Electronic Transactions on Artificial Intelligence
Vol. 4 (2000), Section B: pp. *125-140*
http://www.ep.liu.se/ej/etai/2000/014/

Refereed Article

Dorian Suc and Ivan Bratko:

Qualitative Trees Applied to Bicycle Riding

Authors' affiliation: University of Ljubljana, Slovenia.

Abstract: *We present a method for learning qualitative constraint trees implemented in the program QUIN (qualitative induction). At difference with usual decision trees, the leaves of* qualitative *trees contain qualitative functional constraints as used in qualitative reasoning. We demonstrate the use of qualitative trees by their application to the difficult task of cloning the human skill of bicycle riding. The approach results in qualitative controllers that are straightforward to explain, and also enable optimization of corresponding quantitative controllers which carry out the task in the style similar to the human, but more effectively.*

Publication and review history

This work was first presented at the Machine Intelligence 17 Workshop, held on July 19-21, 2000 at Bury St Edmunds, Suffolk, UK. Attendance at this workshop was based on invitations. Speakers at the workshop were invited to submit their articles for consideration in the forthcoming workshop volume. The subsequent publication and review history for the present article was as follows.

1. First version *published* by Linköping University Electronic Press on 21.12.2000 and permanently available at
   http://www.ep.liu.se/ea/cis/2000/040/
2. First version *accepted* after due refereeing and according to scientific journal standards by the Electronic Transactions on Artificial Intelligence (ETAI) on 27.3.2001. Authors were invited to revise their articles, if they so desired, based on comments by the reviewers.
3. Revised version *accepted* on 24.12.2001.
4. Revised version *published* by Linköping University Electronic Press on 31.3.2002 and permanently available at the same URL as mentioned above.
5. Revised version appears in Electronic Transactions on Artificial Intellligence, Volume 4 (2000), section B, pages 125–140. The section and the annual volume are made permanently available at
   http://www.ep.liu.se/ej/etai/
6. Paper editions of the ETAI issue and the ETAI volume containing this artice *republished* by the Royal Swedish Academy of Sciences.

The review policy and the quality requirements for acceptance are documented at http://www.etaij.org/info/

Article maintenance

The Electronic Transactions on Artificial Intelligence maintains an Article Interaction Page for this article at
    http://www.etaij.org/ra/mi/016/
Besides the publication and review history, it contains links for contacting the author(s), as well as to amendments and other related information for the article. It is intended to keep these links up-to-date in the future.

Copyright conditions