

Trip report E.W.Dijkstra, Newcastle-upon-Tyne, 1-5 Sep. 1980.

On Monday 1st of September 1980 the British Caledonian flight from Amsterdam to Newcastle was $2\frac{1}{2}$ hours late, but on the way home I was much more fortunate: touch-down at 18:45 and -thanks to an immediately departing coach- home at 21:05.

The reason for my visit to England was the 13th Joint International Seminar on the Teaching of Computing Science. (Here "joint" means sponsored by IBM and organized by the University of Newcastle-upon-Tyne.) Having just returned from a three-week visit to the USA, I wasn't too keen to go abroad again so soon thereafter; my unfamiliarity with this year's topic, viz. Artificial Intelligence, made me decide to attend the Seminar nevertheless. It was very instructive, and I don't regret the visit. I shall deal with the speakers in alphabetical order.

Dr. H.G. Barrow (Artificial Intelligence Center, SRI International) gave three lectures on "Computational Vision". A repetitive speaker on a shallow topic, he was a punishment to be exposed to. (Seegmüller from Munich was quite indignant, calling them the worst lectures he had ever attended at a Newcastle Seminar. But that was at the beginning of the week and he hadn't heard Winston yet.)

Dr. J. Darlington (Department of Computing &

Control, Imperial College) gave two lectures on Automatic Programming. I had never heard Darlington before and perhaps my expectations were too high. His first talk (on "Past and Present") contained - obviously! - nothing new; his second lecture (on "Future") was neither inspiring nor convincing. Someone should have told him that densely type-written pages are improper material to be displayed by means of an overhead projector; the foils written by hand contained too many spelling mistakes.

Mr. D. D. Grossman (Automatic Research Group, IBM, Yorktown Heights) gave three lectures, two on "Programming Robots" and one on "Modelling Robots". His visuals were of the usual, insipid, kind (no grammar, but catchwords typed in capital letters only), but when one ignored most of these he was an absolute delight to listen to. He was well-informed about the state of the art and very instructive. Carefully avoiding to pronounce a judgement he made it very clear that the state of the art he described is entirely pragmatic.

Dr. M. H. E. Larcombe (Department of Computer Science, University of Warwick) gave one lecture on "Robotics Research in the United Kingdom". He had been asked to present a catalogue and he did just that. He, too, pronounced no judgement and gave a clear overview. In his comments

on British funding policy he was more explicit.

Dr. J. Strother Moore (Computer Science Laboratory, SRI International) gave three lectures: "Brief History of Mechanical Theorem-Proving", "A Tour through a Working Theorem-Prover", and "Program Verification." I enjoyed his lectures most of all; without all the cartoons I would have enjoyed them still better. (Are cartoons during lectures the visual analogue of background music in shopping centres?) Without overselling he gave a balanced overview, not shunning technical detail when appropriate. He was also a very conscious speaker (returning to a question raised at his previous talk because he wasn't satisfied with the answer he had given on the spur of the moment). His sense of humour shared characteristics with that of Grossman; I think "detachment" is the word.

Professor Y. Wilks (Department of Language & Linguistics, University of Essex) gave two lectures "Computers and Text Understanding" and "Computers and Dialogue Understanding", from which I got very little. He closed one of every five sentences with "OK?", and each time I was tempted to interrupt him with "To say the honest truth, Sir: No!" If he had expressed himself more carefully he could have spoken with a third of his speed (perhaps

conveying more). He said nicely nasty things about philosophers, but I doubt whether he was any better himself. Viewed as a demagogue, however, he was quite interesting to observe. The quality of the handwriting on his visuals — as on those of Barrow — was a disgrace.

Dr. P.H. Winston (Artificial Intelligence Laboratory, MIT) gave two lectures, one on "Learning and Reasoning by Analogy" and one with the parochial title "An MIT Perspective on Artificial Intelligence". Having heard his first talk I was grateful that, having to catch my plane, I was forced to miss his second one. Is having attained a greater verbosity and a greater superficiality AI's greatest achievement over the last decade?

Dr. W.A. Woods (Bolt, Beranek & Newman, Inc.) gave one talk on "Syntactic Control in Continuous Speech Understanding" and one on "Augmented Transition Network Grammars for Natural Language Understanding". (He did not seem to be the type of person to be aware of the syntactic ambiguities of the titles of his own talks.) During his first talk I listened with interest to the part that dealt with phonetics. His second talk convinced me once more of the inadequacy of an operational approach to programming. He was utterly amazed by my suggestion that the use of anthropomorphic

might be misleading ("But that's what we all do!"); in all his life he had clearly never given a single moment's thought to the question! (And then it was my turn to be amazed.....)

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With Professor K.F. Bowden (Department of Computer Science, University of Essex) I had an interesting conversation about the design history of the ATLAS. With Professor J. Katzenelson (Department of Electrical Engineering, Technion-Israel Institute of Technology, Haifa) I had a conversation which quite unexpectedly turned into a highly technical discussion: he thought he had solved the glitch problem! I also recorded the reaction of Professor D.J. Wheeler (Computer Laboratory, University of Cambridge) when I told him that, for the last ten years, I had taught programming using an intentionally not implemented programming language: "But how do you know then, whether a program works?". Admittedly, it was at breakfast, but even then..... Or was he pulling my leg?

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In his famous after-dinner speech (Baden bei Wien, 1964) Fraser Duncan rightly deplored the introduction of the term "programming languages", which had the consequence that what used to be "languages" had now to be called "natural languages". Dr. Woods showed us the next chapter of that deterioration by referring

to..... "really natural languages"! Similarly, Dr. Moore referred in his last lecture to "a real programming language" (meaning a subset of both FORTRAN 66 and FORTRAN 77). I think I shall really try to expel the word "real" from my active vocabulary.

I made another linguistic observation that seems significant: the more infected by AI, the more frequently the speaker, instead of referring to "the (real) world", referred to "the (real) world out there". I thought that very revealing (and very sick).

In summary, the theorem proving and program manipulation seemed sound science, the down-to-earth robotics seemed sound engineering, and the rest was definitely neither of the two. Despite my severe cold (from which I still suffer) I enjoyed the seminar: it confirmed all my prejudices and was therefore most comforting and reassuring. The seminar was exhausting: it made too heavy demands on our BSP's (= Bullshit Processors).

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