



BIOLOGICALLY INSPIRED COGNITIVE ARCHITECTURES

AUTHOR INFORMATION PACK

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DESCRIPTION

The focus of the journal is on the integration of many research efforts in addressing the challenge of creating a real-life **computational** equivalent of the **human mind**. Therefore, the journal publishes on the multidisciplinary study of **cognitive architectures** found *in vivo* and *in silico*.

To help foster a wider understanding, at a computational level, of how **natural intelligent systems** develop their **cognitive**, **metacognitive**, and **learning** functions, the journal will promote the overarching goal of creating one unifying widespread framework for the computational modeling of **biologically inspired cognitive architectures**.

The scope includes (but is not limited to): **Cognitive science**, with a focus on higher cognitive functions and their cognitive architecture models: including autonomous cognition and metacognition, imagery, sensemaking, meta-learning, self-regulated learning, life-long learning and cognitive growth, "critical mass" of a learner, models of creativity, affects, emotions and feelings, emotional competence, social cognition, the self, human-like episodic memory, language perception, processing, production, acquisition, and development; **Computer science** and **engineering**, with a focus on human-like artificial intelligence: cognitive architectures, virtual and physical cognitive robotics, synthetic characters, bootstrapped and human-like learning, human-computer interface, vision, computational linguistics, intelligent tutoring systems; **Neuroscience**, with a focus on higher cognition and learning: system-level computational neuroscience, cognitive neuroscience, models of the neural substrates of semantic and episodic memory and awareness, agency, emotions and feelings, theory of mind and social cognition, language, imagery, voluntary control, goal and value systems, spatial cognition, etc. Contributions to the journal should include a **cognitive architecture** element and an element of **biological inspiration**, the latter understood broadly (e.g., inspiration by the human cognition). Both mature and new cutting edge research are welcomed, provided they have a strong emphasis on concrete empirical or theoretical studies. [Submissions](#) of a purely philosophical nature are discouraged and will be redirected elsewhere.

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Specialties: Neuroanatomy and hippocampus.

GUIDE FOR AUTHORS

INTRODUCTION

Contributions to *Biologically Inspired Cognitive Architectures* should include a cognitive architecture element and an element of biological inspiration, the latter understood broadly (e.g., inspiration by the human cognition). Both mature and new cutting edge research are welcomed, provided they have a strong emphasis on concrete empirical or theoretical studies. Contributions need to be clear about what their particular advance is toward solving the BICA Challenge: creating a real-life computational equivalent of the human mind.

Submissions of a purely philosophical nature are discouraged and will be redirected elsewhere.

Types of Articles

Original, full-length articles are considered that are complete and authoritative accounts of works which have special significance, general interest and which are presented clearly and concisely. Submission categories include research papers, letters, invited position papers and reviews

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The length limit for a full research paper is 8,000 words, which corresponds to about 15-20 journal pages, depending on the number of tables and figures. The length limit includes the title page, references, appendices and figure captions, but does not include the supplementary material. Shorter submissions are preferred, provided they satisfy requirements outlined below.

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[dataset] Oguro, M., Imahiro, S., Saito, S., Nakashizuka, T. (2015). *Mortality data for Japanese oak wilt disease and surrounding forest compositions*. Mendeley Data, v1. <https://doi.org/10.17632/xwj98nb39r.1>.

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