A plausible conclusion of the above comparison seems to be that the best way of implementing pattern recognition tasks of this kind is a combination of Quinlan's inductive learning facility for decision tree construction, and a CLESS-like language for the development of attributes.

In more recent work, Quinlan (1980) reported that a solution for the 'knight-lost-in-3-ply' problem has been constructed using his inductive learning facility. This time 40 attributes were used. It is not clear how far in the number of ply Quinlan's line of research can proceed. On the other hand, while a non-search solution for the 3-ply problem may prove to be a manageable CLESS programming task, the 4-ply and further problems seem to be extremely difficult. The use of a Quinlan-like support facility seems to be necessary for higher ply problems.

An immediate experiment to explore the synergism of

Quinlan's ID3 and CLESS, would be to derive all attributes effectively used in the CLESS solution for the NLOST2PLY problem, and feed them into ID3 to obtain a corresponding automatically generated decision tree. A long term and a much more speculative experiment would be an attempt to combine Quinlan's system with an automatic attribute-generation facility based on cellular array primitives.

#### Acknowledgements

The authors would like to thank Professor Donald Michie for encouragement and permanent interest in this work, and his initial study of the NLOST2PLY problem which provided us with helpful experimental material. Z. Zdrahal was supported by the British Council, I. Bratko by the Science Research Council and A. Shapiro by an ICL/SRC Industrial Studentship.

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## Correspondence

To the Editor
The Computer Journal

The impact of microcomputer systems on commercial data processing Surely Mr Hammersley is mixing his matrices when he suggests that software cowboys work in the kitchen (Vol. 24 No. 1, p. 14). Has he never heard of a Ranch instruction?

Yours faithfully,

D. HARRIS

Siemens-Albis AG CH-8047 Zürich Switzerland 2 April 1981

To the Editor The Computer Journal Sir,

### Letter O and number 0

Concerning the fascinating suggestion (Vol. 24 No. 1, p. 95) by Mr A. A. Cr0xf0rd—as he seems to wish his name to be written—to abolish the distinction between the letter O and the number 0, may I suggest he is being too timid? May I propose we also confuse or merge the letter S and the number 5, I and 1, Z and 2, and even, at a pinch, B and 8?

Of course, there might be a few difficulties in the collating sequences; presumably the numeric sequence will have to be retained, so that Mr Cr0xf0rd will find himself in the telephone directory before Mrs Cr1xe.

But here's a daring thought—in the coming paradise of ubiquitous intelligent data bases, does anyone other than a data base specialist, archivist, historian, or librarian actually need to know the order of the alphabet?

Yours faithfully,

C. G. BREINER

83 Farlington Avenue Haywards Heath Sussex 3 April 1981 To the Editor The Computer Journal

Sir,

### Alternative History of Computing

I am currently engaged in compiling an alternative *History of Computing* which will focus on the lighter side of the development of the subject—highlighting the failures, the accidental discoveries, the legends both famous and infamous that have helped to shape the present day state of the art. I would be grateful for any help in the compilation of this work, and any contributions in the form of press cuttings, references, personal recollections etc. would be most welcome.

Yours faithfully,

M. WAKEMAN

996 Warwick Road Acocks Green Birmingham 22 April 1981

# Forthcoming meeting

25th Anniversary of the Rotterdam Econometric Institute 12–15 January 1982

In celebration of this anniversary, an international symposium will be organised. Its main purpose will be to bring together people from different parts of the world whose work is akin to the activities of the Institute to discuss recent developments in econometrics and related fields. Invited speakers include: J. H. Drèze, J. Durbin, D. Kendrick, E. Malinvaud, M. J. D. Powell and H. Thiel.

Further information may be obtained from:

Drs B. S. van der Laan, Econometric Institute, Erasmus University, PO Box 1738, 3000 DR Rotterdam, The Netherlands.