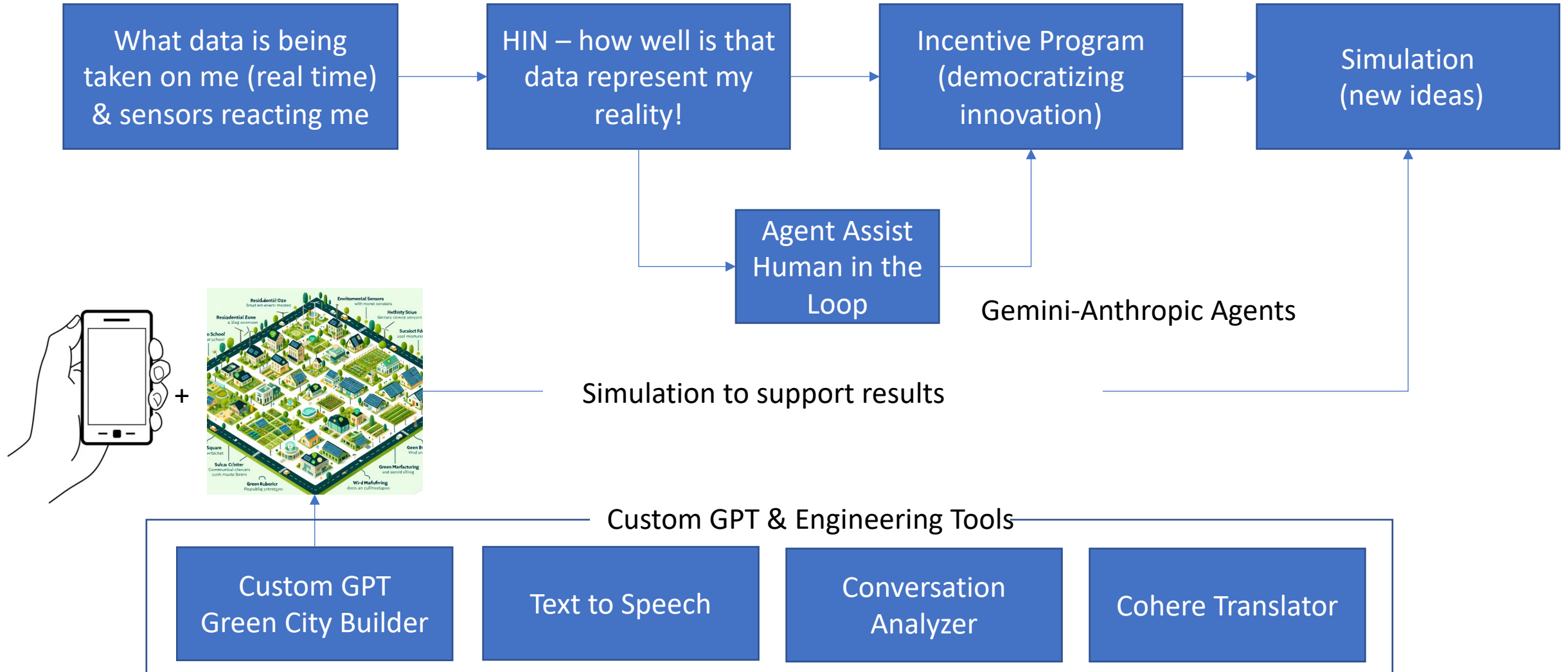RAGE

RAGE – Retrieval Agent Generative Experience (Human in the Loop)

Wherever you are in the grid!

HIN = Human Interpretive Number
= Groundedness x Hallucination

| What data is being taken on me (real time) & sensors reacting me | → | HIN – how well is that data represent my reality! | → | Incentive Program (democratizing innovation) | → | Simulation (new ideas) |

Agent Assist Human in the Loop

Gemini-Anthropic Agents

 +

Simulation to support results

Custom GPT & Engineering Tools

| Custom GPT Green City Builder | Text to Speech | Conversation Analyzer | Cohere Translator |

A day in the Life of Aya Green Data City

Aya Green Data City

Welcome to RAGE. A day in the life of Aya Green Data City.

Introduction

On his first day at Quantum Data Institute in Green Open Data City, Elian marveled at the city's harmonious blend of technology and nature in the morning glimmer. Guided to his mentor, Dr. Maya Lior, a pioneer in urban data ecosystems, their discussion quickly centered on Aya's innovative design. Dr. Lior explained data analytics and green technologies were intricately woven into the city's infrastructure, and how they used a Custom GPT called Green Data City to create the design.

To interact with the Custon GPT Green Data City design tool click the button below. Additionally, to see how it was built toggle the Explanation of Custom GPT "Create Green Data City" button.

