EIT Presents: Enhancing the Educational Experience with ChatGPT and AI
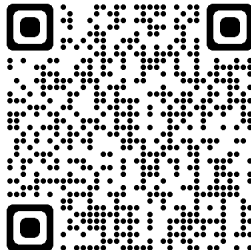
February 16, 2024

University of Houston

Stephen Power Farish Hall

Conference Schedule

Time	Session
8:30 a.m. - 9:00 a.m.	Check-in / Coffee, tea, etc., light breakfast
9:00 a.m. - 9:10 a.m.	Welcome
9:10 a.m. - 9:50 a.m.	Session 1
10:00 a.m. - 10:50 a.m.	Session 2
11:00 a.m. - 12:00 p.m.	Session 3 (Keynote)
12:00 p.m. - 1:00 p.m.	Lunch
1:10 p.m. - 2:10 p.m.	Session 4
2:20 p.m. - 3:00 p.m.	Session 5
3:10 p.m. - 3:50 p.m.	Session 6
4:00 p.m. - 4:40 p.m.	Session 7

Presentations will occur concurrently in the Kiva Room, Room 211, and Room 307. Please refer to this program for each presentation's location.

You can also view the schedule online by visiting https://uh.edu/eit/ai-event/ or scanning this QR code:

Session 1 – 9:10 a.m. - 9:50 a.m.

Kiva Room

Teaching Intentionally with AI: Transparency, Authenticity, and Student Self-Generation

Dr. Janet Lawler

Intentionality is critical to designing significant learning experiences for our students. Although ChatGPT has threatened higher education's conception of what is and is not necessary for students to learn, I argue generative AI tools illuminate how instructors should critically re-evaluate the purposes of their instructional methods within a transparency framework.

Room 211

Improving Students' Engagement and Assessment in the Era of ChatGPT

Dr. Cristian Morosan & Tucker Johnson

ChatGPT and other generative AI have been on the forefront of critical discussions in academia regarding the role of technology in impacting student's creativity and assessment and the potential for misuse. This presentation provides insight into (1) designing course content and activities that stimulate engagement and (2) developing assessments that are resilient to ChatGPT and other generating AI output.

Room 307

IMELS.AI: Interactive Music Education Lesson Scaffold

Dr. Cory Meals, Dr. Emily McGinnis, & Dr. Julie Derges

In this presentation, Meals, McGinnis, and Derges will provide a comprehensive review of the IMELS.AI system, sharing initial findings from field testing. Grounding and prompt engineering strategies will also be discussed.

Session 2 – 10:00 a.m. - 10:50 a.m.

Kiva Room

Transforming and Differentiating the College Experience for All Students

Todd Taylor - Adobe

Transforming and differentiating the college experience for all students. We will explore the significant role of AI and how it can be leveraged to foster engaged student experiences that not only develop digital literacies but also establish strong connections between their curriculum journey and future career and community involvement.

Room 211

Reflect Interact Create (RIC): A ChatGPT-based Model to Develop Students' Critical Thinking Skills

Dr. Nouhad Rizk

ChatGPT can be used as a learning tool. Reflect- Interact-Create (RIC) is a ChatGPT-based model to develop students' critical thinking skills. The model incorporates critical thinking skills into the learning process which helps students deal with different types of problems efficiently. The results show that ChatGPT is an opportunity to innovate rather than a threat and an opportunity to build community by inciting discussions though collaboration.

Room 307

AI and Core Level Mathematics

Dr. Jeff Morgan

We will present the results of feeding thousands of assessment items from our core level mathematics courses to different AI enabled ChatBots. In addition, we will demo the coming AI Tutoring software from Wolfram Alpha.

Session 3 – 11:00 a.m. - 12:00 p.m.

Kiva Room

Keynote

Dr. Xiaoyang (Rebecca) Li

Dr. Li's keynote will delve into Firefly's transformative impact on creativity generation. With her expertise, she offers invaluable insights into the ever-evolving landscape of creative AI, showcasing how Firefly has become a pioneering force within Adobe.

