

STELLINGEN

1 - When designing Bayes classifiers, it should be well understood that good estimates of probability density functions is a sufficient but not a necessary condition for close-to-optimum classifier performance.

2 - Assigning different weights to the different kinds of errors made by a classifier, is a practice which is correct and well adapted to many real life situations. However, the problem remains as to what values to assign to the weights. The following statement should always be taken into account: there is always a set of weights which will give your classifier a 'minimum' risk rate. Whether or not the obtained risk rate is meaningful, is a different question.

3 - The design of a classifier is an optimization procedure. Therefore, more efforts should be directed to the study of the statistical properties of minima and/or maxima of the criterion functions used.

4 - An interactive system for pattern recognition is a very useful tool for research, if its use is correct, carefull and well documented. Otherwise, the results obtained may not be reproducible.

5 - More and more, the development of scientific research requires the cooperation between specialists in various fields. It is striking to note the difficulties in communication between them.

6 - In the specialized literature, papers and/or reports that present so-called preliminary results, are often found. A study aimed at the estimation of the number of these preliminary results that give rise to final results, would be illuminating for editors, referees and readers.

7 - The interpretation of scenes requires low-level tasks (low-level image processing) and high-level tasks (knowledge-driven symbolic reasoning). A key to better performance lies in efficient feedback mechanisms between these two levels.

8 - In many robot applications, the expected objects and environment are well known beforehand. Therefore, if this a-priori knowledge is available, it should be exploited for improved sensorial data interpretation.

9 - A CAD system coupled to a robot vision system is a promising approach for the automatic generation of vision models. However, current CAD representation schemes are not well suited nor easily adaptable as vision representation schemes.

10 - One of the most important differences between the 19th century industrial revolution and the revolution produced by the new information technologies, is that the sociological impact of the former was immediate and clear whereas the sociological impact of the new technologies is not at all clear, delaying the development of new sociological models that take into account the changes induced. The speed at which the current changes are being introduced, is one of the reasons that explains why sociologists have been unable so far to adjust their models.

11 - Research is expensive. It is therefore reasonable that governments in various countries try to check the effectiveness of the work done. Nevertheless, scientific research should not become oriented towards the fulfillment of a given number of criteria defined by a given number of overzealous bureaucrats.

C.E.Queiros, September 1988.