



EUNITE Roadmap



Bibliography Survey on IM and SAS

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CoIL Roadmap (<http://www.dcs.napier.ac.uk/coil/>) includes a survey on hybrid methods based on a list of on-line bibliographies. They used as key words: neural, evolution, genetic algorithms, machine learning, fuzzy, case based reasoning, knowledge acquisition, data mining and broadened the search by using when possible the "stemming" option which gives hits for words with similar endings. The aim was to find publications that combined in their text at least two Intelligent Technologies. Their findings are shown in Figure 1 and more information is available in their Roadmap.

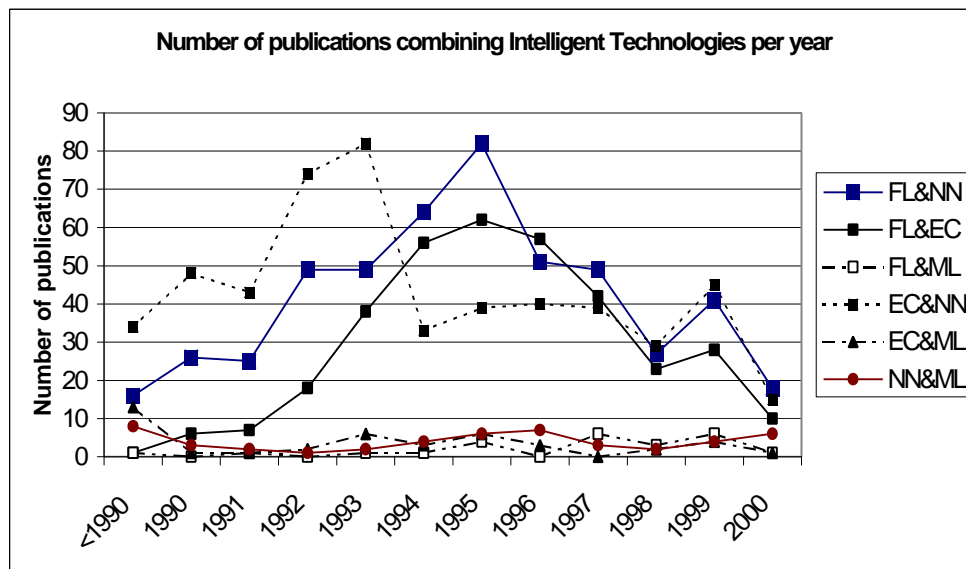


Figure 1. Bibliography survey on application of hybrid systems combining two Intelligent Technologies. (Source: CoIL Roadmap)

Same kind of survey was repeated in EUNITE during the second year of operation. In this case, "adaptive" was the keyword and different combinations of it the names of Intelligent Technologies were used.

The results are shown in Fig. 2. The biggest uncertainty in this picture is connected with the adaptive application of neural network technology. It is supposed that these figures include also common NN applications where "adaptive" refers only to the learning stage.

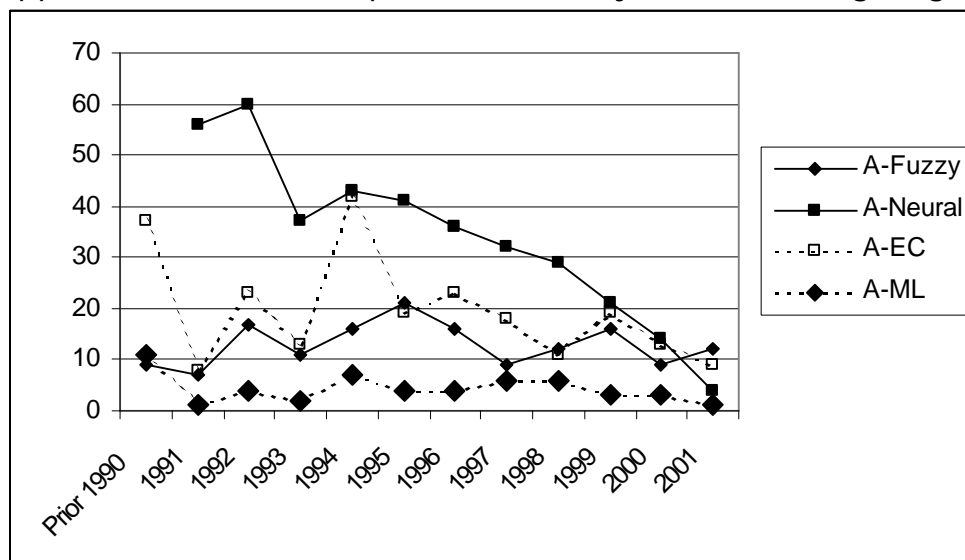


Figure 2. Bibliography survey on applications of SAS. "A" refers to "adaptive". Note that the number of "A-Neural" prior to 1990 was so high that it was left out from the figure.

The figure tells that NN applications dominate, but their number decreases at the end. This may also be due to the fact the most bibliographies delay in inclusion the publications, as already noted in the CoIL Roadmap. Fuzzy and EC applications have remained quite constant and follow the same trend during the years. The number of ML applications increase in the beginning of 1990's, but remain on the lower level compared to fuzzy and EC.