Room 211

Cancelled - An AI-based Social Media Crawler to Perceive UH Community Sentiments

Dr. Babu Sundaram, Fred McGhee, & Gosfrey Gutierrez

UH leverages a robust social media presence (X, Facebook, etc.) for news dissemination, community engagement, and brand reinforcement. Our automated, cloud-based AI sentiment analysis crawler extracts valuable insights from public SM posts, presenting real-time topic summaries, sentiment breakdowns, and community needs. This approach aids upper management in addressing concerns proactively.
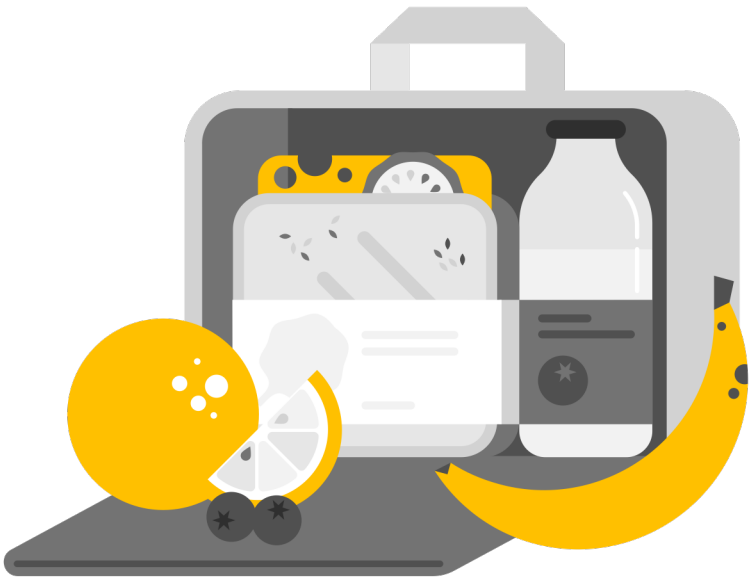
Lunch – 12:00 p.m. - 1:00 p.m.

Kiva Room

Microsoft Copilot: Your AI Assistant for Microsoft 365

Seth Jewell, Charisma Edwards, & Ambrosia Williams – Microsoft

Microsoft Copilot is a powerful AI tool built on GPT that helps you create, communicate, and collaborate more effectively in Microsoft 365 apps. This session will cover how Copilot works, what it can do, and extensibility options. We will also demo the product and review some examples of how Copilot can assist you in various scenarios, such as writing documents, creating presentations, analyzing data, sending emails, and more.

Session 4 – 1:10 p.m. - 2:10 p.m.

Kiva Room

Strategies for Incorporating ChatGPT into the Digital Marketing Education Curriculum

Dr. William Zahn & Danny Gavin

We will cover how ChatGPT can be used in the classroom to prepare our students to be better digital marketers. We will provide examples of projects and assignments that students can practice using ChatGPT and become more efficient prompt writers as marketers.

Room 211

Save the Blue Frog: Employing A.I. Technology to Develop an Anthropomorphic Character for an Interactive, Experimental, Role-Playing Sustainability Education Game

Dr. Michael Kraten

"Save The Blue Frog" is an educational gaming activity that employs Social Presence Theory, the Humanization Effect, and Cognitive Complexity Theory. Because of the challenges in defining persuasively human characteristics for the anthropomorphic frog character, newly emerging A.I. technologies are proving helpful in generating game profiles, scripts, and models.

Room 307

Humans are Still in the Loop: GPT and other Conversational AI

Dr. Elizabeth Rodwell

Large language model artificial intelligences like ChatGPT are good at many things, but they require more than algorithms to work well. While conversation is a natural part of interaction between humans, even machines trained on a daunting amount of text require intervention by conversation designers to improve their output.

Session 5 – 2:20 p.m. - 3:00 p.m.

Kiva Room

Leveraging AI to Enhance Legal Education

Dr. Seth Chandler

This presentation will discuss innovative ways to leverage AI to augment legal education, including using AI for research, writing, translations, and -- yes -- programming. It will balance AI's benefits with its risks and provide suggestions to make integration of AI a routine aspect of law teaching and learning.

Room 211

ChatGPT for Learner Support

Dr. Emese Felvegi, Aniko N. Fields, & Sarah Schmitz

The presenters will provide possible applications of ChatGPT in education as part of coursework and learner support systems for language, critical thinking, and information literacy development.

Room 307

Transforming Teaching: Prompting Techniques and Assessment Strategy for Learning with AI

John McNally - Wolfram Alpha

See how the literature on prompting techniques for Large Language Models can be applied to classroom practice and student use of LLMs. Given the ability of LLMs to suggest solutions in a wide range of problem domains, instructors can incorporate student critical thinking and iterative problem-solving to go from plausible hallucinations to successful learning outcomes. The talk will also cover practical assessment strategies that leverage the strengths of LLMs while clearly highlighting the student's thinking.

Session 6 – 3:10 p.m. - 3:50 p.m.

