A Personal View of Teaching

(part of submission for UEA *Excellence in Teaching Award* 2006[*])

There are times when I come to the end of a lecture in a state of mental and physical exhaustion, like an actor who comes off stage at the end of a performance. Every lecture is a performance and each one is the best that I can give.

No two lectures are ever the same even if they cover identical material. This is because no two audiences are the same. Students are warned at the start of a lecture course that the experience will be as close as I can give to an Ox-Bridge style tutorial and that they are expected to fully participate. The successful operation of this Socratic approach is easy with small groups, but when classes can be as large as fifty students, then we have the real challenge which requires energy and enthusiasm.

It can take students some time to become used to my style, particularly when Ronnie Corbett-like digressions are used to illustrate points which, although apparently orthogonal are relevant to the main theme. There is also a significant element of drawing connections rather in the manner of James Burke on BBC, and later in the Scientific American. These are very valuable because they provide a wider context for students to lock their understanding. My objective is to minimise what needs to be remembered by maximising comprehension. A student evaluation form once described Dr de Cogan's lectures as being "a little like an indifferent wine heavily laced with glycerine: goes down very smoothly at the time, but heavens, what about the hangover?". I am proud of that.

Many claim that their teaching is informed by their research. My research is inspired by teaching. Trying to understand what it is that students don't understand and trying to find new ways of conveying difficult concepts leads to Eureka moments, at least for me:

> Some years ago students on CMPS2S22 *The Information Revolution and it origins* were given an open-ended piece of coursework where they had to look at aspects of transmitting messages over long-distance telegraph cables by Morse code. They were instructed to confer in groups. The group outcomes were astonishing. Several aspects of the technology that had not been recorded for posterity by operators from 1866 onwards were identified. These were felt to be sufficiently significant as to be worthy of dissemination to historians of technology. Results were integrated into a paper. Gareth Janecek provided statistical confirmation of the hypotheses. All students who had submitted coursework were included as co-authors.
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> The supervision of final year projects is another area where teaching can lead to original research. Most years I have at least one project that leads to a publication. This year I have an outstanding student who has already presented a conference paper at MIT and I believe that his project should yield a further three papers[+].

There is the saying *doce ut discas*. My academic career has been driven by an extension of this: *teach so that students learn to learn*.

Donard de Cogan
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[*] which was successful

[+] it did. He was also awarded a starred first class degree (every exam scored above 80%)