

A tale of two winters

I had to go to Louisville (pronounced "Louvel"), Kentucky in order to deliver on Thursday morning the opening keynote address for the three-day SIGCSE conference of 1989. I was obliged to do so in return for their Award for Outstanding Contributions to Computer Science Education. That Thursday was also the last day of the Computer Science Conference, which had started that Monday. This arrangement enabled me to address the combined participants of both conferences. (It turned out that I would have an audience of well over 1500, probably the largest audience I ever addressed; the PA system was up to it.) The Turing Award Lecture was late Wednesday afternoon, so that it could be attended by the SIGCSE participants that had arrived early enough; my impression was that quite a few of them had done so.

Ria and I left sunny Austin on Tuesday, 18:15 (with Northwest Airlines via Memphis); we returned in sunny Austin on Friday 12:02 (with American Airlines via Dallas). As far as transport was concerned, the flights were perfect: we flew on time, caught our connections and did not lose our luggage; moreover, none of the planes lost part of its fuselage. The food served need not be mentioned. The four cab rides to and from the airports were also

perfect. In short: we travelled smoothly. Whereas the taxis were cheap - at least by Dutch standards: a dollar the mile - , the flights were outrageously expensive: they did cost more than our recent return tickets from Austin to Amsterdam. (My ticket to Louisville will be paid by SIGCSE; 80% of Ria's ticket I can pay from my prize.)

Fortunately, one of my students, who had lived in Louisville, had warned me that, in February, Kentucky could still be quite cold. So we arrived well-prepared. But it was grim! The distance between the Galt House, where we slept, and the conference centre was only two blocks, but each time we gratefully used the shuttle bus. The busses came by once every four minutes, but one quickly learned to wait inside the building for the arrival of the next bus. Ria's original intention had been to see something of the town, its exhibitions and its craft shops; it was too cold, and she stayed with me instead.

For a variety of reasons, we slept very little in Louisville. On Wednesday morning, we observed the congestion at the "River Grill", where the Galt House served breakfast. On Thursday morning I had to perform, on Friday morning we had to catch a nine-o'clock flight, so those mornings we rose shortly after 6:00 (which is 5:00 Texas time). The night before my performance I hardly slept.

I was cold and shivering. I put it all down to nerves, until the curtains began to move and, a moment later, the wind blew open one of the windows: they had not been properly locked! Moreover I suspected the Galt House of conducting a controlled experiment in order to determine whether guests really want to have a say about the temperature in their rooms, and of having equipped all even-numbered rooms with a genuine thermostat and all others with a placebo. Needless to say, our room number was odd: we never observed any effect of our temperature settings! (Honesty compels me to add that, 15 minutes before our departure, we discovered that we had overlooked an On/Off switch underneath the thermostat; it was in the Off position.)

On Wednesday morning we attended (for our instruction) a joint presentation by funding agencies (NSF, DARPA, ONR, NASA, etc.) which described their views of their support of computer science. It was instructive, but not reassuring. My impression was that these institutions rather strengthen than try to weaken the phenomenon of "fads in computer science". Moreover, they did not seem to make a sufficiently clear distinction between computer usage and computing science, and seemed unaware of the fact that the latter is hardly served by funds earmarked for equipment. (Money earmarked for ridiculing the way in which

physicists think they can become instant experts in computing science by getting a supercomputer would be better spent.)

Wednesday afternoon we attended a session chaired by David Gries. As an outcome of the Snowbird conferences, the Ph.D.-granting departments of computing science have decided to set up a representation in Washington. (This primarily in reaction to the fact that there is no body representing the American computing scientists; ACM is a professional society, not a scientific one.) The purpose of the Wednesday afternoon meeting seemed to be to reassure the non-Ph.D.-granting departments that they would not be left out. I did not really understand what was going on. The latter outnumber the former by a factor 8; most of them must almost exclusively be engaged in vocational training and representation in Washington should represent the science and the scientists. Yet, David repeatedly asked suggestions from the floor for ways in which all those other departments could be "represented" as well. That evening we had dinner with David but talked about other matters.

Then we went to the Conference Center to attend the Awards Ceremony and, primarily, to listen to the Turing Lecture, delivered by Ivan Sutherland, who received the Turing Award

for his pioneering contributions to computer graphics. Though I could easily understand the motivations for the choice, I had my doubts about it: computer graphics lacks the depth needed to be considered a part of "the heart of the matter". The lecture was not on computer graphics but on "micro pipelines" - a special class of self-timed circuits - and was disappointing. The topic (of how to make a nice usage of the two-phase protocol in the context of self-timed circuits) was rather narrow, the talk was very technical, but at the same time detailed and superficial, he showed pictures of circuits most of the time and the way in which he tried to explain them was hopelessly old-fashioned and operational. Ria had difficulty in staying awake; quite a few people left the hall before he had finished - either because it was too much, or because they had expected more, I don't know - . Furthermore I advise the next Turing lecturer not to show irrelevant pictures of his grandchildren. Apart from such blemishes, the whole performance was in good taste; his diction was admirably clear and his English was often a pleasure to listen to.