Room 211

The Future of Education: Leveraging ChatGPT to Enhance Teaching and Learning

Dr. Jae Lee & Dr. Youmei Liu

Our conversation will focus on theoretical grounding of using ChatGPT/AI (technology imperative), key emphasis of the current project (e.g., engaged learning, assessment, skill development, and outcomes), students' specific experimental activities in classroom, current findings (e.g., differences between pre-test and post-test) and tentative conclusions.

Room 307

Integrating AI into Introductory Accounting Courses to Facilitate Student Engagement and Success

Dr. Kiran Parthasarathy

The 2023 TIP grant helped introduce Aleks, an artificially intelligent learning and assessment system, which helped students repeat Accounting problems from different angles to gain mastery. Critical thinking and problem-solving using prompt engineering exercises in Chat GPT for Intermediate Accounting. Preliminary evidence showed that student learning outcomes improved based on these interventions.

Session 7 – 4:00 p.m. - 4:40 p.m.

Room 211

Lessons from Integrating GPT-4 and 3D Printing in a Course on Structural Optimization

Dr. Tian Chen

We discuss the integration of ChatGPT and 3D printing within a senior elective focusing on engineering optimization. We summarize the results of a pre- and post-exposure survey and demonstrate improvements in learning outcome through ChatGPT.

Room 307

ChatGPT as a Learning Tool: The Potential for Human-Machine Collaboration in the Political Science and Public Policy Classroom

Dr. Zachary Zwald

My talk will proceed in two parts. First, I will present survey results of students' views on AI and ChatGPT before and after a semester of instruction on, and experience with, ChatGPT. Second, I will review initial lessons learned from a series of exercises where students were instructed to utilize ChatGPT to complete course assignments.

Keynote Speaker: Dr. Rebecca Li

Dr. Rebecca Li, the Co-founder and Release Tech Lead of the Firefly mono repo SDK, will introduce how Firefly's innovations have revolutionized creativity generation at Adobe. Launched as Adobe's first AI Art generation tool, Firefly has become a pivotal force within the creative industry.

The Firefly SDK Mono Repo serves as the vital link between development and deployment within the expansive Firefly ecosystem. As a pioneering founder of the Firefly SDK, Dr. Li has been instrumental in establishing it as the single source of truth for numerous dynamic teams. This pivotal role requires close collaboration with evolving research architectures and rapid adaptation to changing product requests.

Dr. Li has witnessed the remarkable transformation of the Firefly SDK community, growing from a small group of researchers to over 100 researchers and engineers in just months. She handles the intricate task of consolidating feature requests from stakeholders in model training, model conversion, performance evaluation, and production deployment. In her dual role as the Release Tech Lead, she oversees internal research model releases, manages weekly code base stable releases, and leads significant refactoring upgrades. Her visionary leadership has introduced robust collaboration and release workflows, enhancing version release efficiency and transparency for contributors.

Dr. Li's keynote will delve into Firefly's transformative impact on creativity generation. With her expertise, she offers invaluable insights into the ever-evolving landscape of creative AI, showcasing how Firefly has become a pioneering force within Adobe.

Presenter Bios

Session 1

Dr. Janet Lawler

Janet Lawler is an instructional assistant professor for civic engagement and community-engaged learning in the Honors College, also serving in the Bonner Leadership Program. She previously held a postdoctoral position at Carnegie Mellon University for the practice and scholarship of teaching and learning. She writes on the democratic politics in digital spaces and algorithmic governance.

Dr. Cristian Morosan (TIP Recipient)

Dr. Cristian Morosan is a Professor at the Hilton College with expertise in information technology and innovation. Cristian is an avid innovator who is always looking for opportunities to introduce students to new technologies.

Tucker Johnson (TIP Recipient)

After nearly 15 years in Hotel Sales and Restaurant Operations, Tucker Johnson joined the Hilton College in 2015. He holds a Bachelor of Science in Hotel Administration from Cornell University and a Master's in Hospitality Administration from the University of Nevada, Las Vegas (UNLV).

Dr. Cory Meals, Dr. Emily McGinnis, & Dr. Julie Derges (TIP Recipients)

Cory Meals, Emily McGinnis, and Julie Derges all serve on the music education faculty at the Moores School of Music. Though their individual research agendas explore different aspects of music and music education, their shared engagement with and support for the unique needs of developing music educators is the driving force behind this project.

