## **Weekly Progress Roundup**

Progress in cruise ships, weather forecasting, and global electricity access.

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### Global electricity access continues to rise

reversed during the pandemic. In 2023, however, progress resumed, and a recent update from the International Energy Agency predicts that in 2024, the number of people without electricity will fall to 737 million, the lowest in decades.

Like some other global trends, the steady growth in electricity access temporarily

#### Al weather forecasting achieves groundbreaking accuracy

DeepMind, Google's Al laboratory, has developed a weather forecasting model that is both faster and more accurate than the European Centre for Medium-Range Weather Forecasts' Ensemble Prediction System, a current leader in weather prediction. According to a recent paper in *Nature*, the DeepMind model demonstrated superior accuracy in 97.2 percent of cases and can generate forecasts in minutes rather than the hours required by conventional systems.

## Cruise ships keep breaking records

News of stagnation in the world of atoms has not reached cruise ship builders:

"Since the SS Great Eastern in 1858, the gross tonnage of the largest passenger ships has grown an average of 1.59 percent per year, nearly double the 0.84 percent annual growth rate in the height of the world's tallest buildings."

A new article in the *Works in Progress* magazine explores the lessons we can glean from this impressive growth.

Thanks for reading Doomslayer! This post is public so feel free to share it.



### Food & Hunger:

- Al Supercharging Crop Breeding to Protect Farmers from Climate
- A Seed Treatment to Transform the Agrochemical Market
- How Big Data Created the Modern Dairy Cow

## Energy & Environment:

- Per Capita CO2 Emissions Have Peaked Globally
- Meta Joins the Nuclear-Powered Al Fray
- Hawaiian Crows Return to Wild for First Time in More than 20 Years

## Health & Demographics:

- Measles Vaccines Saved over 90 Million Lives in the Last 50 Years
- India Sees Huge Drop in AIDS Deaths, HIV Infections Since 2010
- India's "Blockbuster" Drugs to Take On Deadly Superbugs
- "Neural Tourniquet" Can Stop Bleeding with Nerve Stimulation

# Science & Technology:

- US Airlines Have Traveled Light-Years Since the Last Plane Crash
  Amazon Announces Super-Computer, Homegrown Al Chips
- Waymo Unveils Plan to Bring Its Robotaxi Service to Miami
- FCC Approves Starlink Plan for Cellular Phone Service
- America's Biggest Apartment Owner Leaps Into Modular Homes
- Meta Plans to Build Subsea Cable Spanning the World, Sources Say
- Falcon 9's Flight Rate 30x Higher than Shuttle at 1/100th the Cost
- "DNA Typewriters" Can Record a Cell's History
- Satellites Launched to Create Artificial Solar Eclipses in a Demo
- Researchers Get an Updated Look at the Human Cell Atlas

#### Tweets:

- The maximum corn yield in the US has risen 37.4 percent in 10 years
- Communism is worse for the environment than capitalism
- The Earth has room for many more people
- Scientific breakthroughs of 2024