Editorial
The Journal Citation Report:
Testifying for Neural Networks

FIORELLO LaGuardia (1882–1947), former mayor of New York and airport namesake, is credited for the sage remark "Statistics are like alienists—they testify for either side." Here are some statistics that testify loudly for neural networks. Yearly, the Institute for Scientific Information publishes Journal Citation Reports (JCR), ranking the impact of journals by topic. The ranking is based on frequency of citation compiled from the Institute's Science Citation Index. Ranking is in accordance to an "impact factor" equal to the "average number of current citations to articles a journal published in the previous two years." The JCR for 1994 was recently published. The IEEE TRANSACTIONS ON NEURAL NETWORKS (TNN) made four lists—and ranked high in each category.

I. "Engineering: Electrical and Electronic." This list, the longest, lists 138 electrical engineering (EE) journals. The TNN ranks number five. Seven of the top 10 journals on this list are IEEE publications.

1) Semiconductor Semimet.;
2) IEEE JOURNAL OF QUANTUM ELECTRONICS;
3) IEEE TRANSACTIONS ON PATTERN ANALYSIS AND MACHINE INTELLIGENCE;
4) IEEE TRANSACTIONS ON INFORMATION THEORY;
5) IEEE TRANSACTIONS ON NEURAL NETWORKS.

The lowest IEEE publication, the IEEE TRANSACTIONS ON EDUCATION, enters the list at 109. Dead last is the *Sharp Tech Journal*. Some important publications, such as the IEEE TRANSACTIONS ON FUZZY SYSTEMS, the TNN's sibling journal, do not appear on the list. This may be due to a publication's youth and the corresponding unavailability of citation history.

II. "Computer Science: Theory and Methods." This category of 37 entries lists TNN as number one.

1) IEEE TRANSACTIONS ON NEURAL NETWORKS;
2) Computer Survey;
3) ACM Transactions on Computer Systems;
4) Journal of Logic Program;
5) Real-Time Systems.

III. "Computer Science: Hardware and Architecture." The TNN, here, is also number one in a list of 35 journals.

1) IEEE TRANSACTIONS ON NEURAL NETWORKS;
2) Communications of the ACM;
3) Journal of the Association of Computer Mach.;
4) IEEE TRANSACTIONS ON COMPUTERS;
5) Performance Evaluation.

IV. "Computer Science: Artificial Intelligence." Of the top five journals in this category, three deal exclusively with neural networks. Here, the TNN ranks number three on a list of 32 entries. The rankings are:

1) Neural Computation;
2) IEEE TRANSACTIONS ON PATTERN ANALYSIS AND MACHINE INTELLIGENCE;
3) IEEE TRANSACTIONS ON NEURAL NETWORKS;
4) Neural Networks;
5) Artificial Intelligence.

Two golds, a bronze, and, in the big field of EE, an impressive number five finish. Even a well-paid alienist will testify these are undeniably impressive statistics for neural networks and the TNN.

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