Choose a voice:

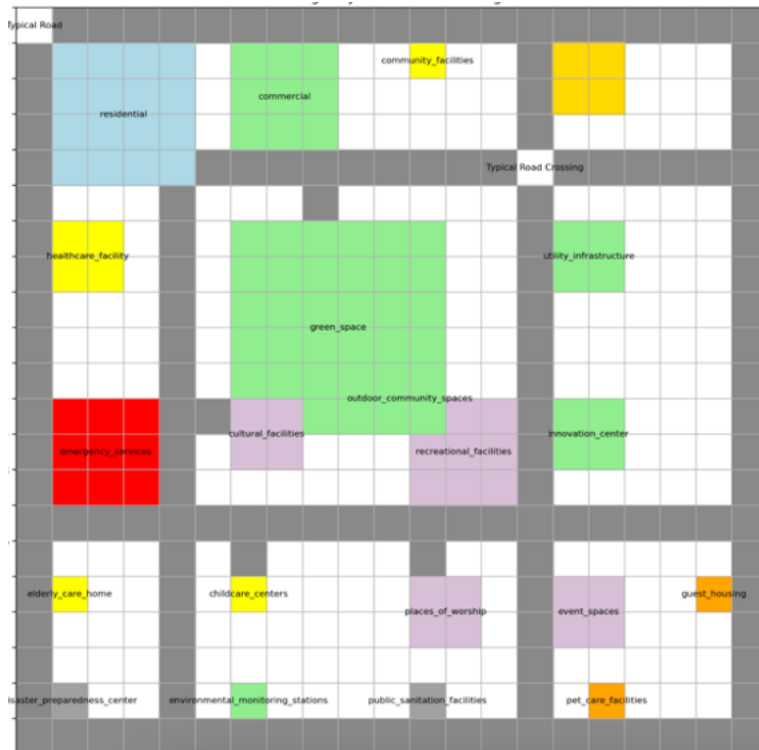| alloy	⌄

Convert to Speech

Custom GPT Engineering Tools

Custom GPT Green Data City Creation Tool (Population 10,000 to 50,000)

Show/Hide Explanation of "Custom GPT Create Green Data City"

Show/Hide Green Data City

Create a Green Data City ⌄

Custom GPT

Create a Green Data City

By Michael L Lively 👤

Create the JSON file for a Green Data Village.

Becoming a Global Citizen

Cultural Center Cohere Translator

Global Citizen

Elian and Dr. Maya Lior's journey to the Cultural Center, a beacon of sustainability and technological integration. Equipped with cutting-edge environmental monitoring sensors, occupancy detectors, and smart lighting systems, the center is a hub for innovation in resource management and climate action. There, they were greeted by Mohammad, a dedicated environmental scientist who, despite the language barrier, shared their passion for creating a sustainable future. Utilizing the Cohere translator, they engaged in a profound dialogue, seamlessly bridging the gap between languages. Their conversation, rich with ideas and insights on global citizenship and collaborative efforts to tackle climate change and resource scarcity, underscored the imperative of unity and innovation in facing the challenges of our time. This meeting, a melting pot of cultures and disciplines, symbolized the global commitment required to sustain our planet.

As Elian is using the Cohere translator, he wonders how to best utilize it efficiently. He studies a Custom GPT called Conversation Analyzer. It translates a small portion of the message you're sending so you can be comfortable that the essence of what you are saying is being sent and aids in learning the language. Its mantra is "language is not taught but caught." To try out the Custom GPT Conversation Analyzer, click the button below. Additionally, to see how it was built, toggle the Explanation of Custom GPT "Conversation Analyzer" button.

Choose a voice:

| alloy | ⌄ |

Convert to Speech

Cohere Translator

Enter your text

 Hi Mohammed, it is nice to meet you. Let's discuss how to be better friends and tackle the world's issues such as global warming and climate change together. There are already so many technology solutions in this grand city that can be applied to the world. I am glad to be working on this problem with you.

مرحباً Mohammed، دعونا نتحدث عن كيفية أن نكون أصدقاء أفضل ونقوم بمعالجة قضايا العالم مثل الاحتباس الحراري وتغير المناخ معاً. هناك العديد من الحلول التكنولوجية في هذه المدينة الكبيرة التي يمكن تطبيقها على العالم. أنا سعيد للعمل على هذه المشكلة معك.

Cohere Translator

Enter your text

Hi Mohammed, it is nice to meet you. Let's discuss how to be better friends and tackle the world's issues such as global warming and climate change together. There are already so many technology solutions in this grand city that can be applied to the world. I am glad to be working on this problem with you.

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Source language

English	⌄

Target language

Arabic	⌄

Translate

Custom GPT Engineering Tools

Conversation Analyzer

Show/Hide Explanation of "Conversation Analyzer"

Conversation Analyzer ˅

Custom GPT

Conversation Analyzer

By Michael L Lively 👤

Highlights key words in text used to convey meaning and provides infographics for foreign language translation.

