

Transforming education with ChatGPT

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<https://github.com/iportilla/lowcode>

Agenda

Intros

What is ChatGPT

Use in Education

Demos

Key Takeaways

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Key Takeaways

What is ChatGPT?

- AI language model
- Generates human-like text responses
- Trained on large amounts of text data
- Understands & generates relevant responses
- Used in a conversational manner
- Engaging & interactive tool for students

Brief history of AI

Artificial Intelligence

Machine Learning

Deep Learning

Generative AI



Artificial Intelligence

Intelligence demonstrated by machines



Machine Learning

Learn from data



Deep Learning

Model after the human brain (Neural Networks)



Generative AI

Create new written, visual, and auditory content



*Ensure that artificial
general intelligence (AGI)
benefits humanity.*



*Empower every person and
organization on the planet
to achieve more*

GPT-3

Generate and Understand Text

Codex

Generate and Understand Code

DALL·E

Generate images from text prompts

Generative AI

GPT-3

Prompt:

Write a tagline for an ice cream shop.

Response:

We serve up smiles with every scoop!

Codex

Prompt:

Table customers, columns =
[CustomerId, FirstName,
LastName, Company, Address,
City, State, Country,
PostalCode]

Create a SQL query for all
customers in Texas named Jane
query =

Response:

```
SELECT *  
FROM customers  
WHERE State = 'TX' AND  
FirstName = 'Jane'
```

DALL·E

Prompt: A white Siamese cat

Response:



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Benefits of ChatGPT in Education