Presenter Bios

Session 2

Todd Taylor – Adobe

Todd Taylor, PhD, is an Adobe Pedagogical Evangelist and English Professor at the University of North Carolina at Chapel Hill. His research, teaching, and curricular leadership examine how literacy continues to evolve in response to digital, network, and information technologies. He is an award-winning scholar and teacher, and his most recent publications include Adobe Creative Cloud across the Curriculum, a Guide for Students and Teachers and Becoming a College Writer.

Dr. Nouhad Rizk

Dr. Rizk has been serving as the director of undergraduate studies to engage students in the research process and facilitate the discovery of new knowledge. She is leading the educational data mining Lab, exploring new tools, and emerging technologies, approaches, and teaching strategies to facilitate vibrant, challenging, and reflective learning experiences at the Computer Science Department. She is the founder and the leader of the data science Showcase in collaboration with the data science institute.

Dr. Jeff Morgan

Dr. Jeff Morgan is the Associate Provost for Education Innovation and Technology and a Professor of Mathematics at UH. He has been an advocate for innovative instruction for many years, and his team at UH oversees various aspects of online instruction, instructional design, the Canvas LMS, the CASA Testing Centers, continuing education, and the development of instructional software.

Presenter Bios

Session 3

Dr. Babu Sundaram

Dr. Sundaram is the Director of Technology at the College of NSM, UH. He has a doctoral degree in Computer Science with a focus on authentication mechanisms in Cloud computing. Under his leadership, NSM IT has been leading efforts to automate various business workflows and value-added services using cloud AI offerings.

Fred McGhee

Fred McGhee is the Executive Director of Academic Affairs and Senior Information Resource Manager for the College of Natural Sciences and Mathematics. He has an M.B.A and has 30 years of experience in higher education working in various departments throughout Administration and Finance, the Chancellor's Office and Academic Affairs.

Gosfrey Gutierrez

Gosfrey Gutierrez Jr is Application Developer at the College of NSM, UH. He leads a team of IT professionals in creating technical solutions and developing infrastructures that help staff, faculty, and students with an emphasis on data analytics and cloud.

Presenter Bios

Lunch Session

Seth Jewell - Microsoft

Seth Jewell is a Principal Technical Specialist at Microsoft working on the Microsoft US Education team. He has worked at Microsoft for over 16 years and has over 20 years of IT experience. On the US Education team at Microsoft, Seth's core priorities are centered around helping students and faculties achieve more through Microsoft services and platforms. His area of technical focus is Modern Work which includes productivity, collaboration, and now AI.

Charisma Edwards - Microsoft

After receiving her Ph.D. in electrical engineering with a research focus in machine learning, Dr. Charisma D. Edwards started at Microsoft as a college hire in 2014. As a Technology Strategist, she partners with leaders at higher education institutions to leverage Microsoft technology solutions for organizational transformation.

Ambrosia Williams - Microsoft

Ambrosia Williams is the Microsoft Account Executive who manages the entire University of Houston Microsoft portfolio, as well as other surrounding Higher Education institutions and Academic Medical Centers in the State of Texas. She is also a new edition to the Cougar family, as she recently began the Professional MBA program within C.T. Bauer College of Business in Spring '24!

Presenter Bios

Session 4

Dr. William Zahn

William Zahn is a Professor of Practice in marketing. He teaches digital marketing and introduction to marketing. He also serves as the Strategic Marketing Advisor for the Bauer College of Business.

Danny Gavin

Danny Gavin, founder of Optidge, is a seasoned digital marketing strategist and adjunct professor, teaching graduate level digital and social media marketing at C. T. Bauer College of Business since 2016. Alongside leading a booming agency and being a family man with five kids, he hosts the Digital Marketing Mentor Podcast, sharing his expertise and nurturing new talent in the field.

Dr. Michael Kraten

Michael Kraten, PhD, CPA is Director of Accounting Program Initiatives at Bauer. After beginning his career at Deloitte and serving as a Consulting Partner at BDO, he co-founded a series of management consulting practices. He specializes in risk management, modeling, decision analysis, forensic analysis, and educational gaming activities.

Dr. Elizabeth Rodwell

Assistant Professor of Digital Media at UH, founding director of the University of Houston UX Lab and executive director of Houston's User Experience Professionals Association. My current research is about conversational artificial intelligence and user experience. My new book is: Push the Button: Interactive Television and Collaborative Journalism in Japan

Presenter Bios

Session 5

Dr. Seth Chandler

Foundation Professor of Law Seth J. Chandler teaches both doctrinal courses such as constitutional law and courses straddling mathematics and computation, such as a new course on Large Language Models for Lawyers. A graduate of Harvard Law School (1983) and Princeton University (1979), Professor Chandler has taught at the University of Houston Law Center since 1990.

