Why Do We Try to Predict Tomorrow?

Humans have always longed to know what lies ahead. From ancient oracles to scientific models, poetry to prophecy, we seek patterns, meaning, and sometimes comfort in the unknown.

Team Talk:

- Would knowing the future make your life easier or harder?
- Are predictions more helpful or harmful?
- If someone gave you a book of your life—would you read it?

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Poets Who Predicted the Future

Throughout history, poets have offered insights into the future—sometimes as warnings, sometimes as wonderings.

Horace | Ode I.11 (23 BCE)

Live for today. The future is unknowable.

Yeats | The Second Coming (1919)

A terrifying new world emerges as society breaks down.

Frost | Fire and Ice (1920)

Desire and hatred could both destroy us.

Dickinson | The Future—never spoke (1921)

The future arrives silently and without warning.

Ancient Divination: Asking the Unknown

Oracle Bones (Shang Dynasty)

Heated tortoise shells cracked to reveal insights.

Divination across civilizations

In Mesopotamia, Greece, Rome, Egypt, and beyond.

Common methods

- Astrology
- Hydromancy
- Bibliomancy
- Oneiromancy
- Haruspicy

Divination practices have existed for thousands of years, used to seek answers from gods, nature, and intuition.

According to USC Annenberg Media, Millennials and Gen Z are embracing fortune-telling practices not just as entertainment, but as emotional support, spiritual tradition, and a form of personal empowerment.

Why Do We Believe Predictions?

Barnum Effect

Vague statements feel personally true.

Confirmation Bias

We notice what fits our beliefs.

Cold Reading

Clever guesses feel prophetic.

Self-Fulfilling Prophecy

Belief shapes behavior—and outcome.

Our brains seek patterns. Psychology explains why fortune-telling feels real.

Do We Choose Our Future?

Can we control what happens? Or are we shaped by biology, upbringing, and external forces?

Stories to explore:

- Ted Chiang: *What's Expected of Us*
- C. Robert Cargill | *Sea of Rust* (2007): As robots decay and lose logic, they behave more like humans, challenging the line between programmed determinism and emotional choice.
- Sam Hughes | *I Don't Know, Timmy, Being God Is a Big Responsibility* (2007): In this mind-bending story, scientists create a quantum computer capable of simulating the entire universe—and discover they're inside one.

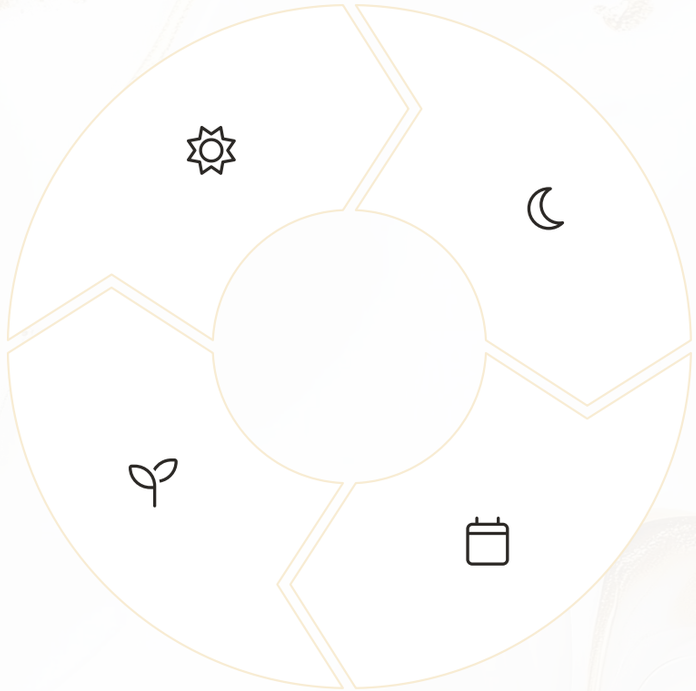
Discuss with your team:

- If you knew your world was simulated, would it change your behavior?
- Are good and bad choices still meaningful in a deterministic world?
- Is free will an illusion—or the only thing that makes us real?

Calendars, Cycles & Chaos

Solar Cycles

Tracking the sun's movement through the sky



Lunar Phases

Following the moon's monthly cycle

Agricultural Events

Planting, harvesting, and seasonal changes

24 Solar Terms

Specific seasonal markers for agriculture

Not all methods of foretelling the future are mystical—some are built from centuries of careful observation.

For example, the **Chinese Agricultural Calendar** combines both **lunar** and **solar** cycles to track time and seasons. Unlike the Gregorian calendar (which follows only the sun), this system watches both the moon's phases and the sun's movement through the sky. Lunar months determine festival dates like Lunar New Year, while **24 solar terms** help farmers know exactly when to plant, harvest, and expect seasonal changes.

Each solar term is based on how the sun's path changes throughout the year—like **Winter Solstice**, **Grain Rain**, or **Awakening of Insects**. These events signal specific weather patterns or crop conditions.

The result is a calendar that reliably predicts the movements of the sun and moon, ocean tides, astronomical events, and the turning of the seasons. In fact, as NPR reports, the Chinese calendar is a **lunisolar** system that has shaped not only agriculture, but also governance and science.