Enhanced
Student
Engagement

Personalized
Learning
Experience

Accessible &
Inclusive
Education

Encourage
Computational
Thinking

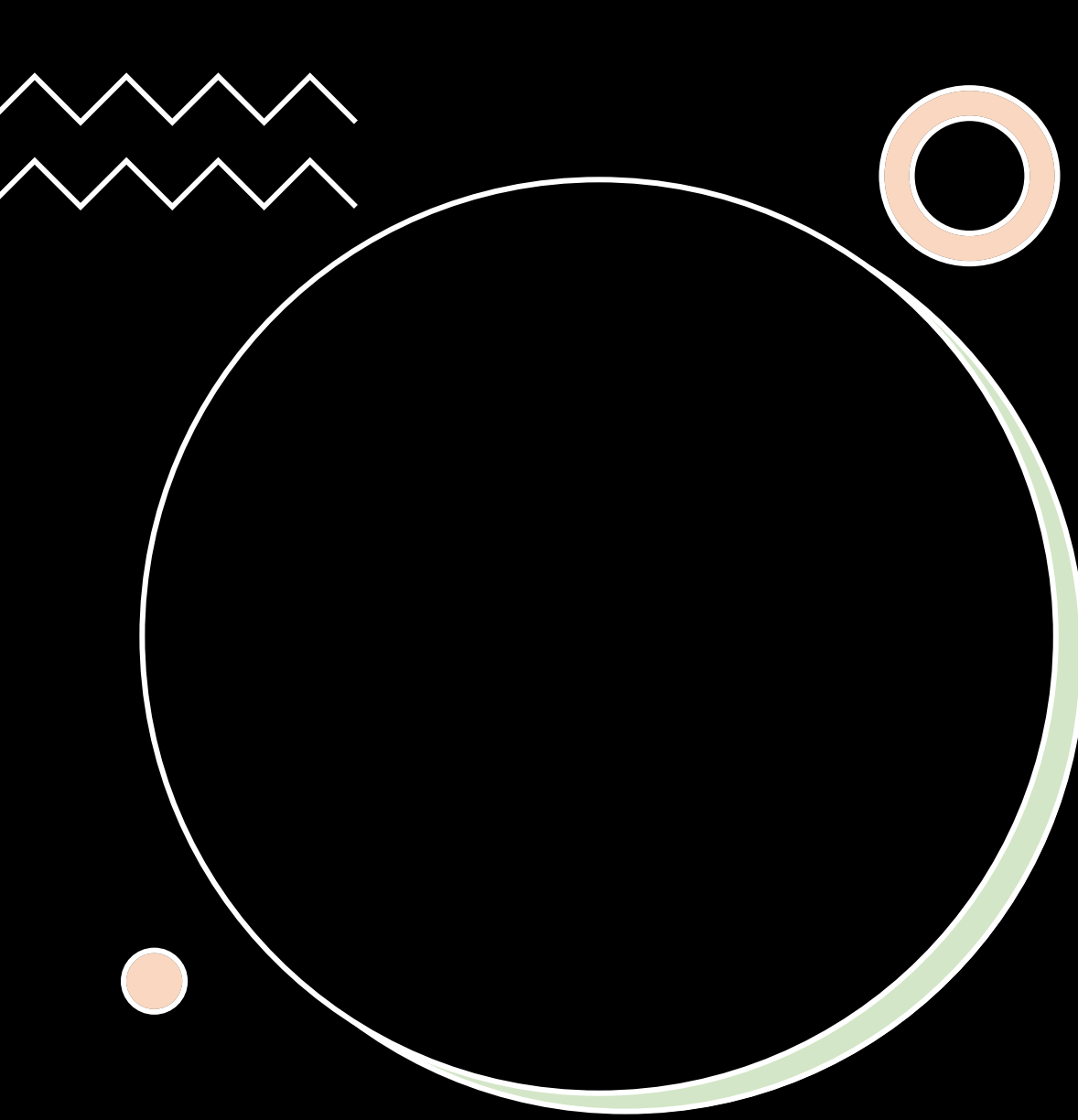

Potential Applications of ChatGPT in CS Classes

Interactive
Tutoring

Programming
Practice

Concept
Exploration

Project
Guidance

- 
- Potential to transform how students learn
 - Leverages the power of AI
 - Creates a personalized, interactive & inclusive learning environment
 - Embraces innovative tools(ChatGPT)
 - Unlocks students' full potential
 - Nurtures their passion for computer science
 - Prepares students for the digital future
- 

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Future of AI Example (Semantic Analysis)

The Wining Shot

The soccer game was nearly over. The two teams were tied, one to one.

Alice kicked the ball. Oops! She kicked it the wrong way.

"What a bad kick," Alice thought.

But wait!. Her teammate John jumped to stop the ball. The ball went off John into the goal!.

Alice's team won the game. Hooray! It was not a bad kick, after all.

Who won the game?

Why?

Future of AI Example

The Wining Shot

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Who won the game?

Answer: Alice's team

Correct

Explanation: Alice's team won the game because Alice's team had more points than the other team

✓ Correct

ChatGPT

JE

read this: The Wining Shot

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ChatGPT



who won the game



Alice's team won the game, even though Alice initially thought she had made a bad kick. John's quick thinking and intervention helped the team to score the winning goal, and they were able to secure victory in the game.



why?



Alice's team won the game because John was able to use his skills and reflexes to intercept the ball, even though Alice's kick was not aimed in the right direction. John's intervention caused the ball to go into the goal, which resulted in a score for Alice's team. Since this happened near the end of the game and there was no time left for the other team to catch up, Alice's team won the game with a score of 2-1.

Reason Over Unstructured Text

Question and Answering

On Monday, Microsoft launched an OpenAI service as part of its Azure cloud platform, offering businesses and start-ups the ability to incorporate models like ChatGPT into their own systems. The company has already been building AI tools into many of its consumer products, such as a DALL-E 2 feature in its Bing search engine that can create images based on a text prompt, and the Information reported recently that it's working to bring more of them to Microsoft Office as well.

What will Microsoft incorporate in its own systems?

Microsoft plans to incorporate AI tools into its own systems, such as a DALL-E 2 feature in its Bing search engine that can create images based on a text prompt, and the Information reported recently that it's working to bring more of them to Microsoft Office as well

Summarization

Extractive vs Abstractive

Extractive

Select parts of the original text to form a summary

- Easier
- Restrictive (no paraphrasing)

Peter and Elizabeth took a taxi to attend the night party in the city. While in the party, Elizabeth collapsed and was rushed to the hospital.

Peter and Elizabeth attend party city. Elizabeth rushed hospital



Abstractive (Semantic)

Generates new text using natural language generation techniques

- More difficult
- More flexible (more human)

Peter and Elizabeth took a taxi to attend the night party in the city. While in the party, Elizabeth collapsed and was rushed to the hospital.

Elizabeth was hospitalized after attending a party with Peter.



Abstractive Summarization

Contact Center Summarization

Summarize this for a call center agent:

Agent: Thank you for calling ADM. Who am I am speaking to?

Customer: Hello, my name is Jeremiah Contreras. I own a small business and have some questions regarding payroll processing.

Agent: Good morning, Jeremiah, before we get started may I ask you a few questions so that I better answer your questions today?

Customer: Thank you that is quite helpful. Are there specific regulations that I need to follow?

Agent: Certain aspects of payroll processing are regulated by the Internal Revenue Service (IRS) and the Department of Labor (DOL)

The agent is speaking to a customer named Jeremiah Contreras. Jeremiah is asking for tips on manual payroll processing. The agent also informs Jeremiah that certain aspects of payroll processing are regulated by the Internal Revenue Service (IRS) and the Department of Labor (DOL).

Prompt Insert

Only DaVinci-002+

Before

These are agenda topics for a customer presentation.

1. Introduction to GPT3

[insert]

10. Conclusion

After

These are agenda topics for a customer presentation.

