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Teaching Generative Artificial Intelligence Literacy

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ABSTRACT
To address the Annual Meeting theme, "Difficult Conversations: The Role of Information Science in the Age of Human-Centered Artificial Intelligence," this panel explores and demonstrates approaches to teaching generative artificial intelligence in and beyond the classroom. The panelists speak from diverse specializations, locations, and perspectives, bringing a wealth of experience. This session will conceptualize Gen AI literacy; consider its role in curricula interdisciplinarity, social, political, and ethical implications; and present pedagogical examples. Following the presentations, we will conclude with an interactive discussion on how to redesign and potentially rebrand curricula from lesson plans to whole programs.

KEYWORDS
Generative Artificial Intelligence literacy, curriculum development, social, political, and ethical implications

INTRODUCTION
Information Science and Technology schools have long been positioned at the forefront of information literacy. Library and Information Studies curricula were designed and enriched with different information literacies in mind, ranging from early literacy teaching to health and digital literacy. With the advent of Generative AI, we have seen shifts in how information, data, and technology should be accessed, processed, used, and evaluated to meet the needs of diverse users. At the World Economic Forum, Firth-Buttterfield et al. (2022) explained that the world cannot survive without universal AI literacy. More recently, in February 2025, the European Union AI Act established AI literacy requirements and practices. Leu et al. (2018) asserted that new technologies redefine and transform the previous literacies, which suggests that Gen AI literacy is a subset of information literacy overall and would build on our prior literacy-building practices. Information Science and Technology schools are experiencing a need to readjust, realign, and rebrand their information literacy curriculum by integrating Generative Artificial Intelligence literacy. This panel of information science teachers at various career stages tackles questions of what and how to teach AI literacies in our higher education settings.

Kelly (2009) identified four curriculum design methods: product, content, process, and praxis. The product is the outcome of the curriculum design, which is the student's performance. The content is the syllabus, the process is how best to carry out the activities with the curriculum, and the praxis focuses on how to apply it to real-world situations. These helps design the Gen AI literacy curriculum, which involves understanding the Information Science and Technology syllabus and the curriculum outcome. Pinski & Benlian (2024) also explained that Gen AI literacy could be addressed from different logical stages, that is, the learning stage, components stage (Ng et al., 2021), and the implications of Gen AI literacy (Pinski et al., 2023). It is essential to understand the learning stage where the Information Science and Technology curriculum should have the dynamics of Gen AI, how best to use the tools, and the level of usage of Gen AI tools in Information Science and Technology schools. This stage could be formally or informally taught in Information Science and Technology schools. Formal learning could be taught in different classrooms, while informal learning could be certifications, workshops, and seminars. Gen AI components in terms of the knowledge and skills needed. The last is the effects of Gen AI, which could have positive and negative implications, including societal and ethical implications. These include algorithmic bias, fairness, transparency, copyright infringement, and accountability. All these should be included in our curriculum. It is pertinent to inculcate Generative AI literacy into the Information Science and Technology curriculum to meet the present needs of our diverse students.

PANEL STRUCTURE
This 90-minute panel is designed to appeal to both beginners in teaching generative AI and those with expertise to contribute to the conversation. Following a brief introduction by the moderator (Greyson, 5 min), each of the panelists (Shah, Zhu, Yang, Ridenour, Ayinde) will explain their different areas of teaching Generative AI literacy (12 min each for 60 min total), covering ground from the highly conceptual to pragmatic considerations. Panelists will explain their conceptualization of Generative AI literacy, methods and applications of Generative AI literacy in and beyond the classroom, and lessons learned.

The presentations will be followed by a moderated interactive discussion (20 min) in which the audience will have the opportunity to contribute to the discussion and ask questions of the panelists before a brief (5 min) facilitated closing by the moderator.

PANELIST BIOS AND PRESENTATIONS

Panelists have been selected to represent a range of career stages, backgrounds, and teaching areas.

