

Geocomputation: The application of impossibly sophisticated methods to fiendishly complex datasets by hopelessly optimistic researchers

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This is the tenth conference so far in the Geocomputation series that started out in Leeds, UK, in 1996, and has moved to such exotic locales as Bristol, Ann Arbor, Queensland, Dunedin and Maynooth. In its origins, this community saw its mission as being (and I paraphrase):

“...to explore strange new datasets; to seek out new analysis methods with fewer limitations; to boldly compute where no geographers have computed before.”

In its beginnings, the Geocomputation community was a small and hardy band of believers, struggling to bring about the second phase of the quantitative revolution, or as Peter Gould might have said it, to ensure that the quantitative evolution actually does keep evolving. Did we succeed?

This talk will begin by briefly taking stock of the conference series to date: its aims, achievements and the general progress made. Then we will take a quick retrospective tour of major themes in Geocomputation, as exemplified by the conference abstracts to date, to see what the major recurrent themes are and how the conference has changed over time. We will also compare it to its sister conferences: GIScience and COSIT (Conference on Spatial Information Theory) to see if we are truly any different.

The problems of complexity that we set out to address in 1996 have only got worse, and in fact they have got worse at a measurable rate, (roughly) doubling every 1.5 years. All science disciplines are currently struggling to scale up to data intensive computing, now called the Fourth Paradigm in science, following: (i) Experiment & Measurement (ii) Analytical Theory and (iii) Numerical Simulations. But what kind of challenges does data-intensive geographical analysis produce, and what does Geocomputation have to offer to address them? Some of the challenges will be presented: and fortuitously it

would seem that addressing them will keep us going for the next 10 conferences at least.

The talk will be rounded off by a by a *tour-de-force* of geocomputational methods, contrasting them with other approaches to solving complex geographical problems that might be taken by other geographical research communities.