1. Introduction to GPT3

2. Overview of GPT3 Features

3. Benefits of GPT3

4. GPT3 Use Cases

5. GPT3 Pricing

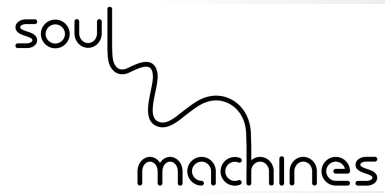
6. GPT3 Security

7. GPT3 Support

8. GPT3 Integration

9. Q&A Session

10. Conclusion



Soul Machines creates digital people that transform brand experience by creating engaging and emotional connections with customers.

Soul Machines is using OpenAI for sentiment to increase the empathy of their Digital People so that conversations with users are deeper and more meaningful.

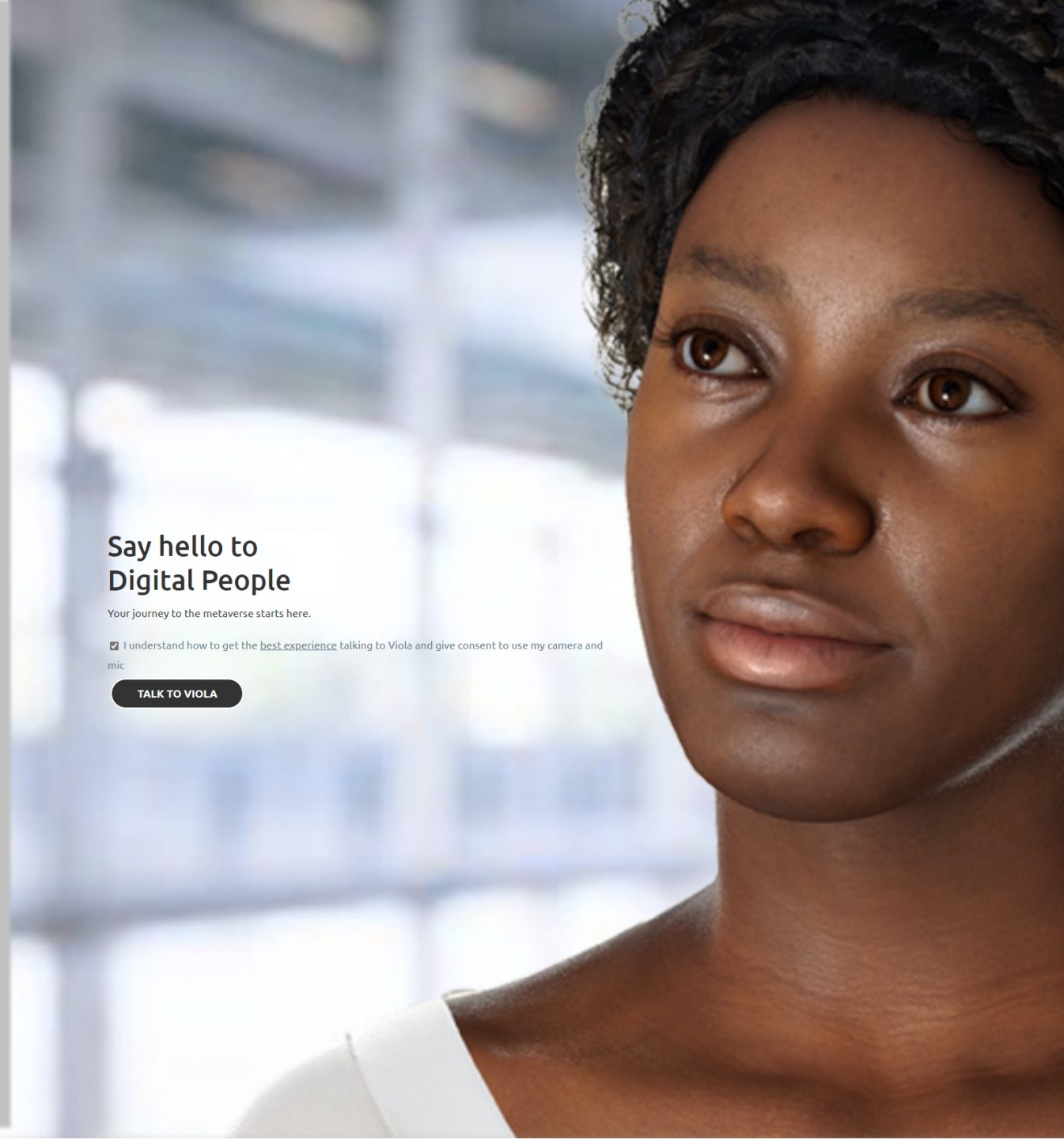
“Soul Machines is using Azure OpenAI Service for autonomous content generation for their media and entertainment products. For example, the content generation enables them to produce copy for conversations with their digital avatars and celebrities.”

