Mobile Weather

Modern cell-phones are also pocket computers of amazing power. They can do hundreds of millions of calculations per second, and speak a language called Java. The first computer weather forecast took a whole day to run on the best computer then around, the ENIAC. That was way back in 1950. Recently, Peter Lynch of the School of Mathematical Sciences recreated this forecast. With the help of his son Owen, he coded the algorithm in Java and ran it on a Nokia 6300 mobile phone, with the same data used for the 1950 forecast. In under a second the forecast was done. Peter now calls his mobile the Portable Hand-Operated Numerical Integrator And Computer, or PHONIAC.

From a hill-top, young Jill and her crony Jack Were transporting some water on pony-back.
But they feared, if it rained, They might slip and be brained,
For the forecast was "flash-floods" from PHONIAC.

We all know what happened to Jack and Jill, but the riddle of why they went up-hill to find water must be addressed by our colleagues in the School of Geological Sciences. A forthcoming article in *Weather* magazine tells the full story of the recreation of the forecast (see http://maths.ucd.ie/~plynch/eniac/phoniac.html). Cell-phones have tremendous potential for local processing of data for a wide range of applications.