IEEE CIS

AMD Newsletter

Robotics
Psychology
Neuroscience
Machine Intelligence

The Newsletter of the Autonomous Mental Development Technical Committee

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6 *Oxford University Press*
6 *Oxford University Press*
6 *Science*
6 *Cerebral Cortex*
6 6 6 *Annual Review of Neuroscience*
6 6 6 *Int'l Joint Conf. Neural Networks* 6
6 6 6 6 *IEEE International Joint Conference on Neural Networks* 6
6 6 *IEEE 9th International Conference on Development and Learning* 6 6
6 *International Joint Conference on Neural Networks* 6

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Handbook of Language Evolution

Juergen Schmidhuber, IDSIA, Galleria 2, 6928 Manno-Lugano
University of Lugano & SUPSI
Switzerland

symbols

Long Short-Term Memory

goal-oriented meaning

external 6 *intrinsic*
6 *expresses* 6
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6 *symbol changes*
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not at all 6 *consciousness*
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6 6 *Proc. Int. Joint Conf. on Neural Networks IJCNN 2005*
6 6 6 *IEEE Transactions on Neural Networks*
6 6 6 6 *Advances in Neural Information Processing Systems 21*
6 *Neural Computation*
6 *Neural Computation*
6 *Universal Artificial Intelligence: Sequential Decisions based on Algorithmic Probability*
6 *Journal of AI research*
6 *Problems of Information Transmission*
An Introduction to Kolmogorov Complexity and its Applications (2nd edition)
6 6 6 *Neural Computation*
6 6 6 6 *Proc. 10th Intl. Conf. on Discovery Science (DS 2007), LNAI 4755* 6 *ALT 2007 and DS 2007*
6 6 6 6 6
6 *SICE Journal of the Society of Instrument and Control Engineers*
6 *Cognitive Computation*
6 6 *IEEE Transactions on Autonomous Mental Development*
6 6 6 *Neural Computation*
6 6 6 6 *Neural Computation*
6 6 6 *IEEE Transactions on Neural Networks*

6 *Bell System Technical Journal*
6 *Information and Control*
6 *IEEE Transactions on Information Theory*
6 6 *Computer Journal*
6 *Neural Networks*
6 6 *Backpropa-gation: Theory, Architectures and Applications* 6

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MIT Press

Angelo Cangelosi
Adaptive Behaviour & Cognition Lab, Centre for Robotics and Neural Systems
University of Plymouth, UK

Behavioral and Brain Sciences

Perception and Psychophysics

Handbook of Categorization in Cognitive Science

Cambridge University Press


Yuuya Sugita and Martin V. Butz
Department of Psychology III (Cognitive Psychology)
University of Würzburg, Germany

situated linguistic meaning lies in the challenge of learning to harmonize compositionality with the available embodiment.

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2.

gestalt, which arises from – or is grounded in

internal

external, relational structure among

n

(1) modularity and (2) anticipatory, self-motivated drives – two ingredients that the brain appears to use excessively (Butz, 2008). Seeing that the brain solves the situated linguistic meaning problem seemingly at ease, the mixture of computational

Chicago University Press

The University of Chicago Press

Adaptive Behavior

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(Kernell et al., 2008). This is like a superior “genome” program for a nation. Check-and-balance of power seems the most

(Miyan, 2010) clarifies that words are not represented as discrete representations for sensory objects exclusively, but as bor-

2011; Miyan & Weng, 2010) explains that the brain does not have any “gates” dedicated exclusively to time. Internal repre-

2012. The BMI web site is at http://www.cse.msu.edu/bmi/. With a clear theoretical framework for the brain-mind and its

Proc. Int. Joint Conference on Neural Networks

Congressional Quarterly

University of Chicago Press

Proc. IEEE Int. Joint Conference on Neural Networks

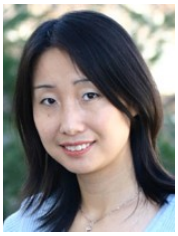
Proc. IEEE 9th Int. Conference on Development and Learning

Nature

Science

Proc. Int. Joint Conf. Neural Networks

Proc. Int. Joint Conference on Neural Networks

Yaochu Jin, Department of Computing, University of Surrey, UK
Yan Meng, Department of Electrical and Computer Engineering
Stevens Institute of Technology, USA

Developmental robotics *epigenetic robotics*

Morphogenetic robotics

hard-wired

evolution

Evolutionary robotics

evolutionary developmental robotics

Interaction Studies,

Nature

IEEE Transactions on Systems, Man, and Cybernetics, Part C: Applications and Reviews

IEEE Transactions on Evolutionary Computation

IEEE Transactions on Autonomous Mental Development

Nature Review Genetics

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IEEE TRANSACTIONS ON
AUTONOMOUS MENTAL DEVELOPMENT

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How is our body imprinted in our brain? This seemingly simple question is a subject of investigations of diverse

In this paper, we discuss the requirements of cognitive architectures for epigenetic robotics, and highlight the wi-

The multilevel Darwinist brain (MDB) is a cognitive architecture that follows an evolutionary approach to pro-

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Page(s): 4 - 5 ( )