Say hello to Digital People

Your journey to the metaverse starts here.

☒ I understand how to get the [best experience](#) talking to Viola and give consent to use my camera and mic

TALK TO VIOLA



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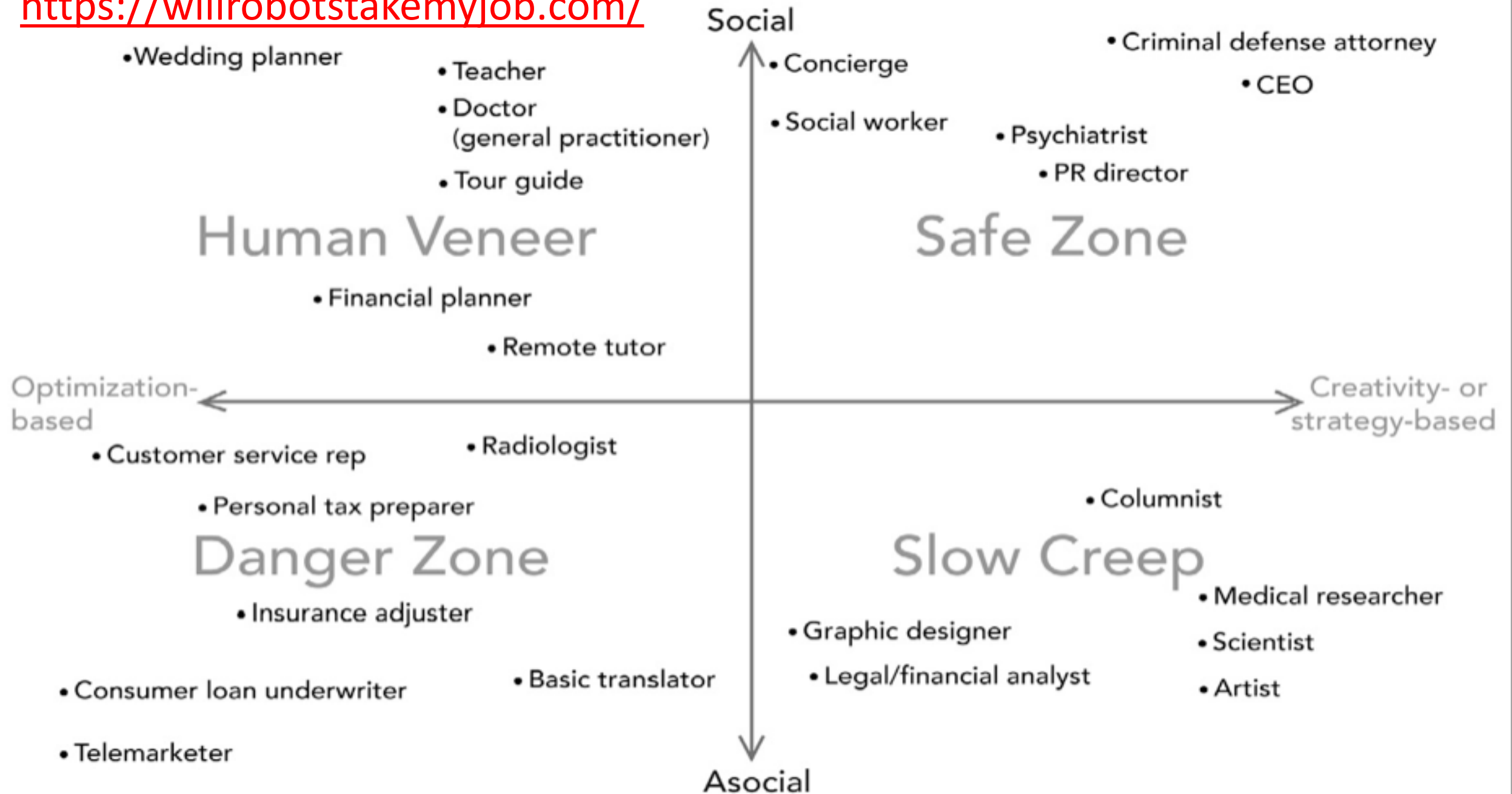
Demos

Key Takeaways

1.The purpose of AI is to augment human intelligence

2.Data and insights belong to their creator

3.AI systems must be transparent and explainable



Takeaways AI lecture

Citizen AI:

Develop critical thinking skills, have your voice heard

Big Data Advantage:

When giving away your personal data, choose wisely

Intelligent Automation:

Educate yourself on AI, thrive in your profession

Q&A

Thank You!



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