Unit 11: Online (Dis)Information

Smart Chats: The Rise of Talking Tech

Keywords				
aware	contribution	debate	define	editor
legal	property	shift	survey	user

My brother, Willy, has a parrot named Rocky. A parrot is a bird that is good at copying sounds. Rocky is really good at copying what people say. He listens to everyone talking in Willy's house and can repeat the words just like them. When he hears someone say, "I want something to eat," he often says, "Give me an apple!"

Rocky says "apple," "banana," or "some other food" a lot because he hears these words more than words like "hotel" or "**property**." Rocky doesn't really understand what "apple" or "banana" means as people do. He's just good at guessing what to say next based on what he's heard before. We can call Rocky a "stochastic parrot." "Stochastic" is a big word that we can **define** as something that uses chance or randomness. Rocky the parrot is really good at guessing what people will say next. He's a bit like a computer program called a language model.

These special computer programs are like smart parrots for computers. They can guess what words might come next in a sentence. To do this, they use something called neural networks. Think of neural networks as a big, big web of small connections, all working together to help the computer think. Just like Rocky listens and learns from what people say in Willy's house, a language model learns from lots of things that are written down. For example, it might read lots of articles about movies on a website like Wikipedia. It learns about different movie stories, actors, and even what people say about movies. After reading so much, the language model gets really good at guessing what might come next in sentences about movies. For instance, if you start a sentence like, "In the movie, the big green giant...", the language model might guess you're going to talk about the giant's adventures or his friends because it has read lots of stories about giants in movies.

One cool way we use language models is when we write emails. Have you ever noticed how your computer or phone can suggest how to finish your sentences when you're typing? That's a language model helping you! It guesses what you might want to say next.
So if you type "I had a great time at the...", the language model might suggest "party" or "park" because it's learned that these words often come after "I had a great time at the...".
So, just like Rocky can surprise Willy by guessing the next words in a conversation, language models can surprise us by guessing what we might want to say next!

Let's think about something really cool—a "large language model." Now, what if our friend Rocky the parrot woke up one morning with superpowers? Suddenly, he could listen to what everyone in the world was saying, not just the people at home but also in schools, in different towns, and in places far, far away! With this magic, Rocky could learn so many new things. If someone was talking about the past, Rocky could help finish their stories about history. If a cook was wondering what to cook, Rocky could give food advice. If someone wanted to buy a house, he could explain about **property** values in the town. He could even listen to the words of songs, and create his own song!

Inside a large language model, there's a big web of connections made of computer code that helps the model think. This web is so big that it can see patterns in words. Patterns are like the rules of a game that tell the model how words usually go together. Because of these patterns, large language models can do some wonderful things with words. They can help us write school reports, answer difficult questions, or even talk with us almost like a real person. And just like Rocky,

they can make guessing words a fun game. But remember, they're just using the patterns they've learned from all the writing they've read. Isn't that interesting?

ChatGPT is like a very smart helper in a computer. It's kind of like a robot that can talk to you. It uses a big, big book of words inside it to learn how to answer. This big book of words comes from something called GPT-3 or GPT-4, which are special helpers that can read and remember lots and lots of words. Just imagine if you had a robot friend who could listen to everything you say and then learn to talk back to you. That's what ChatGPT does with words. It reads stories, conversations, and even school books. After it reads so much, it gets good at **surveying** information, knowing what to say and how to answer questions. If you ask it, "Why is the sky blue?" it can give you an answer just like a teacher would.

ChatGPT is pretty smart because it learns a lot from reading, just like you learn from reading and listening to people. But sometimes, it might learn words that are not so nice, just like if Rocky the parrot hears someone say something that's not kind and then starts saying it too. When Rocky says something that's not nice, Willy helps him learn that those words aren't good to use. He tells Rocky to make a **shift** away from those bad words and teaches Rocky better words to say, like "please" and "thank you," and tells him which words make others happy. This is what people do with ChatGPT too. They help it learn which words are good to use and which ones aren't.

This is especially important because we want to make sure that ChatGPT doesn't say things that could be dangerous, harmful, or not **legal**. Dangerous words are like saying something mean or giving advice that could cause harm, like telling someone how to make a bomb. Just like Willy wouldn't want Rocky to repeat dangerous words, people don't want ChatGPT to say them either. So, people work very carefully with ChatGPT and **debate** telling it which words are safe to use. They are like **editors** who decide what should be in a newspaper or book. When ChatGPT understands this, it can chat with us in a way that is helpful and doesn't cause any trouble. That way, ChatGPT becomes a friendly helper, not one that could accidentally say something dangerous. In this way, ChatGPT becomes better at talking in a friendly way, just like Rocky becomes a nicer parrot to talk to. And even though ChatGPT is really smart with words, it's always learning and getting better, just like people learn new things every day.

