where in his program machine instructions in the basic language of that machine. It is this feature which gives the BCL list-processing system the same flexibility as L^6 whilst at the same time offering many of the higher level facilities which are normally associated with functional languages such as LISP.

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Book Review

Forecast 1968-2000 of Computer Developments and Applications, by R. F. Williams (Ed.) 1968. (*Parsons and Williams, Inc., Denmark*) 53 pages $12.50

This book presents the results of an opinion survey conducted among those attending the Conference 'FILE 68' held in Copenhagen in November 1968. Two questionnaires were issued asking for prophecies regarding the achievement of various accomplishments in the use and construction of computers during the coming decades. Discussion between the participants was not a feature of the survey and according to the authors 'Disturbing effects, such as specious persuasion and the bandwagon effect can thereby be reduced or controlled by the coordinators of the forecast.'

The reader is left wondering whether the elimination of discussion can really be a good thing, especially as this is a time-honoured way of arriving at agreed views on controversial topics. Moreover, since the results of the first questionnaire were circulated with the second questionnaire, the bandwagon effect still had a way of operating. It would also be interesting to know how the organisers ensured, as they claimed, that 'other inter-personal contacts are avoided'.

The questions included in the questionnaires covered a wide range of possible developments and were not all very clearly defined. One for example asked for the predicted date of 'computers learning from their experience' and another the 'obsolescence of book libraries as known today for general factual information'. The sample was comparatively small (174 people) and the process by which they were selected

(i.e. attendance at one particular conference in Copenhagen) not very random. These people were predominantly interested in business applications of computers, though they were fairly well distributed between managers, analysts, programmers, etc. Only 60% of them replied to the first questionnaire and 50% to the second.

The report starts with a commentary which at the present stage of computing seems somewhat banal and its connection with the questionnaire is not at all clear; it seems to be a digest of the author's own opinions.

The deductions from the survey are also not presented very clearly and it is not stated exactly how the tabulated results were derived from the participants' replies. One even wonders about the author's grasp of statistics on reading such statements as 'the median was used to describe the average year'.

There is little doubt that such surveys as this can be of considerable interest and value to anyone making policy decisions that have long term implications, but they should be done with care and it must be remembered that they are always likely to tell us more about the participants than about the actual future. It might indeed be interesting to do a comparative study showing how opinions vary from one group of people to another. It might also be a good thing to throw in a few test questions which are designed more to show the participants' knowledge and grasp of the present computer scene than their views on the future. The fact that this survey was made with apparently little attempt to deal with such subtleties detracts from its value.

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