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Tripreport E.W. Dijkstra Newcastle, B - 12 September 1975.

On Monday the 8th of September I flew --i.e. "was flown"-- from Eindhoven to Amsterdam in the late afternoon. In the early evening I flew from Amsterdam to Newcastle; I did so in the company of Goos --now from Karlsruhe--, whom I had met in the resting area of Schiphol Airport and who was heading for the same destination as I: the IBM/Newcastle Symposium. Like nearly all German professors he talked more about the situations at his university than about his work. He told me that now they have 700 (!) students in computing science, and I could only guess, what he taught them. British Caledonian was only fifteen minutes late and the flight was about as pleasant as flights can be. After landing, the Newcastle cold surprised us; it would surprise us for the whole rest of the week.

While the participants at these yearly symposia are always pretty much the same --as are the jokes of Ewen Page--, the subjects are rather different and the speakers are refreshed accordingly. Last year--Formal aspects of computing science-- was a "hard" topic, this year's topic --Computers and the educated individual-- was as "soft" as soft can be, and I would have been disappointed if I had went with high expectations. On Monday evening, shortly after our arrival, our hosts Page and Randall were "at home" as usual --at Page's home, to be precise-- and this informal gathering was quite nice (as usual), and when all the other guests had left, I assisted (as usual) with the washing up. Brian and I walked back to "Hotel Randall", where I stayed, together with Jim Morning. The next morning, the symposium started in earnest, and the series of one-hour talks started.

Hemming (Bell Laboratories) gave two talks on "The History of Computers to the year 2000" and "Computers in the Coming Society". I found it very interesting to observe him and to see, what a successful career in big business can do to an otherwise intelligent man. If he has still the ability to doubt, he did not show it.

Naur (Copenhagen University) gave three talks, the first two on "An Adaptable Course of Elementary, University Level, Computer Science" and a last one on "Problems of Attitudes in Discussing the Computer/Society Relation." His three hours seemed about twice as much as what would be needed for what he wanted to tell. All three talks contained relevant information for those who are interested in the atmosphere of and the prevailing prejudices at Scandinavian universities today, and it all sounded pretty depressing. The course that he described was intended to be adaptable to students from various disciplines, what apparently meant that the medical students would get medical examples, the social scientists exercises from their field, etc. (I was surprised at the same with which he referred to "social scientists": are there any?). It was made quite clear that, rather than giving definitions "students would be required to recognize a card punch, when they were shown a photograph of it". It left me wondering, where the "University Level" came in. In his last talk I remember him pointing out the danger when the authority of the university was misused to back opinions favoured by the labour unions --i.e. backed for that very reason--. I could not agree more; if it happens, I expect the authority of the university to fade rather rapidly. (It seems to be doing so already.)

Clark (Washington University) gave three talks: The Basis of Present Computer Design, Alternative Computing Models, and Developments and Speculations. (His last one was the only talk that I missed, so I have really behaved myself.
quite well!) From the first two I have picked up nothing. The volume of his voice was terribly low, his diction made him difficult to understand, and, besides that, he made the impression of having given up hope, before he started, to cross the gap between his hardware interests and his (mainly) software-oriented audience. Those who have attended his third talk said later to me, that it had been much better than his first two ones. During the closing dinner on Thursday evening I had the pleasure of sitting next to him, and I enjoyed his then interesting company very much -- to the extent that I have no memory at all of what we have eaten! --

Mr. F.C. Goldberg (Watson Research Center) was the obligatory IBM-speaker (or should I say "speakster" or "speak-person" or "voice"?) with three talks on "The Future of Programming for Non-Programmers." She was terrible, her misuse of English really drove me up the wall. One of my colleagues tried to survive her torrent of nonsense by counting noisewords, such as "simply, sort of, kind of, you know, really, I mean, more or less, OK, that is to say, in some sense, in fact, first of all; and gave up after a total of 180 in 27 minutes. It was impossible to filter them out. But even apart from the noisewords, her language was abominable, even on her prepared transparencies. Of course she used "to execute" --with the subject "program"-- as an intransitive verb, she talked about "implementing answers", wrote about "objects" which in her explanation were "concepts" etc. and was able to state that something --obviously I have forgotten, what! -- was "simply a little bit crucial". My impression is that IBM would love to sell a great number of computer-driven colour TV-screens, and that a number of AI techniques will be used to keep the electronics busy. The need for elaborate man/machine interaction can certainly be enhanced by designing more incomprehensible systems. She was an insult to the audience.