I had to perform the next morning at the ungodly hour of 8:30. At 7:54, while still in the hotel, I fortunately discovered that the presentation of the award would begin at 8:15. At the queue at the

cloakroom, we were given priority and thus we just made it. My text "On the cruelty of really teaching computing science" had been handed out. I dislike delivering a talk that my audience can read at the same time - it is just as if you are addressing illiterates-, so I replaced more than 60% of my original text by different material. I made some new enemies, but some new friends too.

While, afterwards, I was surrounded by people that wanted to voice their reaction or ask me for clarification, Ria discovered that three graduate students from Harvard would like to speak to me and hadn't had breakfast yet. So we joined them in a nearby restaurant, where we drank coffee while they had their meal. We left them at 11:50, thinking that, perhaps, we had had too much coffee, but it must have been a very weak brew for it did not prevent us from taking a nap of several hours in the afternoon. That evening we had a relaxed dinner with the officers of SIGCSE: reasonable food in most pleasant company. The next morning we flew home; that afternoon we took another nap, but this time in our own bed. And then we were back to normal.

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One week later, Friday 3 March 1989, I had to

perform at Ada, Oklahoma. There, Bill K. Walker, the chairman of the department of computer science of East Central University, had invited me to address faculty members in the morning and students in the afternoon.

The distance from Austin to Ada being something like 360 miles, and Oklahoma being a beautiful state, we planned to combine this with a small camping trip; we thought about returning Sunday or, if the weather was very nice, on Monday. (I would pack my ink pot and enough blank paper.)

On Wednesday, our "Turing Machine" was packed but for the food, which Ria packed on Thursday morning while I gave my lecture at UT. (Ham Richards had given me a lift to UT.) At 11:00, when I had finished my lectures and left Taylor Hall, Ria was waiting there with our VW Westfalia, and five minutes later we were on IH35, heading North. It was a beautiful day, we drove in turns, and still before sunset we arrived in Ada, where Walker had offered us the hospitality of his home. His wife had prepared a nice (and welcome!) meal. We had had a long day and had a long day ahead of us; we went to bed on time and rose the next morning at 7:00. At 8:15 we were at the University, where I signed all sorts of papers and then prepared my 10 o'clock

performance on "The mathematics of programming."

It had been widely publicized: there were at least 50 faculty members, some of whom had come from as far as Dallas. The morning session was quite animated. For the afternoon session we were joined by, say, a hundred students. It was held in a larger room with two temporary blackboards that were a bit small for the size of the room; the PA system - I am happy to say - was adequate. That afternoon was hard work: I faced all the problems of addressing a very mixed audience. I gave a formal derivation of a binary search, applying the rules I had first given. Most students having followed an introduction to programming via BASIC, they formed an audience that was very hard to work with. My title had been something like "Formal program derivation in action" and my impression was that I succeeded in getting the message across; again, the discussion was quite lively. Afterwards I spoke for an hourlet with half a dozen of Walker's older students. Walker's wife having gone off to Dallas, we had dinner in town, where we were joined by one of Walker's colleagues. The day ended with several hours of discussion in Walker's - very pleasant! - library; sitting at a table I showed to Walker's delight the construction of a number of very nice arguments. I felt satisfied by what I had done and, looking for-

ward to our camping trip, we went to bed.

The next morning, a coldfront had passed and the temperature had dropped so low that we had to cancel our camping trip and headed South, homewards. But the roads got so icy that after 112 miles we did not dare to continue and were glad to find a room in the Gainesville Holiday Inn. We had seen enough cars in the ditch. That night, a second coldfront came along, covering the inch of ice with half a dozen inches of snow! We had to stay another two days in the hotel. On Tuesday morning the sun was shining, the air temperature rose above freezing and we decided to try to continue our journey at 11:30. As we could see from our hotel window that IH35 was still all but blocked, we headed for the 82 to Sherman. Leaving the parking lot of the hotel was terrible, driving through Gainesville was bad, but, once we were on the 82, conditions became much better and early in the evening we were home.

Going from our room to the restaurant or back meant an outside walk. These walks were most unpleasant and very dangerous; fortunately we could use a corridor so narrow that we could support ourselves at both walls. We managed never to fall. We admired the hotel staff: the

whole organization could cope with this invasion of stranded passengers. After the rooms had filled up, people went to sleep on the ballroom floor. We enjoyed the luxury of a room, moreover a room with a table at which I could comfortably write; I had packed an inkpot and enough blank paper. We had a book with us, Ria had knitting materials with her and we played a few games of Scrabble (in English, but I had also packed a dictionary). We never discovered how to get up to date information on road conditions and that became a bit annoying; otherwise we had a quite pleasant confinement.

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On Friday afternoon I had explained that I had chosen to derive a binary search because (i) everybody (thought he) knew the algorithm, and (ii) I knew that the vast majority - say 95% - of CS faculty was unable to write down the program. Despite that last warning, I received a week later a letter from a man who had been in my audience and felt that he could improve the efficiency of my program. Needless to say, his program was wrong!

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