How Far Can We Predict the Weather?

1-3 Days

Highly accurate specific forecasts

4-7 Days

Generally reliable predictions

8-10 Days

Practical limit of accurate forecasting

Beyond 10 Days

Only probabilistic forecasts possible

According to a 2019 study in *Science*, the **practical limit** of accurate, specific weather forecasting is about **10 days**. That's because the atmosphere is a **chaotic system**—tiny changes in air pressure or temperature can lead to dramatically different outcomes over time.

While some companies, like AccuWeather, release highly specific 45- or even 90-day forecasts, most meteorologists agree these are unreliable and **not supported by modern science**. The American Meteorological Society advises that forecasts beyond 8 days often lack useful skill or accuracy.

However, meteorologists can make **probabilistic forecasts** much further in advance. Instead of predicting the exact temperature or rainfall on a given day, these forecasts show **likelihoods**—for example, the chance of above-average temperatures for a season, or an early start to hurricane season.

AI-Powered Weather Forecasting

Learning from History

GenCast learned from 40 years of weather data instead of solving equations like traditional models

Faster Processing

Runs in just minutes using machine learning, not supercomputers

Extended Forecasts

Can predict day-to-day weather, hurricanes, and cyclones up to 15 days in advance

Multiple Scenarios

Generates dozens of forecast scenarios to show what might happen—not just what will

How might AI prediction models change the field of meteorology?

New breakthroughs in **AI-powered forecasting** are pushing the boundaries. According to The Guardian, Google's **GenCast** model—developed by DeepMind—has outperformed traditional forecasts from the European Centre for Medium-Range Weather Forecasts (ECMWF). It can predict day-to-day weather, hurricanes, and cyclones **up to 15 days** in advance—faster and more accurately.

The real power? GenCast can generate **dozens of forecast scenarios** to show what *might* happen—not just what *will*. That makes it a major leap for understanding **uncertainty**.

Weather vs. Climate Models

Weather Models	Climate Models
Short-term conditions (7-10 days)	Long-term patterns (decades/centuries)
Rely on recent data	Simulate entire Earth system
Focus on initial conditions	Include ocean circulation, carbon cycle
Predict specific events	Forecast trends and probabilities
Change quickly with new data	Project scenarios based on emissions

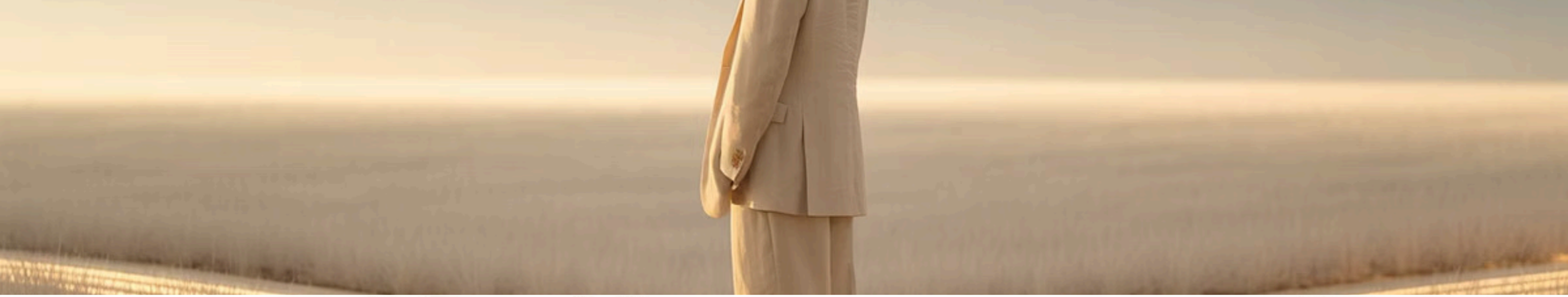
As The Conversation explains, weather and climate models use the **same physical principles**, but they serve **very different purposes**.

Because climate forecasts simulate the Earth system over long timescales, they don't aim to predict exact storms but focus on trends like **average temperature rise** or increased likelihood of extreme weather.

And while **AI can boost weather forecasts**, it's still uncertain whether machine learning alone can handle the complexity of long-term climate prediction—especially for climate futures we haven't experienced yet. That's why both types of models are vital digital tools.

Team Talk:

- Why do we need both types of models?
- Should governments trust AI-generated forecasts?
- How can we plan for a future with increased uncertainty?



Final Reflections on Prediction

Empowerment vs. Fear

Which predictions feel empowering? Which feel scary?

Art and Belief

What do art and music teach us about human belief?

Trust vs. Creation

Should we trust predictions? Or create our own path?

Throughout this exploration of prediction—from ancient divination to AI forecasting, from poetry to science—we've seen how humans continually seek to understand what lies ahead. Whether through careful observation, pattern recognition, or artistic intuition, our desire to know the future reflects our deepest hopes and fears.

As we face increasing uncertainty in our changing world, these questions become even more relevant. The tools we use to predict may evolve, but the fundamental human desire to prepare for tomorrow remains constant.