



# EdTech Challenge

Expecto Patronum

# WebApp Environment

Private Tutor

New Subject

EdTech

Add Subject

Select a subject to learn

OCR

OCR

EdTech

Choose your educational supplement

File Upload

Extract text from a file

Drag and drop file here

Limit 200MB per file • JPG, PNG, WAV, MP3, MP4, JPEG, MPEG4

Browse files

Menu

Lets learn OCR together!

Enter your command here

Deploy

Treat it like a normal Chatbot!

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Deploy

stays in the main focus

Lets learn EdTech together!

What is EdTech?

EdTech stands for Educational Technology. It refers to the use of technology to enhance teaching and learning processes. This includes the use of devices, software, and online resources to improve the delivery of educational content, personalize learning experiences, and assess student progress. EdTech aims to make education more accessible, engaging, and effective, fostering innovation and improving overall educational outcomes. It encompasses various tools and platforms, such as learning management systems (LMS), interactive simulations, adaptive learning tools, and educational apps.

Test Yourself with a Quiz!

Enter your command here

# We can perform the quiz at any time!

Private Tutor

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Test Yourself with a Quiz!

What does EdTech stand for?

☒ Educational Technology

☐ Enhanced Digital Teaching

☐ Electronic Device Training

☐ Educator Technology

Submit Answer

Enter your command here

→ Can take a quiz after each interaction..

## Private Tutor

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and platforms, such as learning management systems (LMS), interactive simulations, adaptive learning tools, and educational apps.



Generate a new multiple-choice question with 4 choices from our conversation as a quiz so I can test how much I learn. Only give a JSON without additional text, containing a "question", "choices", and the "correct\_answer" among those choices

Test Yourself with a Quiz!

What does EdTech stand for?

- ☒ Educational Technology
- ☐ Enhanced Digital Teaching
- ☐ Electronic Device Training
- ☐ Educator Technology

instant correction

Bravo, your answer is correct!

Submit Answer

Enter your command here



# We can evaluate your responses

No options to select. ▾

Choose your educational supplement

File Upload ▾

Extract text from a file

Drag and drop file here  
Limit 200MB per file • JPG, PNG, WAV, MP3, MP4, JPEG, MPEG4

Browse files

YouTube.mp3

0.5MB

×

Action on the extracted text

Explain ▾

Submit Action

Deploy ⋮

The ultimate goal is to create a valuable contribution to the field of educational technology through student-developed projects.

🤖

Generate a new multiple-choice question with 4 choices from our conversation as a quiz so I can test how much I learn. Only give a JSON without additional text, containing a "question", "choices", and the "correct\_answer" among those choices

Test Yourself with a Quiz!

What was a major criticism of the online master's program when it was first developed?

☐ It lacked interactive discussions.

☐ The courses were too difficult.

☒ The program was not accredited.

☐ It was too expensive.

You did not choose the correct answer!

Submit Answer

Enter your command here >

mind your mistakes.  
we will save them  
for you,  
to review later ♡ ♡

# You can upload images

Image-to-text models, also known as Optical Character Recognition (OCR) models, are algorithms designed to convert images containing text into machine-readable text. These models have seen significant advancements over the years, especially with the rise of deep learning techniques. Here are some notable image-to-text models:

1. **Tesseract:** Tesseract is one of the most well-known open-source OCR engines. Originally developed by Hewlett-Packard in the 1980s and later maintained by Google, Tesseract is widely used for its accuracy and language support.
2. **OCRopus:** OCRopus is another open-source OCR engine that utilizes deep learning techniques for improved accuracy. It is known for its ability to handle complex layouts and various fonts.
3. **Google Cloud Vision API:** Google Cloud Vision API offers OCR capabilities as part of its suite of image analysis tools. It supports various languages and provides accurate text extraction from images.
4. **Microsoft Azure Computer Vision:** Azure Computer Vision API, provided by Microsoft, offers OCR functionality along with other image analysis features. It can extract text from images and recognize handwriting.
5. **Amazon Textract:** Amazon Textract is a fully managed OCR service provided by Amazon Web Services. It can extract text and data from scanned documents, forms, and tables with high accuracy.

