

TABLE OF CONTENTS

Table of Contents	113
To the Test Bed, with Love (I.S. Herschberg and H.J. van den Herik).....	113
Neural Networks as a Guide to Optimization (A. van Tiggelen)	115
Genetic Algorithms Optimizing Evaluation Functions (W. Tunstall-Pedoe)	119
Notes:	129
Some Results from a Massively Parallel Retrograde Analysis (L. Stiller)	129
A Side-effect of New Database Knowledge (A.J. Roycroft)	135
An Additive Evaluation Function in Chess (I. Althöfer)	137
First among Equals (D.N.L. Levy)	142
Reviews:	143
D.N.L. Levy and D.F. Beal (eds.): Heuristic Programming in Artificial Intelligence 2 (J.W.H.M. Uiterwijk)	143
D.F. Beal (ed.): Advances in Computer Chess 6 (M.S. Campbell)	146
Information for Contributors	148
Literature Received:	149
T.A. Marsland: Single-Agent and Game-Tree Search	149
ICCA's Sponsors	149
News, Information, Tournaments and Reports:	150
Man and Machine, Theory and Practice Square off in Sydney (R.A. Levinson)	150
The Role of Chess in Artificial Intelligence Research (R.A. Levinson, F.-h. Hsu, J. Schaeffer, T.A. Marsland and D.E. Wilkins)	153
How Well Do Computers Play? (T. Draisma)	162
Chess Results and Games of the 3 rd Computer Olympiad (J.W.H.M. Uiterwijk)	165
More Selected Games of the 1991 AEGON Man-Machine Tournament (C. de Gorter)	168
More Games of the 11 th World Microcomputer Chess Championship (M. Valvo)	170
The Swedish Rating List (T. Karlsson and G. Grotting)	176
Correspondence:	177
Personal Chess Endgames (H. Nefkens)	177
A Missing Rule (L. Lindner)	178
Mind over MIPS (R. Gellner and G. von Rekowski)	179
How the Journal Reaches You	180

TO THE TEST BED, WITH LOVE

That a large part of this issue is devoted to Artificial Intelligence should not be taken as an insult to our readership which considers itself happy in the possession of intelligence in its natural variety and, in the deepest recesses of their minds, may think of AI as artificial idiocy. Nor has this Journal been taken over by bug-eyed monsters, arrived from outer space to teach human beings their superior variant of seeking out beautiful Caissa with hot Venusian breath.

Rather, the fact is that AI as a discipline has reached a tumultuous age, its puberty so to speak, and demands to be taken seriously by all the world in all its aspects, from mineral exploration to separating the sheep from the goats in the credit-card industry, from medical decisions to forecasting wind and weather. Our adolescent claims every and any field as his and has not exempted computer chess from its professed omnipotence.

And of course, AI has a jargon all its own, as befits a person of its age. (Who understands the slang of their own kids?). Notions like genetic algorithms, neural networks and simulated annealing flourish in spite of their dubious ancestry, out of Operations Research by brain anatomy and Mendel knows what else. It may also be that we have asked for it, at least in some measure: the Computer in the title of this Journal must have attracted the AI

community irresistibly. Computers are a natural breeding ground for AI and so is chess for AI research, at least according to some who describe it as a particularly suitable test bed. One wonders: a test bed of love for this headstrong adolescent?

For a minimum, the computer-chess community sees its well-established ideas clothed in the most fashionable of new garbs. One sometimes feels that venerable ideas have been revived and are now paraded in accoutrements ill-befitting their hoary pates. For a maximum, one is entitled to hope that new ideas may sprout because of the freshness of the fields and the vital nature of the fertilizing substance.

After all, who dares wager with confidence that no fine algorithms are waiting to be discovered? And if they are discovered by unorthodox means, one must say: so much the worse for orthodoxy. So, let us extend a welcome, be it in moderation, to the Artificial Intelligence community who regard us as a test bed with the lights of love in their eyes.

Meanwhile, tried and trusted methods create enough problems of their own. It seems that the existence of databases impacts the natural intelligence of players. A new style of hopeful young masters is reliably reported to be growing up, undaunted by computers and databases, no, rather stimulated by them. They are disparaged as mere memory experts, because they are able to digest those databases and actually revel in the hundreds of new games published weekly in database form on a mere flimsy floppy. In public, this new style of player complains about the groaning boards of the new database fare. In secret, they gobble up huge helpings of it and thrive on what in an older generation would lead to massive indigestion at least.

The two strands of our reverie meet, disparate as they may seem. They unite in the notion of classification, beloved alike by those of the AI persuasion and those finding salvation in databases. Classifiers of whatever belief can now agree on a dichotomy of endgames: those within the 50-move limit and those beyond it. In the latter class we have a new equation, due to Lewis Stiller:

$$51 \equiv 223 \pmod{\text{FIDE}}.$$

Would it were so. Unfortunately, FIDE is not completely guided by databases ..., but perhaps it is not too much to hope that as more instances of the class *51 and over* are brought to light, FIDE, dear old, stodgy and old-fashioned FIDE, will come to prefer the objective views out of Computer by Database to the subjective analyses of authors now long dead. Let us pray that FIDE will do so – resolutely, uniformly and speedily.

Anything this Journal can do towards achieving this end, as a repository of databases and as a stimulus to end-game research, will be gladly undertaken by your Editors and the industrious authors whose new results are most welcome to these pages.

Bob Herschberg
Jaap van den Herik

This Journal now has a new Email address. Below is how you may tap into our lines of communication.

Telephone:	+31 43 887477
Fax:	+31 43 252392
Email:	icca@cs.rulimburg.nl