These big computer programs, like the one that makes ChatGPT talk, are super smart! They can answer questions about the stars, the ocean, and even help with homework. They can make a big **contribution** to our knowledge. But even though they seem smart, they are different from people and animals because they don't have feelings. They can't feel happy or sad, and they don't have thoughts like we do and aren't **aware** like we are. They can't enjoy the taste of ice cream or feel excited about going to the park. They're a bit like a library full of books. Just as library **users** might find answers in books, these programs find answers in all the words and sentences they have stored inside them. So, when you ask them something, they look through all they have learned, find the best words that fit together, and then give you an answer. They are really good at playing a matching game with words to help you out. But they don't know what the words feel like; they just know which words go well after others. It's important to remember that they are tools to help us learn and discover things, but the laughing, playing, and feeling, that's something only living beings like you and me and even pets like Rocky the parrot can do!

Questions

1. What kind of animal is Rocky?
   A) Cat
   B) Dog
   C) Parrot
   D) Elephant

2. What are neural networks compared to in the text?
   A) A web
   B) A book
   C) A machine
   D) A painting

3. Where might a language model gather information about movies?
   A) Radio shows
   B) Newspaper articles
   C) Wikipedia
   D) Novels

4. What does a language model help with when writing emails?
   A) Correcting grammar
   B) Finishing sentences
   C) Adding attachments
   D) Creating addresses

5. Why do people teach ChatGPT which words to use?
   A) To improve its vocabulary
   B) To make it sound polite
   C) To prevent it from using harmful words
   D) To help it tell jokes

6. Why is it important that Chat GPT does not use dangerous words?
   A) To win competitions
   B) To sing songs
   C) To be funny
   D) To avoid causing harm

7. What are patterns in words used for by large language models?
   A) To predict word sequences
   B) To play music
   C) To draw pictures
   D) To perform on stage

8. What do large language models not have, unlike living beings?
   A) Knowledge
   B) Feelings
   C) Language
   D) Memory

9. What are language models compared to in the text?
   A) A calculator
   B) A refrigerator
   C) A television
   D) A library

10. Why should we be careful with Chat GPT's words?
   A) To make it faster
   B) To make it dance
   C) To improve its appearance
   D) To ensure it is helpful

Vocabulary Review

aware: having knowledge or perception of a situation or fact
Example: *They can't feel happy or sad, and they don't have thoughts like we do and aren't* ***aware*** *like we are.* (Paragraph 10)

contribution: something that is given or added to something else to help it succeed or improve
Example: *They can make a big* ***contribution*** *to our knowledge.* (Paragraph 10)

debate: a formal discussion on a particular topic where opposing arguments are put forward
Example: *So, people work very carefully with ChatGPT and* ***debate*** *telling it which words are safe to use.* (paragraph 9)

define: to explain the meaning of a word, phrase, etc
Example: *"Stochastic" is a big word that we can define as something that uses chance or randomness.* (Paragraph 2)

editor: a person who is in charge of and determines the final content of a text, particularly in a newspaper, magazine, or broadcast
Example: *They are like* ***editors*** *who decide what should be in a newspaper or book.* (Paragraph 9)

legal: relating to the law or to the system of rules that a particular country or community recognizes as regulating the actions of its members
Example: *This is especially important because we want to make sure that Chat GPT doesn't say things that could be dangerous, harmful, or not* ***legal****.* (Paragraph 9)

property: something owned; a possession, especially a piece of land or a building
Example: *If someone wanted to buy a house, he could explain about* ***property*** *values in the town.* (Paragraph 5)

shift: a move or change from one position or direction to another
Example: *He tells Rocky to make a* ***shift*** *away from those bad words and teaches Rocky better words to say, like "please" and "thank you," and tells him which words make others happy.* (Paragraph 8).

survey: to look at or examine all of something, especially to get information about it
Example: *After it reads so much, it gets good at* ***surveying*** *information, knowing what to say and how to answer questions.* (Paragraph 7)

user: a person who uses or operates something, especially a computer or other machine
Example: *Just as library* ***users*** *might find answers in books, these programs find answers in all the words and sentences they have stored inside them.* (Paragraph 10)