Dr. Emese Felvegi

Emese Felvegi is a Senior Professor of Practice teaching mass section information literacy courses at the C.T. Bauer College of Business. She is the college's Director of Digital Learning.

Aniko N. Fields

Aniko N. Fields is a doctoral candidate at Murray State University in the English Pedagogy program. She has 13 years of teaching experience from Hungary, where she taught ESL students at the community college level. Her research interest lies in the implementation of generative AI in the teaching of English composition for ESL students in higher education.

Sarah Schmitz

Sarah Schmitz is an instructional designer at the Office of Digital Learning at the C.T. Bauer College of Business. She has supported EdTech implementation and digital pedagogies for Higher Ed, K-12, and corporate professional learning.

Presenter Bios

Session 5

John McNally – Wolfram Alpha

John McNally has a Master of Education in Curriculum and Instruction and a Bachelor of Science in Physics, both from the University of Illinois at Urbana-Champaign. He has taught in the public and private education sectors and is passionate about making modern physics and mathematics concepts accessible to students. John's current intellectual interests are varied and include application of Deep Learning systems and methodology to education, thinking about the mathematical foundations of physics, exploring agent-based computational economics, and development of new educational frameworks using "gamification" and engagement through computer systems. John is currently taking steps into the field Data Science as a means to try to unify these varied interests.

Session 6

Dr. Jae Lee (TIP Recipient)

Dr. Jae Lee is a professor at the Jack J. Valenti School of Communication and has been teaching group and organizational communication classes for over 20 years. He currently serves as the Director of Undergraduate Studies at the Valenti School of Communication.

Dr. Youmei Liu (TIP Recipient)

Dr. Youmei Liu is an adjunct faculty at the Jack J. Valenti School of Communication and has been teaching Information and Communication Technology course for over 20 years. She also serves as a Director of Assessment and Accreditation Services in the Office of Institutional Effectiveness under the Provost Office at UH.

Dr. Kiran Parthasarathy (TIP Recipient)

Dr. Kiran Parthasarathy teaches Introductory Financial Accounting, Managerial Accounting and Frameworks of Financial Accounting at the C.T. Bauer College of Business, Department of Accountancy and Taxation. She is the Faculty Director of Principles Accounting Courses and is deeply interested in introducing innovative techniques towards student learning and success and has published research papers in the field of accounting education.

Presenter Bios

Session 7

Dr. Tian Chen (TIP Recipient)

Dr. Tian Chen is an assistant professor of Mechanical Engineering. His research is on experimental mechanics of architected soft matter with intelligent behavior.

Dr. Zachary Zwald (TIP Recipient)

Zachary Zwald is an Instructional Associate Professor in the Political Science Department who serves as the director of the Center for International and Comparative Studies as well as the National Security Studies Minor. His research and teaching focus on International Relations, with a focus on issues of national security and foreign policy decision-making.
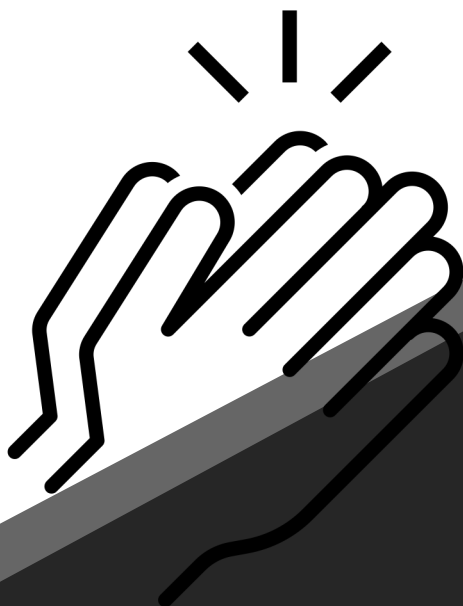
Vendors

Adobe
Microsoft
Wolfram Alpha

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Special Thanks

A special thank you to the UH Faculty and Departmental Instructional Support (FDIS) Team for their hard work and attention to detail: Brian Gharala, Dr. Jackie Hsu, Anjana Singhal, and Esmeralda Barboza.

Also, MANY thanks to the volunteers who made the day a success in so many ways:

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Christopher Jackson	Lorenso Longoria
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Sammy Hwang	Meghana Tekulapally
Andrea Arias-Rodriguez	Nora Ali
Ngozi Onwuama	