## Lets learn OCR together!



Explain this text for me so I can understand better: Image-to-text models, also known as Optical Character Recognition (OCR) models, are algorithms designed to convert images containing text into machine-readable text. These models have seen significant advancements over the years, especially with the rise of deep learning techniques. Here are some notable image-to-text models:

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2. **OCRopus:** OCRopus is another open-source OCR engine that utilizes deep learning techniques for improved accuracy. It is known for its ability to handle complex layouts and various fonts.
3. **Google Cloud Vision API:** Google Cloud Vision API offers OCR capabilities as part of its suite of image analysis tools. It supports various languages and provides accurate text extraction from images.

Enter your command here



OCR

Deploy

Choose your educational

File Upload

Extract text from a file

Drag and drop file here

Limit 200MB per file • JPG, PNG, WAV, MP3, MP4, JPEG, MPEG4

Browse files



img.jpg  
209.4KB



Action on the extracted text

Explain



Submit Action

Extracting  
information  
from pictures.

# Tutor's response: Explanation

OCR



Choose your educational supplement

File Upload



Extract text from a file

Drag and drop file here

Limit 200MB per file • JPG, PNG, WAV, MP3,  
MP4, JPEG, MPEG4

Browse files



img.jpg

209.4KB



Action on the extracted text

Explain



Submit Action

Deploy



## Key Concepts:

- **Image-to-Text Models (OCR Models):** Algorithms that convert images of text into digital, machine-readable text.

## Advancements:

- Deep learning has significantly improved the accuracy of these models.

## Notable Image-to-Text Models:

### 1. Tesseract:

- Open-source OCR engine widely used for its accuracy and language support.

### 2. OCRopus:

- Open-source OCR engine that uses deep learning for improved accuracy.
- Handles complex layouts and fonts well.

### 3. Google Cloud Vision API:

- Cloud-based OCR service that supports multiple languages and provides accurate text extraction.

Enter your command here





# You can upload videos locally...

No options to select. ▾

Choose your educational supplement

File Upload ▾

Extract text from a file

Drag and drop file here  
Limit 200MB per file • JPG, PNG, WAV, MP3, MP4, JPEG, MPEG4


Browse files

videofile.mp4  
3.6MB

Action on the extracted text

Expand ▾

Submit Action



Deploy ⋮

Expand this text for me by additional information from your knowledge. Organize the content and return the result: Nothing's ever given to you. Everything's gonna be alright. If you don't go out there and put in the work, you don't go out putting the effort, one, you're not gonna get the results, but two, more part of my, you don't deserve it.

Rule 1: Success Requires Effort

- Nothing in life comes easy. Achievements are earned through hard work and dedication.
- Without effort, goals remain unfulfilled, and aspirations become mere dreams.
- The amount of effort invested directly correlates to the level of success achieved.

Rule 2: The Power of Determination

- Difficulties and setbacks are inevitable in the pursuit of success.
- Determination enables one to persevere despite obstacles and maintain focus on the end goal.
- Those who lack determination are more likely to give up and fail to reach their potential.

Enter your command here >

upload your videos.

Tutor will give you more information based of each available topic.

