Comments on Reproducible AI

Ashok K. Goel

January 2019
AI Algorithms for Raven’s Progressive Matrices Test

Affine, Fractal
Reproducible because algorithmic specification, standardized dataset.
Interactive Technology for Learning about Scientific Modeling

Middle School Science, College-level Biology

Difficulty to reproduce because of 3rd party data, various populations
One shot interactive robot learning from demonstration

Case-Based Reasoning
Difficult to reproduce because of vast human variation
AI Magazine

Mostly expository articles
(not technical papers)

Fall 2018
Fall 2018 issue

• **Learning from Artificial Intelligence’s Previous Awakenings: The History of Expert Systems**
  • David C. Brock

• **AI Rebel Agents**
  • Alexandra Coman, David W. Aha

• **Year One of the IBM Watson AI XPRIZE: Case Studies in “AI for Good”**
  • Sean McGregor, Amir Banifatemi

• **Alexa Prize — State of the Art in Conversational AI**
  • Chandra Khatri, Anu Venkatesh, Behnam Hedayatnia, Raefer Gabriel, Ashwin Ram, Rohit Prasad

• **On Reproducible AI: Towards Reproducible Research, Open Science, and Digital Scholarship in AI Publications**
  • Odd Erik Gundersen, Yolanda Gil, David W. Aha

• **Integrating Artificial and Human Intelligence in Complex, Sensitive Problem Domains: Experiences from Mental Health**
  • Munmum De Choudhury, Emre Kiciman
• **Fall 2018**

• *On Reproducible AI: Towards Reproducible Research, Open Science, and Digital Scholarship in AI Publications*  
  • Odd Erik Gundersen, Yolanda Gil, David W. Aha

• **Likely Fall 2019**

• *Standing on the Feet of Giants - Reproducibility in AI*  
  • Odd Erik Gundersen