Chirag Shah: Conceptualization of Generative AI literacy

Chirag Shah is a Professor of Information and Computer Science at the University of Washington (UW) in Seattle. He is the Founding Director for InfoSeeking Lab and Founding Co-Director of the Center for Responsibility in AI Systems & Experiences (RAISE). His research focuses on building, auditing, and correcting intelligent information access systems. In addition to creating AI-driven information access systems that provide more personalized reactive and proactive recommendations, he is also focusing on making such systems transparent, fair, and free of biases. Shah is a Distinguished Member of ACM as well as ASIS&T and a Senior Member of IEEE. He has published nearly 200 peer-reviewed articles and authored seven books, including data science and machine learning textbooks. He also works closely with industrial research labs on cutting-edge problems, typically as a visiting researcher. The most recent engagements include Amazon, ByteDance, Getty Images, Microsoft Research, and Spotify.

Chirag will be discussing the conceptualization of Generative AI literacy in general and for specific fields, including computer science, social sciences, communication science, and information science, how education changes in general, tools and methods that we need to consider. He will discuss different logical stages, the learning stage, the components stage (Ng et al., 2021), the implications of Gen AI literacy (Pinski et al., 2023), and different tools that can be used in the classroom for teaching and learning.

Shengnan Yang: Not What AI Does—But What It Reflects

Shengnan Yang is an Assistant Professor in the Faculty of Information & Media Studies at the University of Western Ontario, Canada. She earned her Ph.D. from Indiana University. Her research examines how digital technologies reshape organizational structures and governance regimes, with a particular focus on institutional coordination and infrastructural mediation. She adopts a mixed-methods approach—combining interviews, surveys, and computational analysis—to trace how power and reasoning emerge through socio-technical alignments. Current projects focus on empirical inquiries into digital governance and human–AI coordination, with an emphasis on the recursive tensions between power, reasoning, and institutional configurations. Publications include *JASIST*, *The Information Society*, *ACM ToCHI*, and *HICSS*, spanning topics in digital governance and human–AI interaction.

Yang will discuss the reframing of generative AI literacy—not as a static skillset or set of usage protocols but as a relational, dynamic, and iterative process that unfolds through interaction. Drawing on early-stage, non-task-based human–AI dialogue experiments, she argues that generative AI can both mirror and make visible human cognitive structures: surfacing reasoning patterns, judgment logics, and linguistic tendencies. In these interactions, users actively shape the model while responding to its outputs in ways that subtly reshape their own thinking, forming a subtle, ongoing feedback loop that can gradually reshape how users perceive and direct their reasoning. Unlike task-based AI use, which prioritizes outcome efficiency and hides internal cognitive scaffolding, non-task-based interactions expose co-construction logic. Yang will reveal how AI can amplify pre-existing biases, especially when users are unaware of how their reasoning is being mirrored and reinforced. This raises a critical ethical shift: from "AI and data/algorithm" to "AI and the mirrored self." As the boundaries between human cognition and machine output become increasingly fluid, the stakes of generative AI literacy also shift. Thus, AI literacy must include tool fluency and the reflective capacity to recognize when one's identity, reasoning, and epistemic authority are being surfaced, reinforced, or quietly redirected through interaction.

Xiaohua Awa Zhu: Inclusive Pedagogy to Entwine AI Literacy with LIS Foundations

Xiaohua Awa Zhu is an Associate Professor at the School of Information Sciences at the University of Tennessee, Knoxville. Her work focuses on several themes at the intersection of information policy, social informatics, and libraries: misinformation governance, rights related to digital intellectual properties and digital ownership, open government data and community empowerment, and the impact of digital transformation on libraries. Her work combines qualitative and quantitative methods, often drawing on social theories and historical perspectives.

Drawing on her experience teaching MLIS courses such as information organization and retrieval, digital libraries, and government information sources, Zhu has observed a wide range of student responses to generative AI—from resistance and uncertainty, particularly among those with humanities backgrounds, to enthusiastic adoption and critical experimentation. While some students expressed concerns related to ethics, professional identity, and technical skills, others engaged deeply with AI tools, developing projects and reflecting on their potential within the LIS field. Zhu has also collaborated with practitioners who are actively embedding AI into their workflows, offering

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additional insight into the real-world challenges and innovations shaping the profession. In this panel, she will discuss how these observations are informing her evolving pedagogical approach, which aims to build inclusive and critically grounded AI literacy while reinforcing the foundational values of library and information science.