Holt (Massachusetts Computer Associates) gave three talks on "Formal Methods in Systems Analysis" (title to be confirmed). On Wednesday afternoon -- during the "excursion"-- he talked to a small group of people at the university. (Because I had been writing that afternoon, I missed it but for the last 25 minutes.) He showed some very nice examples of the relevance of Petri-nets, for instance for the study of the possible behaviour of a consumer and a producer, coupled by alternatively used buffers. And he was very eloquent in arguing that it is a mistake to think that just "bare facts" can be recorded. He is very clearly -- and I think with great justification -- convinced of the nearly all-pervading "relevance" of his considerations, by the line that he then chooses subjects that any course in computing science should contain, I am no longer with him. Should the curriculum contain as a subject "History and structure of the computer industry"? He thinks so. Finally I am grateful to him for having drawn my attention to "the tracking problem". Someone who extracts -- or: constructs -- such a beautiful example, must have thought deeply. (In Holt's case it was interesting to observe the great variety in reactions that he evoked from different members of his audience!)

By far the most gifted speaker was F.J.M. Laver, C.B.E., a retired civil servant (from the post office) who gave two brilliant talks on "Informatics and Employment" and "Computation and Democracy". It was an absolute delight to listen to him, light-footed and serious simultaneously; he was the symposium's subject "Computers and the educated individual" become flesh! I shall not try to paraphrase what he said, as it is totally impossible for me to do justice to his performance. I wish that we would have more civil servants of that sort!

There have been three one-hour discussions. The first one did not really get moving. The second one --with the specific topic "What to Include in Courses"--
was not very exciting either, partly because curricula discussions are always
depressing, but probably more because its chairman Hamming had already made
up his mind many years ago. The last discussion, on Friday afternoon, was
a little bit more lively. On Ewen Page's request to stir up matters a little
bit, I opened it (with EWD512, that I had been writing on Wednesday afternoon,
as soon as I knew that Ewen would like me to present some views).

At various occasions, but particularly during that last discussion, I was
reminded of a recent remark by Tony Hoare, that the main difference between
the pure scientist and the business manager is, that the pure scientist has
the duty to strive after perfection, while the business manager must make the
best choice between the bad and the worse. And, seeing my English University
Colleagues, I can only conclude that in England higher education has become
big business.... Their problem seems no longer to be what insights to create
that should be taught if teaching is to be a worthwhile activity at all; their
main problem seems to be wick forms of coloured water can be poured into a
glass as if it were wine. And after forgetting for reasons of convenience that
this cannot never be done without faking, the arguments start discussing in
which semester it should be done, and by whom... Reminding them of their
obligations towards perfection is a act of indecency. Depending on my mood I
think all this saddening or alarming. (It was only this morning that I realized
that with one or two exceptions, I do not know what these professors of computing
science are doing! No one talked to me about his work; dwindling travel budgets
was a more common subject.)

The willingness to accept what is known to be wrong as if it were right
was displayed very explicitly by Hamming --who, as said, seems to have made
up his mind many years ago--. As so many others, he expressed in one of his
talks programmer productivity in terms of "numbers of lines of code produced".
During the discussion I pointed out that a programmer should produce solutions,
and that, therefore, we should not talk about the number of lines of code pro-
duced, but the number of lines of code used, and that this number ought to be
booked on the other side of the ledger. His answer was "Well, I know that it
is inadequate, but it is the only thing we can measure." As if this undeniable
fact also determines the side of the ledger....

On Friday afternoon we flew back to Amsterdam; again British Caledonian
did so with a delay of fifteen minutes. This time --but we shall not blame
British Caledonian for that-- the flight was bumpy. I made the trip in the
company of my Utrecht colleague van der Sluis, with whom I talked about a few
beautiful proofs and who told me something about the level of the discussions
between representatives of the Dutch universities and our Ministry of Education.
It is something like "If you believe only half of what I am saying, I am, therefore
entitled to lie twice as much."

At eight o'clock it was announced that the Amsterdam - Eindhoven flight
was canceled, due to a thunderstorm near Eindhoven, and it was only late that
evening when I came home. Saturday morning, while I was having a bath, we had
a tornado, and I knew that the summer was no more.

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PS. After I had introduced the msi --mili-split-infinitive-- as the practical
unit of linguistic irritation, Brian Randell threatened to name the unit of
"grammatical|pedantry" after me; I took it as a compliment!