# You can also use YouTube links

Add Subject

Select a subject to learn

No options to select. ▾

Choose your educational supplement

YouTube Link ▾

Enter YouTube Link

<https://youtu.be/WxYy9A20c54?si=OFrW>

Extract

Action on the extracted text

Summarize ▾

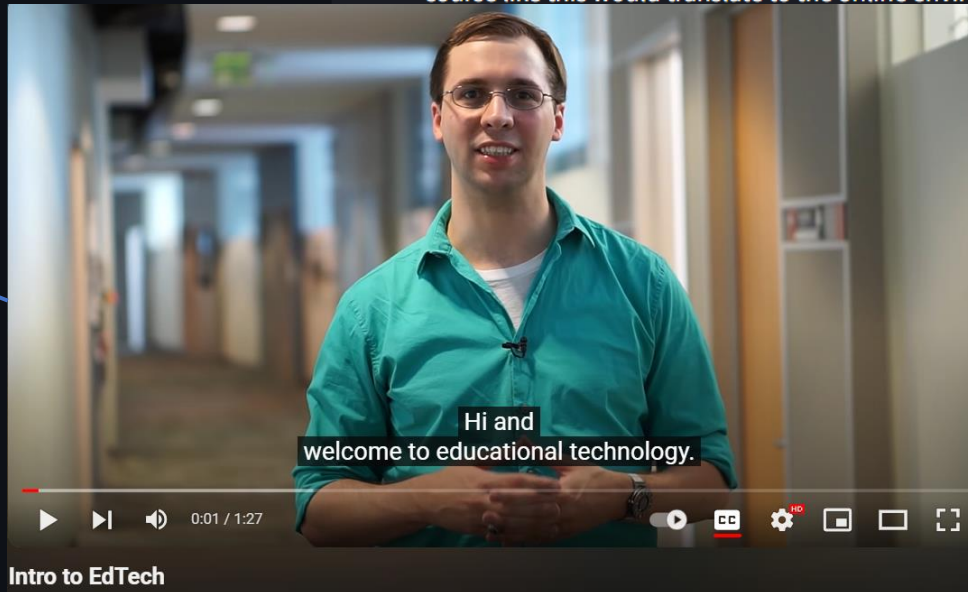
Submit Action

Found a YouTube  
tutorial?  
Send it to Tutor  
and Learn with  
more options



Summarize this text for me and highlight the key points: Hi, and welcome to Educational Technology. My name is David Joyner and I'm thrilled to bring you this course. When we started this program back in 2014, I would have wondered if a course like this was actually possible. Most of our online courses are built around their lectures, and while conversations and discussions do happen, they usually aren't foundational to the course. But when this course is taught on campus, there are no lectures. It's all discussions, conversations, activities, project presentations. There's nothing really that we can pre-prepare. So I would have wondered if a course like this would translate to the online environment. And in fact, that was one of the

m. People said that you can't have a real  
en teachers and students, but you can't  
if you could actually have an effective  
ually deliver our courses, and we found  
ussions online that were as good as we have  
The structure of the online interface gave  
own discussions, and students responded to  
So it's really because of y'all, but this class  
ke this in an online program. In this class,  
ner. We're going to try and build an entire  
sations and discussions without any pre-  
entive class around the project and really



Deploy

# Tutor's response: Summarization

Add Subject

Select a subject to learn

No options to select. ▼

Choose your educational supplement

YouTube Link ▼

Enter YouTube Link

<https://youtu.be/WxYy9A20c54?si=OFrW>

Extract

Action on the extracted text

Summarize ▼

Submit Action

Summarize the  
information so,  
you can recall or  
review the  
key point ...

prepared lecture material. We're going to build the entire class around the project and really try and build something that's a useful contribution to the educational technology field. We're looking forward to seeing what you come up with, and we're really excited to get started.



## Summary

The Educational Technology course, initially intended for on-campus teaching with discussions and activities, has successfully transitioned online. Contrary to skepticism, online discussions have proven to be equal or superior to in-person ones.

## Key Points

- Online courses with no pre-recorded lectures are possible and effective.
- Students play a significant role in guiding and proposing discussions online.
- Online discussions foster student ownership and engagement, enhancing class quality.
- The course emphasizes project-based learning and encourages students to make meaningful contributions to the field.

Test Yourself with a Quiz!

Enter your command here



Deploy ⋮

# Upload Audio

No options to select. ▾

Choose your educational supplement

File Upload ▾

Extract text from a file

Drag and drop file here

Limit 200MB per file • JPG, PNG, WAV, MP3,  
MP4, JPEG, MPEG4

Browse files



YouTube.mp3

0.5MB



Action on the extracted text

Explain ▾

Submit Action

Deploy ⋮



Explain this text for me so I can understand better: Hi, and welcome to Educational Technology. My name is David Joyner and I'm thrilled to bring you this course. When we started this program back in 2014, I would have wondered if a course like this was actually possible. Most of our online courses are built around their lectures, and while conversations and discussions do happen, they usually aren't foundational to the course. But when this course is taught on campus, there are no lectures. It's all discussions, conversations, activities, project presentations. There's nothing really that we can pre-prepare. So I would have wondered if a course like this would translate to the online environment. And in fact, that was one of the main criticisms that some people had of this program. People said that you can't have a real master's program without a lot of interaction between teachers and students, but you can't have that interaction online. And so they wondered if you could actually have an effective online master's program. But then we started to actually deliver our courses, and we found something interesting. Not only could we have discussions online that were as good as we have in person, but oftentimes they were actually better. The structure of the online interface gave students a lot of power to propose and guide their own discussions, and students responded to that ownership by really making the classes better. So it's really because of y'all, but this class is here. Y'all showed us that we could have a class like this in an online program. In this class, we're going to try and push that envelope even further. We're going to try and build an entire class around those kinds of interactions and conversations and discussions without any pre-prepared lecture material. We're going to build the entire class around the project and really

Enter your command here



# Tutor's response: Explanation

No options to select. ▾

Choose your educational supplement


File Upload ▾

Extract text from a file

Drag and drop file here

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Browse files

 YouTube.mp3

0.5MB


×

Action on the extracted text

Explain ▾

Submit Action

Deploy ⋮

 **Summary:**

David Joyner explains the unique nature of his educational technology course, which is structured around discussions, conversations, and project presentations rather than traditional lectures.

