



An interactive weather forecasting strategy for the future

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Present day weather forecasting techniques rely on processing by supercomputers of the data collected from satellites, Meteorological stations, Radisonds, etc. Non availability of dense quality data (in time and space), Network speeds, Processor speeds of supercomputers and assimilation schemes are the main limitations to these forecasts which impede not only the accuracy but also the reach of the final forecast products to remote areas. In the present scenario the end-user of the forecast has almost no role to play except finally accepting the forecast.

The need of the hour is to make forecasts more customized, penetrative in terms of reach, interactive and accurate.

We propose a model of weather forecasting, which harnesses the significant increase in the network speeds, processor speeds that are expected in the coming decade and makes it interactive with the user.

IBM and INTEL have announced processors of up to 400Ghz in the coming decade and network speeds of 50 Gbps and more.

We propose a prototype of a highly distributed and interactive weather forecasting technique where the users help in not only collecting the data but also processing the data for their local needs. In the process we expect the accuracy of short-term forecasts to go up significantly.

The basic idea is to enable users to help in collecting data from their hand held devices. The user hand held devices can have a regional model customized for their location

and movements. A larger grid generates the boundary conditions of this model. Whenever a user wants a forecast he inputs the meteorological conditions as he sees them. These meteorological variables are used in the RM model that he runs on his hand held device. The centralized grid can also use the data collected by the user thus increasing the data pool. A user driven forecasting system should be more accurate and penetrative.