon Lex

Use cases:

- Bot development
- Contact center
- Knowledge management





NLG



Natural Language Generation (NLG)

Automatic generation of text within seconds.

Product: AX Semantics NLG Cloud Editor

Use cases:

- Content automation
- Text summarization
- Google Smart Compose



Translation

Translation



Fluent and accurate language translation (aka neural machine translation).

Product: Amazon Translate

Use cases:

- Subtitles
- Knowledge management
- E-commerce





Sentiment Analysis

Sentiment Analysis



You can determine if the sentiment is positive, negative, neutral, or mixed.

Product: Amazon Comprehend

Use cases:

- E-commerce
- Service desk (ticket handling)
- Brand monitoring





We want more

Amazon Comprehend

×

- Real-time analysis
- Analysis jobs
- ▼ Customization
- Custom classification
- Custom entity recognition
- ▼ Amazon Comprehend Medical
- Real-time analysis
- Analysis jobs

Insights

Info

- Entities
- Key phrases
- Language
- PII
- Sentiment
- Syntax

Analyzed text

Hello Zhang Wei. Your AnyCompany Financial Services, LLC credit card account 1111-0000-1111-0000 has a minimum payment of \$24.53 that is due by July 31st. Based on your autopay settings, we will withdraw your payment on the due date from your bank account XXXXXX1111 with the routing number XXXXX0000.

Your latest statement was mailed to 100 Main Street, Anytown, WA 98121.
After your payment is received, you will receive a confirmation text message at 206-555-0100.
If you have questions about your bill, AnyCompany Customer Service is available by phone at 206-555-0199 or email at support@anycompany.com.

▼ Results

Q Search

< 1 2 > ⚙

Entity	Type	Confidence
Zhang Wei	Person	0.99+
AnyCompany Financial Services, LLC	Organization	0.99+
1111-0000-1111-0000	Other	0.87
\$24.53	Quantity	0.99+
July 31st	Date	0.99+
XXXXXX1111	Other	0.85
XXXXX0000	Other	0.83
100 Main Street, Anytown, WA 98121	Location	0.99+
206-555-0100	Other	0.99+
AnyCompany	Organization	0.97

► Application integration



AWS AI Service Demos

AWS pre-trained AI Services provide ready-made intelligence for your applications and workflows. Get started powering your applications in minutes: *no machine learning knowledge required.*

See them in action in the examples below, and check out the code samples on GitHub.

★ Star | 47

🔗 Fork | 32

Amazon Transcribe

Amazon Transcribe is an automatic speech recognition (ASR) service that makes it easy for developers to add speech-to-text capability to their applications.

[Try Transcribe](#)

[Docs](#)

Amazon Polly

Amazon Polly is a service that turns text into lifelike speech, allowing you to create applications that talk, and build entirely new categories of speech-enabled products.

[Try Polly](#)

[Docs](#)

Amazon Comprehend

Amazon Comprehend is a natural language processing (NLP) service that uses machine learning to find insights and relationships in text. No machine learning experience required.

[Try Comprehend](#)

[Docs](#)

Amazon Rekognition

Amazon Rekognition allows you to automatically identify objects, people, text, scenes, and activities, in images and videos. Available for batch and streaming.

[Try Rekognition](#)

[Docs](#)

Amazon Translate

Amazon Translate is a neural machine translation service that delivers fast, high-quality, and affordable language to language translation, with the ability to autodetect source language.

[Try Translate](#)

[Docs](#)

Made with ♥ by [Nicholas Walsh](#) and [Nicki Stone](#)

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Get the future you want.

Ruslan Korniiichuk

Lead IT Architect

Capgemini Poland

ruslan.korniichuk@capgemini.com

+48 791 065 877