City Layout and Sensors

City Layout & Sensor Graph

Sensor Insentive Program

Incentive Program

Elian and Mohammad transition from their meeting with Dr. Lior to explore the Innovation Center, a nexus of high-speed internet, energy monitoring, and smart security. Mohammad showcases a digital map titled "Create a Green Data City," accessible to all for enhancing sustainability through a citizen-incentivized program. This map allows users to select locations, revealing graphs of active sensors and collected data, ensuring transparency and promoting an informed, engaged community. This feature not only cultivates trust but also encourages participation in optimizing the city's sensor network, addressing the exponential challenge of data management. Through this collaborative venture, the city embodies a sustainable future, marrying technology with collective action and environmental stewardship in a single, cohesive narrative.

I use it all the time Mohammad says, I even bought my breakfast this morning from the free meal incentive.
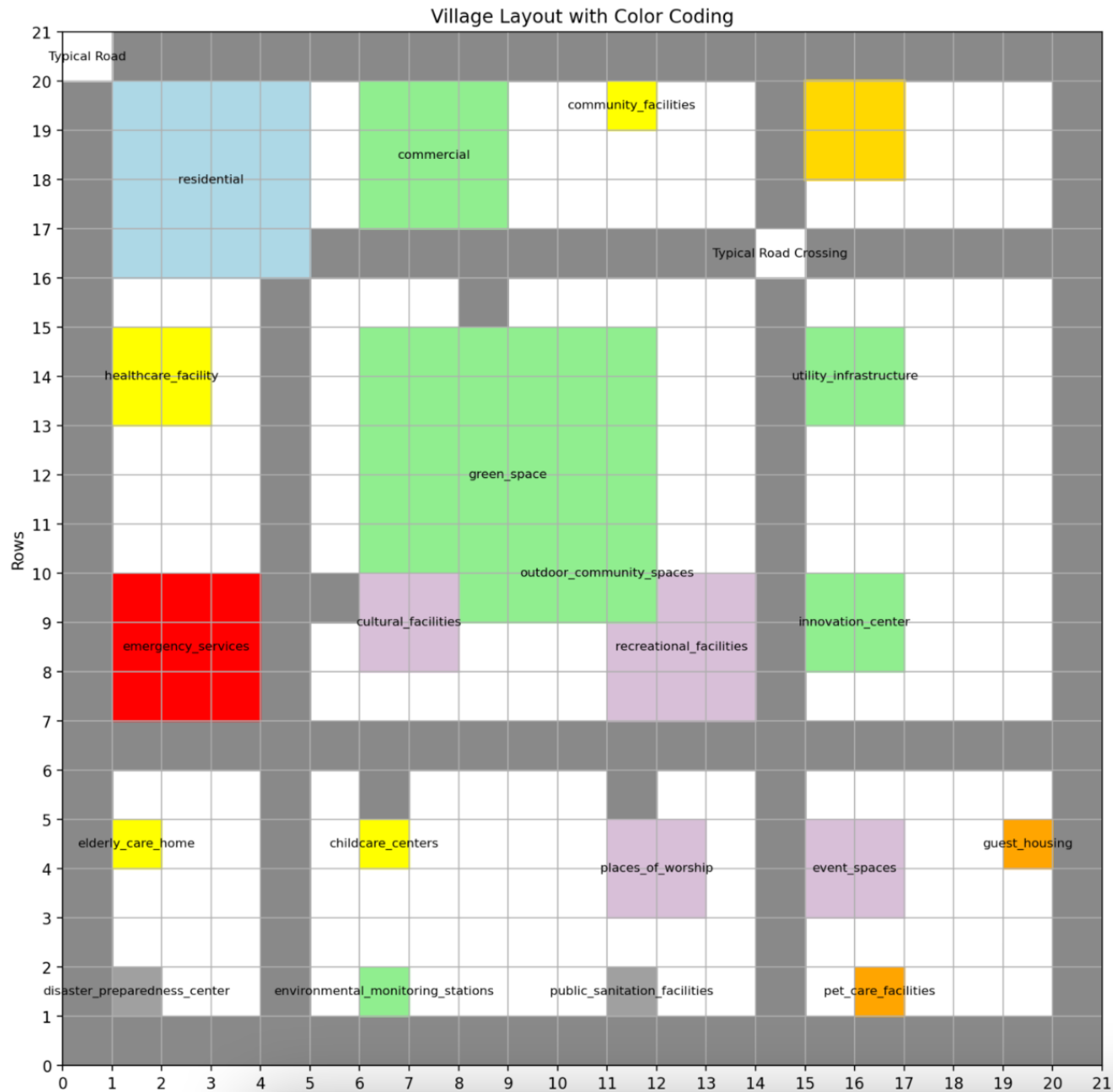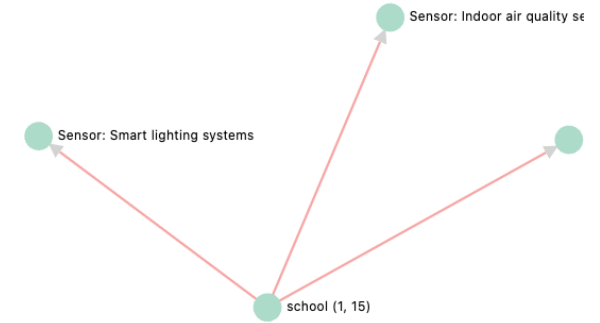
Choose a voice:

