

Overview of Key Al Initiatives — Early Warning for All Al Subgroup Meeting —

Pelmorex is a trusted source of information and alerts

- We built and operate Canada's first and <u>only</u> national public alerting infrastructure, serving over 40M Canadians with 20+ different types of alerts in English and in French
- Third largest global weather and climate information provider in the world, the <u>only</u> one supplying public alerting solutions
- Reaching 55M+ global users monthly
- Canada's #1 Media Brand
- Distributing 70,000 alerts each year to TV, radio and wireless, including ~1,000 emergency alerts for situations posing an imminent threat to life









EMERGENCY ALERTS Yesterday, 6:11 PM

EMERGENCY ALERT / ALERTE D'URGE... At 6:09 p.m. Eastern Daylight Time Sunday, Environment Canada has issued a tornado warning for this mobile coverage area. Take cover immediately if threatening weather approaches. /// À 18h09 heure avancée de l'Est le dimanche, Environnement Canada a émis une alerte de tornade pour cette zone de couverture mobile. Mettez-vous immédiatement à l'abri si un phénomène météorologique menaçant s'approche.

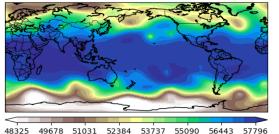
Pelmorex Al global weather forecast



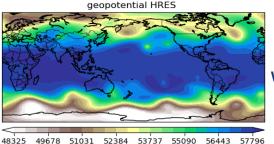
Pelmorex AI global weather forecast model

- Pelmorex leverages machine learning to create its own global weather forecast model
- Based on open-source version of GraphCast
- Pelmorex model is tailored to our own meteorological knowledge and fined-tuned using own training code
- The model has been trained on the most recent meteorological data
- Faster access to crucial data to forecast extreme weather events and natural disasters in the context of the Early Warning for All initiative

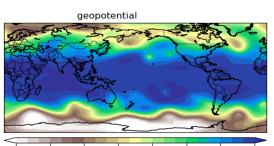
geopotential ERA5 Date:2019-05-04



Actual



ECMWF Weather Model



49678

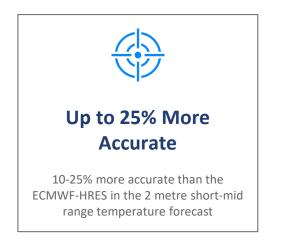
Pelmorex AI



51031 52384 53737 55090 56443

Redefining forecast speed and accuracy

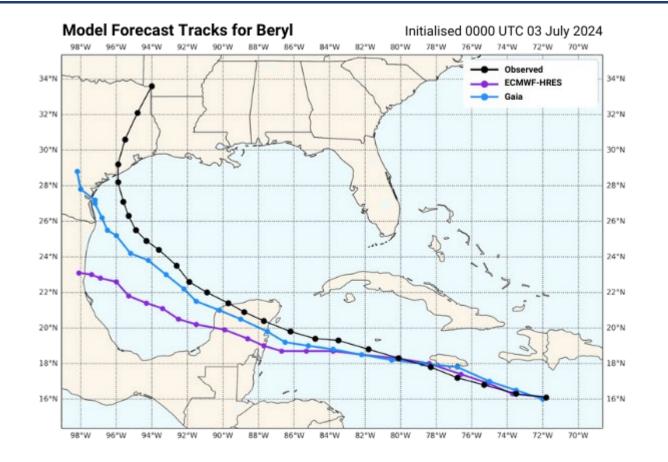
- Proprietary DL-NWP model built using 10 Mn+ gridded weather data sets
- Trained in-house on 40 years of ERA5, fine tuned on 4 years of ECMWF-HRES
- Produces a 15-day global forecast, 4 times a day, every day







Potential for predicting extreme weather events





Al avatars



Al avatars: An innovative and effective communication tool

- Al custom Avatars to deliver timely and relevant content to various audiences or populations
- Avatar use can be leverage as part of preparedness and/or response activities to an event
- Content available in over 170+ languages
- High security standards with encrypted watermarking technology to safeguard privacy and protect against unauthorized use
- Fully customize AI videos to localize content to thousands of communities
- Continuous Support and Scalability.







Environment Canada has issued a tornado warning for Northwestern Ontario.



Pelmorex AI committees



To ensure we do it right and with respect for our employees, partners and community Communication Committee

To ensure we communicate the what and why of our use of AI with transparency to all stakeholders Operational Committee

Test, learn, iterate, troubleshoot and launch Steering Committee

To ensure all divisions of the company are informed



Future initiatives



Exploring AI-backed enhancements for early warning systems



Prevention

- Continuous risk monitoring
- Reports on risk mitigation recommendations



Early Detection

- Remote sensing aggregation (sensors, satellites, CCTV cameras, drones)
- Fast and accurate detection of early-stage perils (e.g. heat signatures, flooding, etc.)



Prediction, Response and Control

- Leverage AI/machine learning models (e.g. climate, fire propagation, flood, etc.)
- Issue early warning alerts based on location intelligence; Alert automation



Empowering partners with critical alerting solutions to keep people and organizations safe and informed

We look forward to working closely with the EW4All AI Subgroup!



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