AI Education in iSchools: Reshaping the Curricula for an Equitable and Inclusive Information Landscape

Type: Panel

Dania Bilal, University of Tennessee, Knoxville, TN 37996, USA. Panel Moderator. 
dania@utk.edu
Clara M. Chu, University of Illinois at Urbana-Champaign, Urbana, IL 61801, USA cmchu@illinois.edu
Soo Young Rieh, University of Texas at Austin, Austin, TX 78701, USA rieh@ischool.utexas.edu

Abstract

While AI is becoming commonplace in higher education, industry, and other sectors; likewise, AI needs to be integrated into the iSchools’ curricula. This panel aims to provide a forum to discuss AI education within iSchools’ graduate programs from multidisciplinary perspectives. The panelists will provide an overview of the IMLS-funded IDEA Institute on AI (http://idea.infosci.utk.edu), discuss the trends of AI course offerings in iSchools, and address issues and challenges. They will also engage attendees in group discussions about core knowledge and skills needed for information professionals, ways to integrate equity, diversity, inclusion, and accessibility into AI-related curricula, and future directions of AI education while incorporating technical, social, conceptual, and practical aspects. By bringing together graduate students, educators, researchers, and practitioners, this panel fosters a strong iSchool community on AI education and future collaborations.

1. Introduction

Artificial Intelligence (AI) is reshaping the information landscape and changing the way information is processed, accessed, retrieved, produced, delivered, and managed. Today, AI is one of the most disruptive and transformative emerging technologies, which will continue to impact the economy and society as a whole in the next decade. AI is an integral part of the graduate program curriculum in iSchools to prepare students to thrive for future career pathways. Although AI has broad societal and ethical implications across higher education, the industry, and library and information environments, AI topics offered in most iSchools tend to be technically-focused on educating future data scientists, data analysts, and machine learning/AI engineers. It is time to have broader discussions on AI education in iSchools for graduate students who pursue a variety of careers as information professionals, beyond developing AI-powered technologies.

In this interactive session, Dania Bilal, Clara M. Chu, and Soo Young Rieh, who were awarded a grant from the Institute of Museum and Library Services (IMLS) (RE-246419-OLS-20) to develop the IDEA (Innovation, Disruption, Enquiry, Access) Institute on Artificial Intelligence (AI), will provide an overview of the IDEA Institute on AI, share success stories, lessons learned, outcomes, and challenges faced in developing, implementing, and offering the 2021 Institute at the University of Tennessee during the COVID-19 pandemic. The IDEA Institute on AI is a two-year project designed to “build and enhance the knowledge and skills of current and
future library and information professionals in AI.” (http://idea.infosci.utk.edu In collaboration with four Advisory Board members and instructors, and a group of interdisciplinary speakers with varied expertise in AI, the 2021 IDEA Institute has graduated the first cohort of seventeen IDEA Fellows, who represent diverse socio-demographic backgrounds, types of library and information positions, and capacities of implementing AI in their workplaces. The 2021 IDEA Institute also contributed to building an online AI community of practice where Institute participants continue to share AI project ideas and implementation plans, as well as seek advice from the Institute team (PIs, Advisory Board members and instructors). The second cohort of IDEA Fellows is being recruited to participate in the 2022 Institute.

The panelists will also discuss the trends of AI education offered in iSchools based on research findings, highlight critical gaps, and address issues and challenges. They will engage in discussions with the attendees to explore and discuss how to integrate a broad range of AI topics including ethics, social impact, algorithmic bias, literacies, applications, and solutions into iSchool graduate program curricula while embracing the value of equity, diversity, inclusion, and accessibility (EDIA).

2. Purpose and Intended Audience

This interactive panel session is intended to expand the AI education and practice community by sparking the interest and contribution of students, educators, researchers, and practitioners in AI education from multiple disciplinary perspectives. Additionally, the panelists will share the findings from a study of iSchools’ AI-related curricula, addressing the trends of AI curricula in master’s programs, identifying needs for building new or strengthening existing AI-related curricula to prepare graduate students for information careers, and gathering input on scaling up the IDEA Institute on AI continuing education program.