alloy   ⌄

Convert to Speech

Select a building to highlight:

school at (1, 15) ⌄

Village Layout with Color Coding

City Layout and Sensors

Gemini-Anthropic Agent Analysis

Gemini-Anthropic Agents

Green Space

Using Agents

Mohammad and Elian, after walking to the technologically equipped Green Space for a light lunch, delve into discussions about the innovative incentive program. Mohammad, brimming with knowledge, introduces the concept of optimizing a unique metric known as the HIN number, facilitated by Antropic and Gemini agents from the Aya data system.

This number reflects the balance between the realism of sensor data (groundedness) and the accuracy of AI predictions (hallucination), crucial for ensuring effective environmental monitoring and resource management. A low HIN indicates either sparse sensor data or misaligned AI predictions, impacting the system's reliability. Mohammad suggests using these agents to fine-tune the Green Space's lighting and assess the need for additional sensors, aiming to achieve an optimal balance that enhances the project's accuracy and effectiveness.

Choose a voice:

alloy	⌄

Convert to Speech

Topic Input (Example: Checking 4 sensors on follow me trail and 2 are flickering one is acting correctly and the fourth one just stays on. Also, the air smells stale and the pond is over flowing.)

Enter Discussion Topic...

Gemini-Anthropic Agent Analysis

Green Space

Convert to Speech

Topic Input (Example: Checking 4 sensors on follow me trail and 2 are flickering one is acting correctly and the fourth one just stays on. Also, the air smells stale and the pond is over flowing.)

Enter Discussion Topic...

Run Analysis

Sample Resutls

For Green Space: Checking 4 sensors on follow me trail and 2 are flickering one is acting correctly and the fourth one just stays on. Also, the air smells stale and the pond is over flowing.

HIN score: 0.4
Groundedness score: 0.5 (2/4 sensors are working correctly)
Hallucination score: 0.8 (1/2 sensors are working correctly)
Suggestions on how to fix sensors and what new sensors need to be added:
- Fix the flickering sensors by checking the power supply, wiring, cleaning the sensor, checking the ground connection, adjusting the sensitivity, checking for interference, and replacing the sensor
- Fix the overflowing sensor by checking the exposure to excessive stimuli, electrical interference, damage or degradation, incorrect calibration, unsuitable environmental conditions, incorrect wiri
- Fix the sensor that stays on constantly by checking the wiring, cleaning the sensor, adjusting the sensitivity, checking for obstructions, replacing the sensor, and checking the control panel.
- Consider adding a sensor to measure air quality to address the stale air issue.
- Consider adding a water level sensor to monitor the pond and prevent overflow.

Introduction   Global Citizen   Incentive Program   Agent Help   Residential

Residential

Residential Living - a four-story residential building within the Green Smart Village, illustrating the smart features like smart meters, water flow sensors, and temperature & humidity sensors, alongside the eco-friendly design and technology-enhanced living experience.

End of the Day

After an afternoon spent meticulously correcting sensors in Green Data City, Mohammad and Elian retreated to the residential quarters, their camaraderie solidified over a day's hard work. As the sun set on the eco-friendly horizon, they shared a well-deserved meal, their laughter mingling with plans for the future. This encounter marked the beginning of a fast friendship, with Elian looking forward to learning from Mohammad, not only about the advanced technologies that made their city a marvel but also about the spirit of innovation and teamwork that thrived within its boundaries. In the comfort of their newfound friendship, Elian felt a deep sense of belonging and anticipation for the days ahead, ready to dive deeper into the wonders of Green Data City alongside his mentor and friend.

Many thanks to our Team which made this project possible

Nujam Azeem

Alma Nizar

Muhammad Javed Akter

Razia Ishaq

Muhammad Asad Ishfaq

Also thanks to Nasser Mooman who provided invaluable technical support for the project.

Michael Lively Team Leader

Choose a voice:

| alloy | ⌄ |

Convert to Speech