Resources for directed learning about AI

The purpose of this guide: Provides links to readings, video, audio, and infographics to encourage directed learning about generative AI in the context of higher ed. The guide was published on July 26, 2023 and will accumulate based on feedback from faculty and other readers at Lehigh. If you'd like to see something added to this page you can edit the page yourself or make a comment.

*Please comment if you'd like to have your Lehigh syllabus statement on AI posted to this guide.

1

Sample syllabus statements

LU Syllabus Template, Lehigh’s Center for Innovation in Teaching and Learning, updated with a section on Generative AI for Fall 2023.

Boris Steipe et al., The Sentient Syllabus Project: Charting a Course for the Academy in an Era of Synthesized Thought, founded December 2022. The project's website, print materials, and Substack includes guides for understanding AI issues, sample text for a syllabus, and course activities involving AI.

"Classroom Policies for AI Generative Tools," a crowdsourced Google Doc organized by Lance Eaton, Director of Digital Pedagogy at College Unbound, Providence, RI.

Tracy Mendolia-Moore, Manager of 3D Educational Technology Innovations at the Center for Excellence in Teaching & Learning, Western University of Health Sciences, "University Policies on Generative AI." A collection of university policies and websites.


2

Ideas for class activities

Case Study PDFs from The Princeton Dialogues on AI and Ethics. "A set of fictional case studies that are designed to prompt reflection and discussion about issues at the intersection of AI and Ethics."


A People's Guide to AI, Mimi Onuoha and Diana Nucera (aka Mother Cyborg). A zine published by Allied Media Projects in October 2018. With worksheets and questions to get a classroom thinking and talking with one another.

AI Starter from the AI Pedagogy Project, Harvard and FU Berlin's metaLAB. Including a list of class assignment involving AI.

Resources from We and AI, featuring "Inclusive ways of helping people access relevant information about AI." Including a Race and AI Toolkit, an AI Quiz, and podcast episodes.


Learn with AI toolkit, a project of the University of Maine's Center for Innovation in Teaching and Learning and UMaine's New Media major.

Boris Steipe et al., The Sentient Syllabus Project: Charting a Course for the Academy in an Era of Synthesized Thought, founded December 2022. The project's website includes course activities involving AI.

Have students complete a learning course in Datacamp. Examples include "Introduction to ChatGPT," "Understanding Artificial Intelligence," "Large Language Models (LLMs) Concepts," and "Generative AI Concepts." You have access to courses in Datacamp as a Lehigh employee. From the Datacamp landing page, you DO NOT need to "Create Your Free Account," even if this is the first time that you've accessed the platform. Instead, go straight to "Sign in" at the top right and type in your full Lehigh email email address. The system will bounce you to Lehigh's SSO and you'll be ready to learn!

Use an infographic to prompt classroom conversation. Examples from the European Network for Academic Integrity, an EDUCAUSE Review on "Artificial Intelligence: Where Are We Now?", and the 2023 AI Index Report from Human-Centered Artificial Intelligence at Stanford University can be found in this Lehigh Confluence guide.
3 Multimedia

Dylan Doyle-Burke and Jessie J. Smith, Radical AI podcast, aired from March 2020–August 2023.

*Coded Bias*, a Shalini Kantayya film (2020), streaming on Netflix. "This documentary investigates the bias in algorithms after M.I.T. Media Lab researcher Joy Buolamwini uncovered flaws in facial recognition technology."

4 The language of AI and AI primers. Start here if you are beginning your learning!

*AI Starter from the AI Pedagogy Project*, Harvard and FU Berlin's metaLAB. "What is AI?" "The Basics of Generative AI: Large Language Models." "Incorporating AI Into Your Teaching." "Glossary"


Glossary of AI-related terms developed by Future Tools.


Generative AI Overview from Lehigh's Center for Innovation in Teaching and Learning, published August 23, 2023.


Will Thompson, "What We Know About LLMs (Primer)," published July 23, 2023.

5 A landscape of AI-powered tools and AI news aggregators

A filtered search developed by Future Tools for third-party, AI-powered apps, both free and premium.

