Cognitively-inspired Computing for Gerontechnology

A Special Issue of
Cognitive Computation

Background

Gerontechnology is an interdisciplinary field combining gerontology and technology. Sustainability of an ageing society depends upon our effectiveness in creating intelligent systems, coping with assistive technology and inclusive design, for innovative and independent living and social participation of older adults in good health, comfort and safety. Gerontechnology aims at matching systems to health, housing, mobility, communication, leisure and work of the elderly.

The development of these systems becomes a challenging activity requiring disciplines as different as artificial intelligence, human computer interaction, neurobiology, cognitive psychology and engineering to work together in order to provide solutions able to satisfy this growing demand of the society. The stakeholders must be able to create systems that are as intelligent as to detect falls or emotions, as usable as to be exploited by people with mobility problems, and as reliable and autonomous as to monitor health and mobility.

Therefore, this special issue focuses on all aspects of *cognitive agents*, including (but not limited to) *perception, action, affective and cognitive learning and memory, attention, decision making and control, social cognition, language processing and communication, reasoning, problem solving, and consciousness*, that face current practices and future trends to cover hot topics associated to Gerontechnology.

Topics covered

The SI on Cognitively-inspired Computing for Gerontechnology is dedicated to a cutting-edge research (Gerontechnoloy), its current practices and trends; and it links together topics related to neurobiology, cognitive psychology and artificial, not to mention human computer interaction and (computer, electrical and communication) engineering. The main topics faced by this SI are:

- Cognitively-inspired computing for assistive technologies and devices
- Cognitively-inspired computing for household accident detection
- Emotion / affect / mood recognition and regulation

- Personalized ambient adaptation
- Social / care cognitive robots and agents
- Cognitively-inspired computing for entertainment technologies for the older adult
- Cognitively-inspired computing for fitness and sports for the senior
- Intelligent telehealth, telemedicine and communication services
- Social networks for the elderly
- Lifelong learning for mental health

Requirements

To be considered, authors will need to clearly establish relevance of their paper to the scope of the Special Issue and the journal. Authors will be required to follow the Author's Guide for manuscript submission to Cognitive Computation (see http://www.springer.com/12559). The authors are requested to submit their manuscripts via the online submission manuscript system, available at http://www.editorialmanager.com/cogn/. During submission, authors should explicitly choose the title of the special issue in the Subject line.

Timeframe

Submissions Deadline: January 31st, 2015

Notification of acceptance: March 31st, 2015

Final Manuscripts Due: May 15th, 2015

Date of Publication: July 2015

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