Weather Reporting at Speed And Scale

The UK Met Office wanted to expand its market and capitalize on its brand equity by providing more clients with a regular reporting service. They wanted to scale up from 60 human-authored reports per day to be able to satisfy many different information requirements, geographical areas, and reporting frequencies. Using an Arria NLG implementation that captures and automates their expertise, the UK Met Office can provide location-tailored weather forecasts for 5,000 sites around Britain. It does this in less than a minute – and the reports are virtually indistinguishable from those that the meteorologists would write.

The Challenge

Weather reporting is critical to many activities and industries, from providing farmers with reliable precipitation predictions to allowing installations such as wind turbines and drilling rigs to protect their operations against adverse weather. This requires the application of skilled interpretation to large sets of data, and it requires reporting at different frequencies and with many different interests in mind. Language choice is context-sensitive and it has to be made with great precision: ‘bad weather’ to one person may mean a rainstorm, while to another it’s 38 degrees Celsius.
There’s no shortage of data on weather, and ample predictive modelling capabilities. The real bottleneck in providing a reliable service is analysis and reporting, in appropriate language, and being fast enough to impact on decision making.

The Solution

The Arria NLG Platform is able to provide narratives that explain a weather system and its development. Configured with different audiences in mind, it can draw conclusions about the significance of weather events and what they mean to specific user groups, and express these ideas using both text and visualisations.

Meteorologists can use Arria NLG reports as a basis to build upon, or just as generated by the software. The big win here is speed: Arria NLG saves hundreds of hours of human labor, and allows a scaling up that makes further specialist services easier to provide.

**THE BENEFITS**

**Embedded Expertise**

The NLG Platform mines data to compare historical weather patterns and report on what’s happened in the past, as well as predicting what’s coming.

**Tailored**

Automated analytics manages different levels of certainty in predictions, expressing these in appropriate and natural-sounding language ('will', 'might', 'probably', 'a 60% chance').

**Efficient**

The NLG Platform can distribute reports using multiple channels, from SMS to speech, email to labelled charts. Rather than writing reports, analysts have their time freed up to improve predictions.
AUTOMATED WEATHER REPORTS

‘Meteorologist quality’ data analysis and written reports automatically generated for 5,000 location-tailored weather forecasts in less than two minutes.

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24 Hour Weather Forecast.
From 1800 on the 8th through to 1800 on the 9th.

This evening and overnight: Rain with some heavier spells spreads north over parts of the Western Isles to lie from the north to the southwest of the UK by dawn tomorrow, with a chance of snow over 300m in some areas of North East Scotland and Central Scotland towards the early hours.

Tomorrow: The rain band lying from the north to the southwest of the UK in the early morning will move northeast off shore before dying out by late afternoon. Further rain with some heavier spells reaching the northwest of the UK towards midday will move east and reach the north and west of the UK by early evening. Another area of rain will develop in some areas of Southwest England and Southern England from late afternoon onwards.
Get the real meaning behind your data, in real time

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