There's An AI for That, A searchable AI-powered tools aggregator.

A news reel created by Future Tools that provides links to recent AI news.

"AI, algorithmic, and automation incidents and controversies," AIAAIC (AI, Algorithmic, and Automation Incidents and Controversies). Also the entire repository.

*The New York Times* spotlight series on AI.

6 Early data

Eugenie Park and Risa Gelles-Watnick, "Most Americans haven't used ChatGPT; few think it will have a major impact on their job," *Pew Research Center*, August 28, 2023.

Mubin Ul Haque, et al., "I think this is the most disruptive technology": Exploring Sentiments of ChatGPT Early Adopters using Twitter Data," preprint, published December 12, 2022.


See the "Top Ten Takeaways" and "Report Highlights" within the first 20 pages. Chapter 5 focuses on education.

"100 Year Study on AI," Stanford University, September 2021.

"The One Hundred Year Study of Artificial Intelligence (AI100) is a longitudinal study to study and anticipate how the effects of artificial intelligence will ripple through every aspect of how people work, live and play. It is administered out of Stanford University and managed by a Standing Committee of AI experts from institutions around the world, chaired by Vincent Conitzer at Carnegie Mellon University."

"Qualitative content analysis of four major social media platforms (Twitter, Reddit, YouTube, and LinkedIn) to explore the user experience (UX) and perspectives of early adopters toward ChatGPT—an AI Chatbot technology-in various education sectors."


7

Student voices


Student-generated webinars on AI, University of Kent, United Kingdom. Published April 27, 2023 and last updated July 31, 2023.

"The Implications of Generative AI for Teaching and Learning at Lehigh," recording of a panel discussion featuring Lehigh students, faculty, and staff offered by The Center for Innovation in Teaching and Learning on March 24, 2023.

Student poster presentations on AI from Dr. Greg Reihman's Philosophy and Technology course at Lehigh, Spring 2023.


Marieke Guy, coverage of a student "AI Assessment Hackathon" in June 2023, organized by a team of academic staff from the Faculty of Medical Sciences and the Institute of Education (IOE), University College London, London.


8

Academic integrity and citational practice

Zoë Teel, Ting Wang, and Brady Lund, "ChatGPT conundrums: Probing plagiarism and parroting problems in higher education practices," Association of College & Research Libraries News 84, no. 6 (June 2023).

Weixin Liang, et al., "GPT detectors are biased against non-native English writers," Patterns 4, no. 7 (JULY 2023): 1-4.


Turnitin has an AI-generated text detector among its features. It can be added as a tool to your Lehigh Course Site (see: "AI Writing Detection Capabilities - Frequently Asked Questions").

Lehigh LibGuide on How to Cite ChatGPT & Similar AI Tools.

Lehigh LibGuide on Acceptable Use of AI Tools at Lehigh.

Timothy McAdoo, "How to cite ChatGPT," APA Style Blog, April 7, 2023.

"How do I cite generative AI in MLA style?," MLA Style Center, March 17, 2023.

"Citation, Documentation of Sources: 'How do you recommend citing content developed or generated by artificial intelligence, such as ChatGPT?,'" The Chicago Manual of Style Online, March 7, 2023.

9

Critical AI, ethics, and contributions from the humanities

A list of topics that intersect with AI/ML/LLMs is provided by NYU’s Institute for Public Knowledge in the form of their event series "Co-Opting AI: Public Conversations About Design, Inequality, and Technology"
Introductions to Critical AI

Rita Raley and Jennifer Rhee, "Critical AI: A Field in Formation," American Literature 95, no. 2 (June 2023): 185-204.


Brief histories of AI


Labor


Laura Preston, "HUMAN_FALLBACK," n+1 44 (Winter 2023). The story of a human operator who intervenes when Brenda, an AI assistant who answers questions about apartment listings, reaches its limit.

Josh Dzieza, "AI Is a Lot of Work," The Verge and New York Magazine, June 20, 2023. An investigation into the labor conditions of the people who sort and label (annotate) the data that AI is trained on.