**Key Points:**

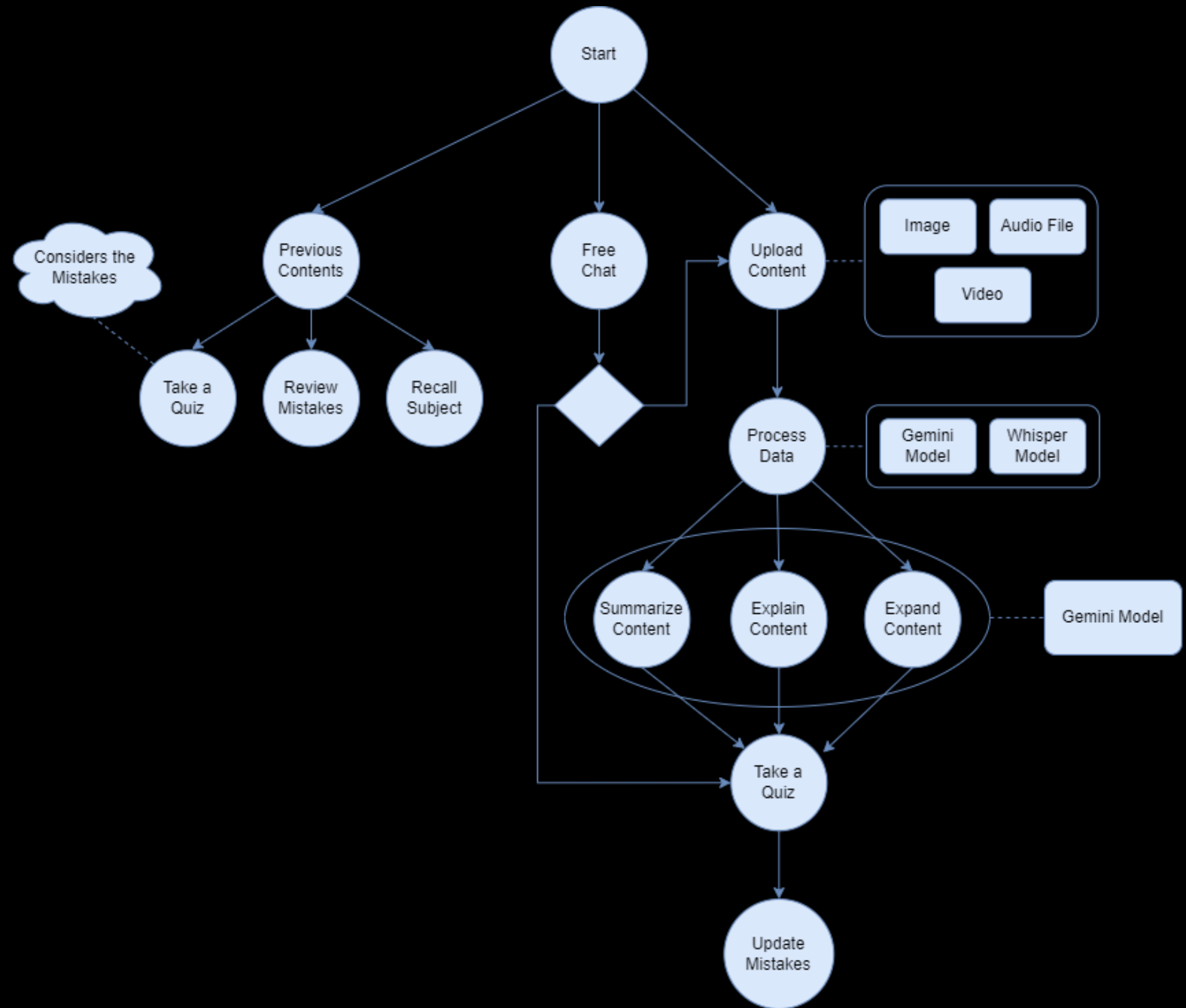
- In 2014, many questioned the feasibility of such a course being offered online without lectures.
- However, as the course was delivered online, it became clear that discussions were not only possible but often improved.
- The online environment empowered students to direct their own discussions, leading to richer and more meaningful engagement.
- The course is designed to push the boundaries of online learning by relying solely on student-led interactions and conversations.
- The ultimate goal is to create a valuable contribution to the field of educational technology through student-developed projects.

