1. Record Nr. UNINA9910136403003321

Autore	Vogt Paul
Titolo	How mobile robots can self-organise a vocabulary [[electronic resource] /] / Paul Vogt
Pubbl/distr/stampa	Language Science Press, 2015 Berlin, Germany : , : Language Science Press, , 2015 ©2015
ISBN	3-946234-01-1
Descrizione fisica	1 online resource (xii, 270 pages) : illustrations; digital, PDF file(s)
Collana	Computational Models of Language Evolution ; ; volume 2
Disciplina	402.85
Soggetti	Symbol grounding Language acquisition - Data processing Artificial intelligence
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Title from OAPEN webpage (viewed on 23 November 2017). Originally presented as the author's thesis (doctoral)--Vrije Universiteit Brussel, Belgium, 2000.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Preface --Acknowledgements --1. Introduction --2. The sensorimotor component --3. Language games --4. Experimental results --5. Varying methods and parameters --6. The optimal games --7. Discussion --Appendix A: Glossary --Appendix B: PDL code --Appendix C: Sensory data distribution --Appendix D: Lexicon and ontology --References --Indexes.
Sommario/riassunto	One of the hardest problems in science is the symbol grounding problem, a question that has intrigued philosophers and linguists for more than a century. With the rise of artificial intelligence, the question has become very actual, especially within the field of robotics. The problem is that an agent, be it a robot or a human, perceives the world in analogue signals. Yet humans have the ability to categorise the world in symbols that they, for instance, may use for language. This book presents a series of experiments in which two robots try to solve the symbol grounding problem. The experiments are based on the language game paradigm, and involve real mobile robots that are able to develop a grounded lexicon about the objects that they can detect in

		their world. Crucially, neither the lexicon nor the ontology of the robots has been preprogrammed, so the experiments demonstrate how a population of embodied language users can develop their own vocabularies from scratch.

2.	Record Nr.	UNINA9910132204203321
	Titolo	Application of nanotechnology in water research / / edited by Ajay Kumar Mishra
	Pubbl/distr/stampa	Hoboken, New Jersey ; ; Salem, Massachusetts : , : Scrivener Publishing : , : Wiley, , 2014 ©2014
	ISBN	1-118-93931-X 1-118-93929-8
	Descrizione fisica	1 online resource (549 p.)
	Classificazione	SCI013040
	Disciplina	628.1/64
	Soggetti	Water - Purification - Membrane filtration - Research Water - Purification - Materials Nanotechnology
	Lingua di pubblicazione	Inglese
	Formato	Materiale a stampa
	Livello bibliografico	Monografia
	Note generali	Description based upon print version of record.
	Nota di bibliografia	Includes bibliographical references at the end of each chapters and index.
	Nota di contenuto	Cover; Title Page; Copyright Page; Contents; Preface; Part 1: General; 1 Nanotechnology and Water: Ethical and Regulatory Considerations; 1.1 Introduction; 1.2 Ethics and Nanotechnology; 1.2.1 What Is Ethics?; 1.2.2 What Is an Ethical Issue?; 1.2.3 Basic Principles in Ethical Decision Making; 1.2.3.1 Utility; 1.2.3.2 Fairness; 1.2.3.3 Justice; 1.2.3.4 Proper Human Excellences; 1.2.3.5 Beneficence; 1.2.4 Significance of Nanotechnology in the Water Sector; 1.2.5 Benefits of Nanotechnology; 1.2.6 Ethical Issues and Concerns Related to Application of Nanotechnology in the Water Sector 1.2.6.1 Issues of Safety, Toxicity and Environmental Impact1.2.6.2 Distributive Justice Issues; 1.2.6.3 Intellectual Property Rights Issues; 1.2.6.4 Public Involvement and Consumer Awareness; 1.3 Legal and

Regulatory Issues and Concerns Related to the Application of Nanotechnology in the Water Sector; 1.3.1 The EC's Code of Conduct for Responsible Nanoscience and Nanotechnology Research and Other Initiatives; 1.3.2 The Precautionary Principle; 1.4 Nanotechnology, Water and Human Health Research; 1.5 Conclusion; References
2 Nanoparticles Released into Water Systems from Nanoproducts and Structural Nanocomposites Applications2.1 Introduction; 2.2 Case Study on Polyurethane/Organically-Modified Montmorillonite (PU/OMMT) Nanofoam Nanoparticles in Water Suspension; 2.3 Methodology; 2.3.1 Material Synthesis of Nanophased Composites; 2.3.2 Drop-Weight Impact Test and Fracture Particle Extraction; 2.3.3 Characterization; 2.3.3.1 Scanning Electron Microscopy (SEM); 2.3.3.2 Transmission Electron Microscopy (TEM); 2.3.3.3 X-ray Diffraction; 2.3.3.4 Dynamic Light Scattering (DLS); 2.4 Results and Discussion 2.4.1 Synthesized Nanocomposites2.4.2 Generated Nanocomposite Dust from Impact Test; 2.4.2.1 Morphology Studies; 2.4.2.2 Size Effect; 2.5 Conclusion; Acknowledgement; References; Part 2: Remediation; 3 Prospects for Immobilization of Microbial Sorbents on Carbon Nanotubes for Biosorption: Bioremediation of Heavy Metals Polluted Water; 3.1 Dispersion of Metal Pollutants in Water Sources; 3.2 Removal of Metal by Conventional Methods; 3.3 Microbial Sorbents for Removal of Toxic Heavy Metals from Water; 3.3.1 Biouptake of Metal; 3.3.2 Factors Affecting Microbial Adsorption Capacity
3.3.2.1 Cell Age3.3.2.2 Physicochemical Effect; 3.3.2.3 Cell Biomass; 3.3.2.4 Initial Concentration of Metal; 3.3.2.5 Metals Competition; 3.3.2.6 Exposure Time; 3.3.3 Isothermic and Kinetic Equilibrium of Biosorption; 3.3.4 Drawbacks Due to Inhibition; 3.3.5 Metal Tolerance Mechanisms of Microbial Sorbents; 3.3.6 Pretreatment of Microbial Sorbent; 3.4 Immobilization of Microbial Sorbents on CNTs; 3.4.1 Possible Interaction between Microorganisms and CNTs; 3.4.1.1 Microbial Cell Membranes and Functional Groups; 3.4.1.2 Characteristics of CNTs
3.4.2 Adsorption of Microorganisms on CNTs for Bioremediation

Sommario/riassunto

At the nano size materials often take on unique and sometimes unexpected properties which results in materials being 'tuned' to build faster, lighter, stronger and more efficient devices and systems, as well as new classes of materials. In the water research, nanotechnology is applied to develop more cost-effective and high-performance water treatment systems as well as instant and continuous ways to monitor water quality as well. Nanotechnology in water applications potentially impacts on treatment, remediation, sensing, and pollution prevention. Nanotechnology for water treatment an