Policing, surveillance, privacy, safety, and security


Politics and misinformation

"President Zelensky deepfake surrender," AIAAIC (AI, Algorithmic, and Automation Incidents and Controversies), March 2022.


Gender, racial, and ethnic bias


Hadas Kotek (@HadasKotek), "#ChatGPT doubles down on gender stereotypes even when they don't make sense in context," X, April 18, 2023, 6:29 PM.

Margaret Mitchell (@mmitchell_ai), "I replicated this (my screenshot below). Really great example of gender bias, for those of you who need a canonical example to make the point," X, April 23, 2023, 8:11 AM.


Carmen Drahl, "AI was asked to create images of Black African docs treating white kids. How'd it go?," NPR, published October 6, 2023.

Intellectual property and copyright


Environmental impacts


Legal implications and policy


"Making AI work for the American people," AI.gov.

"National Artificial Intelligence Research and Development Strategic Plan 2023 Update," A report by the Select Committee on Artificial Intelligence of the National Science and Technology Council, published May 2023.


10

Skill-building within AI

"Learn How to Work With AI" in Datacamp.

You have access to courses in Datacamp as a Lehigh employee. From the Datacamp landing page, you DO NOT need to "Create Your Free Account," even if this is the first time that you've accessed the platform. Instead, go straight to "Sign in" at the top right and type in your full Lehigh email email address. The system will bounce you to Lehigh's SSO and you'll be ready to learn! (See the instructional video, below.)

Your browser does not support the HTML5 video element

"Empower educators to explore potential of artificial intelligence," a module offered by Microsoft. "Navigate AI in education by looking at essential AI concepts, techniques, and tools, highlighting practical applications. AI can support personalized learning, automate daily tasks, and provide insights for data-driven decision making."

Video courses related to generative AI on LinkedIn Learning (here are Lehigh-specific instructions for how to activate your LinkedIn Learning account). Introductory courses include: "What Is Generative AI?" and "Introduction to Prompt Engineering for Generative AI."

AI-related content from Gartner. A research and advisory firm dedicated to information technology that also tracks industry news, research reports, and business and market analysis.
Prompt engineering


Ronnie Sheer, LinkedIn Learning, "Introduction to Prompt Engineering for Generative AI." Released March 15, 2023.

Resources related to prompt engineering in Datacamp, including "Introduction to ChatGPT" (Course) and "ChatGPT Prompt Engineering for Developers" (Course).

12

AI and writing


13

Non-exhaustive catalog of Lehigh-specific programming

Winter/Spring 2024

Spring Kickoff of Lehigh's AI Community of Practice. January 11th, 2024, part of the CITL Winter Workshop.

Summer/Fall 2023

November: "Critical (and impractical) AI: For decision makers amid a hype cycle." Interactive presentation by Dr. Justin Greenlee for The Management Club, College of Business, Lehigh University.


October: Artificial Intelligence Community of Practice, sponsored by the Center for Innovation in Teaching and Learning (CITL) at Lehigh. Launched 10/30/2023.


August: Slide deck from a hands-on demonstration of GenAI tools offered for Lehigh faculty by staff in the Center for Innovation in Teaching and Learning. Event on August 22, 2023.

August: Generative AI Overview from Lehigh's Center for Innovation in Teaching and Learning. Published 8/23/23.

June: "Generative Artificial Intelligence (AI)," this Lehigh Confluence guide is a starting point for learning more about generative AI, ChatGPT, and answering some FAQs. Published 6/16/23.

June: "Resources for directed learning about AI." Lehigh Confluence guide. Published 6/26/23.

Winter/Spring 2023

April: "The Impact of AI on Universities and Students," a podcast episode recorded by Lehigh's College of Business iLLUminate podcast on April 26, 2023. Featuring Dr. Greg Reihman, Lehigh's Vice Provost for Library and Technology Services, and Dr. Catherine Ridings, an associate professor in the College of Business' Department of Decision and Technology Analytics. Read the full transcript of their conversation with Jack Croft.