Laura Ridenour: AI literacy and its Effectiveness

Laura Ridenour is an Assistant Professor in the School of Information and Learning Technologies at the University of Missouri. Her research interests broadly center around the science of science, knowledge organization, scholarly communication, computational social science, ethics, and finding ways to use artificial intelligence for good. She's currently working on using AI as an analytical tool to make public data more usable and accessible.

AI literacy isn't just about teaching to understand and avoid pitfalls using the technology as it is now, but also helping students to build a mentality that the technology is live and will change, and so must they. AI and LLMs can be powerful tools when used correctly. It's important to emphasize that privacy may be forfeited by using an LLM to their ideas with the query, whatever data they submit, their personal information, and possibly much more (such as Grammarly recording users' screens). They also need to understand when it's appropriate to use such tools, such as to generate a set of practice problems for the command line or Python vs. using it to write all the code, or with any FERPA or HIPAA data. Learning how to prompt AI properly isn't as simple as jumping into asking questions; by giving it an identity and smaller sets of steps, questions, or instructions, the results are much better, and it's easier to redirect the AI. Finally, they need to know how to verify the output of the LLM by searching the open Web for appropriate resources or scholarly databases to avoid pitfalls such as bad or incorrect output or hallucinations.

Lateef Ayinde: Teaching Generative AI: Formal and Informal

Lateef Ayinde is a graduate Lead Instructor and PhD Candidate at School of Information Science, Florida State University. His work focuses on several themes at the intersection of social informatics, Artificial Intelligence, information policy, digital government, and the impact of digital transformation on society and institutions. His work combines qualitative and quantitative methods to understand society and institutional adoption of Gen AI. He won the 2025 Outstanding Teaching Assistant Award (OTAA).

Lateef will discuss how Generative AI literacy should be taught within the four walls of the class and beyond the four walls of the classroom. Literacy is a continuous development that is shaped by technology. Leu et al. (2013) explained that literacy is not static. Generative AI literacy can be viewed from technical and non-technical aspects. The technical aspect is about the algorithm and its functions, while the non-technical view is about understanding the social, political, and ethical aspects of Gen AI usage to develop explainable and ethical Gen AI. In the panel, Lateef will discuss how to organize Gen AI literacy classes formally and informally, as well as the syllabus and methods that can be applied to teach Gen AI literacy - teaching approach, task, artifact-based, or case-based approach. Informally, through public-based projects, and how the syllabus should be designed and developed. Also, with interdisciplinary approaches, Lateef will discuss computer, social, communication, and information science approaches and challenges and opportunities in Generative AI literacy.

Panel Moderator: Miyoung Chong, University of South Florida

Miyoung Chong is an Assistant Professor of the Department of Journalism and Digital Communication at the University of South Florida. Her research centers on the intersections of information, minority, and power in digital, social, and news media settings with a critical informatics approach. Her larger body of research is characterized by computational social science to investigate digital media and online community engagement. She published her works in *Political Communication*, *Government Information Quarterly*, and *Journal of Medical Internet Research (JMIR*). She received the SIG SM research award (runner-up) at the ASIS&T AM in 2021. She was awarded the prestigious Women Leadership & Philanthropy Dr. Kathleen Moore Faculty Excellence Award at the University of South Florida in 2024 and faculty research award at the 2024 Association for Education in Journalism and Mass Communication (AEJMC) conference.

CONCLUSION

Generative AI poses challenges and opportunities to teachers of all types, including librarians, post-secondary instructors, and teaching assistants. Enhancing our own Generative AI literacy is crucial to inform the evolution of our assignments and instructional approaches. Teaching Generative AI literacy to our students and the broader public is essential for an informed information science workforce and an informed population. Information scientists are well-equipped to be leaders in these efforts.

GENERATIVE AI USE

Generative AI was not used in the preparation of this panel proposal.

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