EDITORIAL

AI K–12 Education Service

Martin Kandlhofer[1] · Gerald Steinbauer[2]

Abstract
This article provides an overview of relevant scientific venues, journals, projects and resources in the context of AI K-12 education.

1 Introduction

Artificial Intelligence (AI) has gained significant attention from various sectors and fields and became a major topic of discussion. Teaching these AI skills has traditionally been done at the university level. In recent years several initiatives have emerged which pursue the mission of AI education at the K-12 level. The selection of relevant scientific venues, journals, projects and resources presented in this article should be seen as a suggestion and starting point for interested readers. Since the field is rapidly evolving, no claim is made for completeness.

2 Scientific Journals, Conferences, and Symposia

– Symposium on Educational Advances in Artificial Intelligence (EAAI) (annual symposium collocated with the AAAI Conference on Artificial Intelligence) [1]
– International Conference on Artificial Intelligence in Education (AIED) [2, 3]
– AAAI Spring and Fall Symposia (including tracks for AI K-12 education) [4]
– Technical Symposium on Computer Science Education [5]

✉ Martin Kandlhofer
   kandlhofer@ocg.at

   Gerald Steinbauer
   steinbauer@ist.tugraz.at

1 Austrian Computer Society, Vienna, Austria

2 Graz University of Technology, Graz, Austria

– International Conference on Frontiers in Education (FIE) (educational innovations and computing education including AI) [6]
– International Joint Conference on Artificial Intelligence (IJCAI) (annual conference where certain tracks and workshops also deal with AI K-12 education) [7, 8]
– International Journal of Artificial Intelligence in Education [9]
– International Journal Computers & Education: Artificial Intelligence [10]
– German Journal of Artificial Intelligence (special issue on Education in Artificial Intelligence K-12) [11]

3 Initiatives, Projects and Resources

– Artificial Intelligence for K-12 initiative (AI4K12) [12]
– Regular updated list of AI K-12 resources by the AI4K12 initiative [13]
– Elements of AI online course [14]
– ReadyAI artificial intelligence education for K-12 [15]
– AI4ALL Open Learning—AI curriculum and teacher resources [16]
– MIT AI Learning Units [17]
– Technovation AI Family Challenge initiative [18]
– Massive open online course (MOOC): AI Basics for Schools [19]
– Udacity course on essential AI concepts [20]
– European Driving License for Robots and Intelligent Systems [21]
– Collection of AI Experiments by Google [22]
– Teachable Machine [23]
– Machine Learning for Kids [24]
– KI macht Schule [25]

4 Further Reading

– Artificial Intelligence: A Modern Approach [26]
– The Quest for Artificial Intelligence: A History of Ideas and Achievements [27]
– Teaching AI: Exploring New Frontiers for Learning [28]
– What to Think About Machines That Think [29]
– Future Frontiers: Education for an AI World [30]

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