April: Recording of a morning conversation on Generative AI from the 2023 CITL Symposium on Teaching and Learning on April 11, 2023, featuring Social Sciences Librarian Elizabeth Miller, Dr. Larry Snyder, Dr. Suzanne Edwards, Dr. Greg Skutches, and Dr. Greg Reihman.


November 2022: Release of ChatGPT

14

Authored by Lehigh faculty


ges 8, no. 4 (2023): 1-16.

Beibei Dong (Professor of Marketing, Lehigh U.), Mengzhou Zhuang, Eric (Er) Fang (Professor of Marketing, Lehigh U.), and Minxue Huang, "Tales of Two Channels: Digital Advertising Performance Between AI Recommendation and User Subscription Channels," Journal of Marketing: 1-22.

Zhiling Yan (Graduate student in computer science, Lehigh U.), Kai Zhang (Graduate student in computer science, Lehigh U.), Rong Zhou (Graduate student in computer science, Lehigh U.), Liefang He (Faculty in Computer Science and Engineering, Lehigh U.), Xiang Li, and Lichao Sun (Faculty in Computer Science and Engineering, Lehigh U.), "Multimodal ChatGPT for Medical Applications: an Experimental Study of GPT-4V" (2023).

Eric P.S. Baumer's Google Scholar page and personal website. Dr. Baumer's Lehigh profile page.

Public GitHub repository for materials from "Algorithms and Social Justice," a class taught by Profs. Larry Snyder (ISE) and Suzanne Edwards (English, WGSS) at Lehigh University. This repo is from the fall semester, 2022. Dr. Snyder's Lehigh profile page. Dr. Edwards' Lehigh profile page.

Greg Surovcik, Visiting Lecturer in the Department of Decision and Technology Analytics, designed the underlying AI-based algorithms for Spark Moments and brought the product to market.

Brian Chen's publication page. Dr. Chen's Lehigh profile page.


Yu Yang, Working on a project involving AI-powered traffic signs.

Florence San Martin, Interviewed by CNN Chile on the intersection between AI and art, November 3, 2023.

15

Al in higher ed


Margaret Bearman, Juliana Ryan, and Rola Ajjawi, "Discourses of artificial intelligence in higher education: a critical literature review," Higher Education 86 (2023), 369-85. See Table 2 "Overview of the discourse analysis."


16

Advocacy groups: Related to truth, trust, democracy, civil rights, and civil liberties

Algorithmic Justice League, founded by Joy Buolamwini. "The Algorithmic Justice League is an organization that combines art and research to illuminate the social implications and harms of artificial intelligence."

The AI Now Institute. Produces diagnosis and actionable policy research on artificial intelligence.

*We and AI*, devoted to finding "inclusive ways of helping people access relevant information about AI."

*Distributed AI Research Institute*. "We are an interdisciplinary and globally distributed AI research institute rooted in the belief that AI is not inevitable, its harms are preventable, and when its production and deployment include diverse perspectives and deliberate processes it can be beneficial. Our research reflects our lived experiences and centers our communities."

*Data & Society*. "Data & Society studies the social implications of data-centric technologies, automation, and AI. Through empirical research and active engagement, our work illuminates the values and decisions that drive these systems — and shows why they must be grounded in equity and human dignity.

*AIxDESIGN*. "Reaching beyond big tech’s algorithmic imaginaries to ones that align with ideologies of agency & care, we do so through community-based research, developing design tools, hosting programs & workshops, running experiments, deconstructing critical discourse, and publishing our learning in the open."

17

**Books and chapters on AI**


18

**E-books from the Harvard Business Review Press (full-text available via Lehigh Libraries)**


19

**Guides from our peers**

Quickstart Resources from the AI Pedagogy Project from Harvard and FU Berlin's metaLAB.

Carnegie Mellon University, Eberly Center for Teaching Excellence & Educational Innovation, "Generative AI Tools FAQ."
Duke University Learning Innovation, "AI and Teaching at Duke."


Micheael Coley, "Guidance on AI Detection and Why We're Disabling Turnitin's AI Detector," Vanderbilt University, August 16, 2023.