Test Yourself with a Quiz!

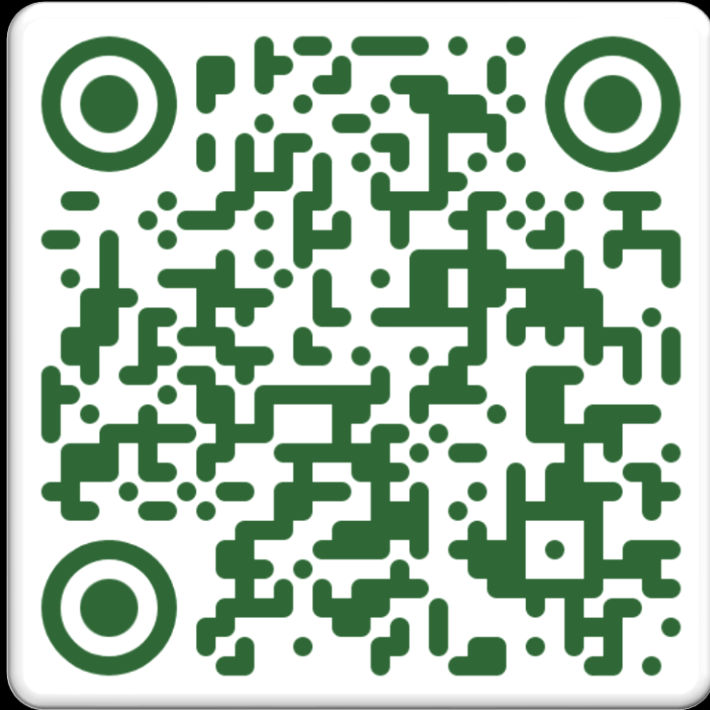
Enter your command here >

Or command for more explanation on the topic

- Block Diagram

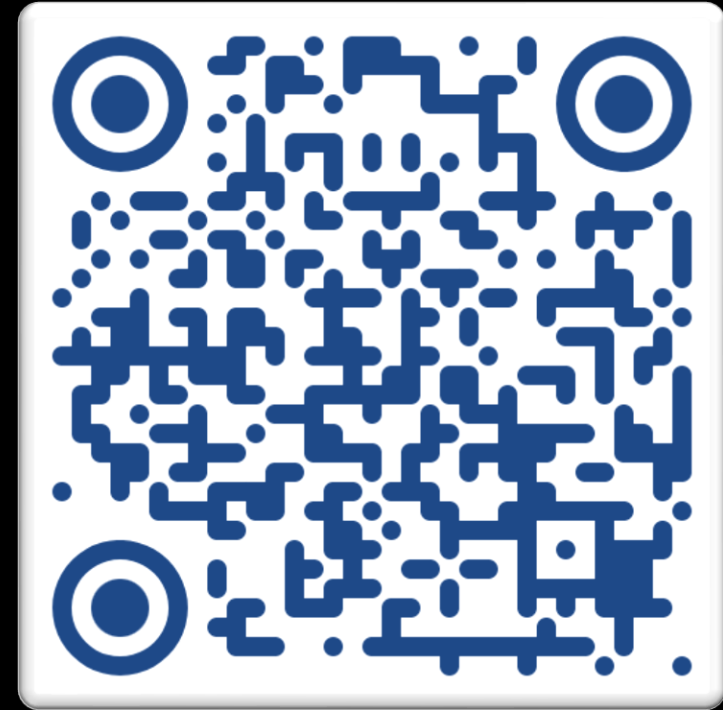


## GitHub Repository



<https://edtech-llm.streamlit.app/>

## Web Application Live Demo



<https://github.com/tabaraei/edtech>





Thank You for  
Your Attention

Expecto PatroNull