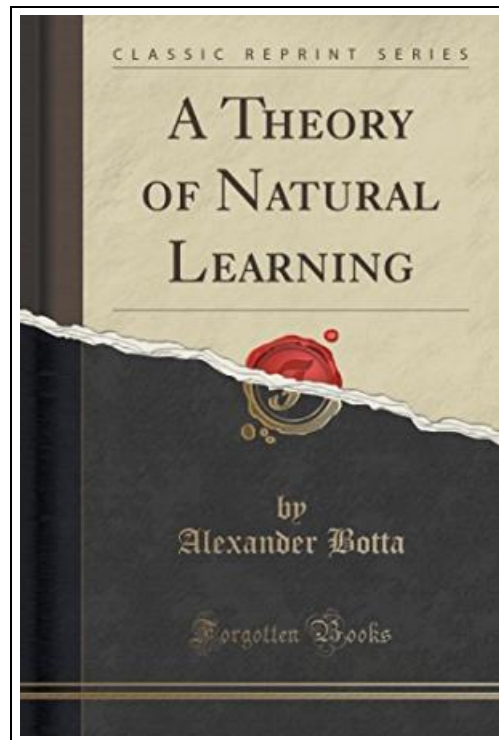# A Theory of Natural Learning (Classic Reprint)

Filesize: 1.2 MB

Reviews

This publication is wonderful. It can be rally fascinating throgh reading period of time. You are going to like the way the writer create this publication.

(Mrs. Piper Jacobi)

A THEORY OF NATURAL LEARNING (CLASSIC REPRINT)

Forgotten Books, United States, 2015. Paperback. Book Condition: New. 229 x 152 mm. Language: English . Brand New Book ***** Print on Demand *****.Excerpt from A Theory of Natural Learning Unsupervised learning is based on capturing regularities in data. We formalize the vague notion of regularity using the concept of algorithmic information (Solomonoff, Chaitin, Koppel). We present a theory on how regularities are induced and accumulated. A generative model captures a regularity if it achieves compression. A basic regularity is a building block for hierarchical structures. We prove that a basic regularity may be identified as a local maximum in compressibility as a function of model complexity. Stepwise induction is a polynomial time approach to structures whose basic components have bound complexity. Agents engage in active learning. The regularities of their sensory-motor streams are similar to Piaget s schemes and constituents of an induced ontology. We illustrate these ideas on three microworlds. First are Moore automata. State representations are constructed incrementally from the results of tests performed when in that state, and from sequences of outputs perceived on the way to that state. The second world contains loosely coupled geometric objects. They are basic regularities identifiable by stepwise induction. In the third world agent has an elaborate eye and can move objects on a tiled surface. Statistical correlations between sets of stimuli are induced, then models are constructed to generate instances of new correlations from already known ones. Algorithmic information theory allows a unified perspective on many areas of learning research. We define analysis as the separation of the novelty in data from the already known. We present explanation based generalization as a well formalized instance of analysis and constructive induction is an ill defineded instance. We show EBG to specialize a theory through positive examples, and prove it a...

Read A Theory of Natural Learning (Classic Reprint) Online
Download PDF A Theory of Natural Learning (Classic Reprint)

Other Books

The Sunday Kindergarten Game Gift and Story: A Manual for Use in the Sunday, Schools and in the Home (Classic Reprint)

Forgotten Books, United States, 2015. Paperback. Book Condition: New. 229 x 152 mm. Language: English . Brand New Book ***** Print on Demand *****.Excerpt from The Sunday Kindergarten Game Gift and Story: A Manual for...

Download Book

»

The Voyagers Series - Europe: A New Multi-Media Adventure Book 1

Strength Through Communications, United States, 2011. Paperback. Book Condition: New. 229 x 152 mm. Language: English . Brand New Book ***** Print on Demand *****.The Voyagers Series is a new multi-media, multi-disciplinary approach to teaching...

Download Book

»

History of the Town of Sutton Massachusetts from 1704 to 1876

Createspace, United States, 2015. Paperback. Book Condition: New. annotated edition. 229 x 152 mm. Language: English . Brand New Book ***** Print on Demand *****.This version of the History of the Town of Sutton Massachusetts...

Download Book

»

Crochet: Learn How to Make Money with Crochet and Create 10 Most Popular Crochet Patterns for Sale: (Learn to Read Crochet Patterns, Charts, and Graphs, Beginner s Crochet Guide with Pictures)

Createspace, United States, 2015. Paperback. Book Condition: New. 229 x 152 mm. Language: English . Brand New Book ***** Print on Demand *****.Getting Your FREE Bonus Download this book, read it to the end and...

Download Book

»

How to Make a Free Website for Kids

Createspace, United States, 2015. Paperback. Book Condition: New. 229 x 152 mm. Language: English . Brand New Book ***** Print on Demand *****.Table of Contents Preface Chapter # 1: Benefits of Having a Website Chapter...

Download Book

»