AI Education: Open-Access Educational Resources on AI

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Introduction

Open-access AI educational resources are vital to the quality of the AI education we offer. Avoiding the reinvention of wheels is especially important to us because of the special challenges of AI Education. AI could be said to be "the really interesting miscellaneous pile of Computer Science". While "artificial" is well-understood to encompass engineered artifacts, "intelligence" could be said to encompass any sufficiently difficult problem as would require an intelligent approach and yet does not fall neatly into established Computer Science subdisciplines. Thus AI consists of so many diverse topics that we would be hard-pressed to individually create quality learning experiences for each topic from scratch.

In this column, we focus on a few online resources that we would recommend to AI Educators looking to find good starting points for course development.

AITopics.org

AITopics.org (*AITopics.org*, 2016) is AAAI's portal for sharing quality AI resources and information concerning research and researchers. Covering almost 200 AI topics, it is intended to be a starting reference place for AI instructors and students from high school through first-year graduate school. Its virtual archive of classic publications collects influential works from AI's history. A video collection links to hundreds of AI-related videos. However, the core offering of the site is the topic information categorized as good starting places, general readings, organizations, educational resources, classic articles and books, news, hardware and software, videos, podcasts, etc.

Consider not only browsing this site, but contributing valuable resources to our community via this site as well.

Educational Advances in Artificial Intelligence

Since 2010, the Educational Advances in Artificial Intelligence (EAAI) Symposium (*Educational Advances in Artificial Intelligence*, 2016) has been the premier venue for the sharing of AI educational innovations, research, and teaching resources. Collocated with the AAAI conference, EAAI is a two-day symposium featuring a technical paper track, a Model AI Assignments track (see below) modeled after SIGCSE's Nifty Assignments track, invited speakers, and break-out sessions that have featured mentorship of new faculty, curricular development brainstorming, and educational robotics demonstrations.

This venue provides an excellent opportunity to exchange experiences and resources with many dedicated AI Educators. Consider submitting your best AI educational work to the symposium, and read what others have been doing to advance AI education in the EAAI section of the AAAI proceedings.

Model AI Assignments

The goal of the Model AI Assignments (MAIA) session of EAAI is to gather and disseminate the best assignment designs of the Artificial Intelligence (AI) Education community. Recognizing that assignments form the core of student learning experience, MAIA invites AI educators to submit assignment materials that exemplify an approach to teaching AI topics at all levels. These assignments are then double-blind peer reviewed, and accepted assignments are presented at EAAI and shared via our repository (Neller, 2016) which has become the largest peer-reviewed AI assignment repository to date.

This repository offers excellent ready-made and adaptable assignments to further high-quality AI learning experiences. Consider the current MAIA offerings and what you might share with others through MAIA in the future.

Your Favorite Resources?

These are but a few good starting points for AI instructors to avoid reinventing wheels and instead discover many finely-crafted resources online. If there are other sites you would add to this list of starting points, we invite you to register with our wiki and add them to our collection at http://cs.gettysburg.edu/ai-matters/index.php/Resources.

References

AITopics.org. (2016). http://aitopics.org. (Accessed: 2016-11-14)

Educational advances in artificial intelligence. (2016). http://eaai.stanford.edu. (Accessed: 2016-11-14)

Neller, T. (2016). *Model AI assignments.* http://modelai.gettysburg.edu. (Accessed: 2016-11-14)

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