3. Proposed Format

This interactive session will consist of short presentations by each panelist about AI education, including highlights of the IDEA Institute on AI and analysis of iSchool curricula. Next, the attendees will be divided into breakout groups to engage in one of the topics of their selection (see group breakout session) and later participate in focused conversations about AI educational topics with the panelists. Lastly, the groups will present the outcomes of their topic discussions and participate in a plenary discussion, before the wrap-up, that will include next steps.

Session Introduction (5 minutes)

The moderator will introduce the panelists and present the panel topic and format.

Panel Discussion (25 minutes)

Each panelist will have 8-9 minutes to discuss AI education in iSchools, including the trends of AI curricula, gaps in curricula, and future directions for building human-centered and value-added curricula in AI education. This interactive session will provide a forum, conducive to learning and sharing ideas, as well as relationship-building through presentations, focused conversations, and plenary discussion.

Group Breakout Sessions (30 minutes)

Attendees will be divided into four groups to brainstorm and report on one of the topics below:
What core knowledge and skills are needed for future information professionals working in AI-driven environments? Do these differ by professional information environments?

What general and specialized knowledge should faculty have to build new or strengthen existing iSchool curricula in AI?

What aspects of equity, diversity, inclusion, and accessibility (EDIA) in AI are needed to integrate into iSchools’ curricula?

What future directions should iSchools take to incorporate technical, social, conceptual, and practical aspects of AI in their curricula?

**Plenary Discussion (20 minutes)**

Each group will choose a spokesperson to present the outcomes of their topic discussions to the larger group of attendees.

**Wrap-up and Next Steps (10 minutes)**

The moderator will summarize the discussions. The panelists will discuss the next steps.

**4. Engagement**

This panel will encourage interaction and collaboration among attendees. With the breakout sessions, we expect to identify and share current course offerings and future directions for developing AI-related curricula in iSchools from multidisciplinary perspectives. By discussing one of the selected topics in each breakout session, attendees will have the opportunity to engage in group discussions that are of most interest to them, and share their teaching and learning experiences.

**5. Goals and Outcomes**

The goal is to explore collectively how to craft AI education within iSchool graduate programs by recognizing and valuing conceptual, practical, social, and technical aspects of AI. The panel provides the context to discuss critically how to integrate equity, diversity, inclusion, and accessibility (EDIA) in AI into iSchool curricula. By bringing together graduate students, educators, researchers, and practitioners, we intend to foster a strong community on AI education and enable potential future collaborations. We plan to expand this interactive panel to a workshop in future iConference events to broaden the themes and audiences identified based on presentations and discussions.

**6. Relevance to the iConference**

The theme of this panel session focuses on AI education in iSchools, which is relevant to the 2022 iConference theme, *Information for a Better World: Shaping the Global Future*. First, it introduces an innovative curriculum and training created to educate information professionals in AI and machine learning where equity, diversity, inclusion, and accessibility (EDIA) were the key drivers that guided the recruitment and selection of participants in the IDEA Institute on AI and content of the curriculum. Second, as AI will shape the future of information management and services, iSchool graduates need to understand and develop and/or implement AI solutions. Thus, their knowledge of and competencies in addressing the social, conceptual, technical, and practical aspects of AI will contribute to AI education for an equitable and inclusive information landscape. Third, the interactive panel session is of relevance to the iSchool community because iSchools vary in their faculty expertise and course offerings on AI, and this session allows them
to share their experiences, as well as begin to design or consider a common basic curriculum and an optimized/enhanced curriculum that could lead to a specialization when deeper and broader expertise resides at an iSchool. The topic of this panel session is the first time AI education in iSchools is addressed at an iConference, contributing to shaping information for a better world. The attendees will not only be able to learn from our case study (IDEA Institute on AI) but also collectively shape the iSchools’ AI curricula.

**Duration:** 1.5 hours.