AI's Potential to Improve Diversity, Equity, and Inclusion:

A conversation with SCAD service design M.F.A. candidate Lindsay Brine

Service design improves user accessibility and streamlines internal operations

Service designers research and analyze human behavior, societal needs, business models, and competitive environments to create new systems, services, and human-centered strategies. SCAD service design professor Ricardo Martins explains that the discipline, "Enhances the resilience of services, enabling businesses to adapt and respond effectively to changing market demands and unforeseen challenges … crucial for maintaining service continuity and customer satisfaction." The field offers designers the opportunity to imagine and shape business and industry futures.

One of the disciplines in the De Sole School of Business Innovation, SCAD's pioneering service design degree program offers exemplary academics that prepare students to thrive professionally. Professor Martins explains that the program, "Equips students to be the orchestrators of experience, blending strong research skills with innovative creativity. It stands out for its emphasis on practical, hands-on training alongside sophisticated techniques. This approach ensures that ideas are brought to life effectively." Students of service design have won Red Dot Design Awards and appeared in Touchpoint, the international trade magazine of the Service Design Network.

The advantages of hiring SCAD service design graduates are manifold. Martins says the program offers, "A depth of study uncommon in the field. SCAD students are well-versed in both theory and practice. Graduates bring a unique blend of

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theoretical understanding, practical experience, and cultural competence to any company, making them valuable assets." Armed with a holistic education, SCAD alumni are employed at Amazon, Apple, BBVA Compass, IBM, Lowe's, Microsoft, The Home Depot, and elite global design consultancies like Boston Consulting Group, Booz Allen Hamilton, Fjord, Harmonic Inc., and more.

Lindsay Brine's research at SCAD

Lindsay Brine came to SCAD in Fall 2021 for her M.F.A. in the discipline. During her time at the university, Brine has collaborated with NASA to create communication product design and development related to strategic outreach initiatives for the ICESat-2 team at Goddard Space Flight Center. She was also one of a select group of graduate students who, with the Savannah Tree Foundation, synthesized mixed method research related to the impact of urban heat islands and tree canopy equity. These experiences helped build the foundation for her research, which investigates the intersection of artificial intelligence (AI) and diversity, equity, and inclusion (DEI) through a service design perspective. She examines the relationship between technology and humanity to understand how their dynamics shift and evolve in a variety of industries as AI advances. Professor Martins acknowledges AI's promise to "revolutionize the discipline." He says, "By embedding AI into the fabric of service design, we are enhancing existing methodologies and pioneering a novel, more efficient, and more responsive approach to service delivery and user experience."

SCADask paired Brine with service design M.F.A. student and SCADask research assistant Subin Cho, who was one of three SCAD students on the only U.S. student team selected for the 2023 Service Design Award, the biggest international award that recognizes outstanding service design work. They discussed Brine's developing research, "Artificial Intelligence's Impact on Diversity, Equity, and Inclusion in Service Industries: A Service Design Perspective."

Interview

Subin Cho: Why make service design your field of study?

Lindsay Brine: What I love about service design is it zooms in and out from different perspectives. You're looking at this bigger picture, these ecosystems, but then you're also zooming into this micro-level to understand service encounters, touchpoints, service delivery methods, and how you can create value for all stakeholders involved. It's fascinating to investigate connected systems.

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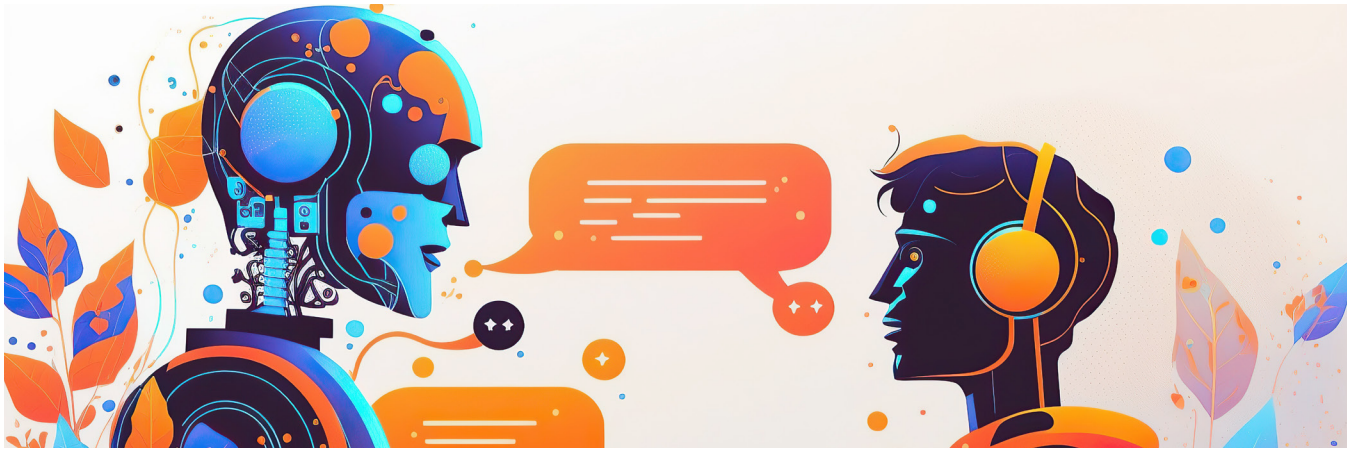

Cho: Prior to your graduate research at SCAD, what kinds of professional experiences did you acquire?

Brine: My undergraduate degree is in graphic design, which grounded me in visual design. Prior to coming to SCAD, I worked for a full-service integrated advertising agency as a creative director. I had always been involved with technical digital projects as far as web and interaction design —work with digital media, and collaboration with developers and software engineers that required staying up on technology and adapting to how the internet changed. I came back to SCAD later in life, and that provides a different perspective — this study is like a new iteration of what's to come. At SCAD, I've worked on design solutions regarding refugee resettlement barriers, urban heat islands and tree canopy equity, haptic technology solutions for deaf and hard of hearing athletes, and addressed climate challenges with NASA. I'm grateful for all the opportunities I've had to study here.

Cho: Why did you choose DEI and AI as the central topics to your research project?

Brine: When I worked as creative director for an advertising agency, I looked for opportunities to bring diversity into the branded work we produced — this might be part of scripting, casting, or looking for more inclusive opportunities to enhance a visitor experience for someone with a disability. Being more intentional can be simple, like ADA compliant website design or how wheelchair accessibility in visitor centers impacts display design. However, I knew this was a limited viewpoint and that organizations incorporate DEI principles at a larger scale. I wanted to know more.

I was always interested in diversity, equity, and inclusion — as a principle and also how organizations adopt it, how it's measured, how it's implemented. I didn't think of AI as a solution at first. I kept seeing profile photos of my friends on social media where they had used generative AI to create digital artwork versions of themselves, which piqued my interest. I obtained a baseline understanding of generative AI and learned more about how AI varies based on the capability, context, and application. It has already, and will continue to, disrupt businesses.

The convergence of technology and humanity was such an interesting subject to me. When I started to think about combining the two, I had to ask, as a service designer, "How can we create, or how can we prepare for working with this emerging technology?" And then ask, "What would it look like to combine diversity, equity, and inclusion with that?" I wanted to understand if DEI and AI could be mutually beneficial and discover what design principles may be needed to approach opportunities that leverage responsible AI solutions.

Cho: Can you discuss your research journey?

Brine: My literature review covered academic and peer-reviewed articles, which gave me a good foundation. Researching a technology that is so rapidly changing involved balancing the academic reading with following trends, news articles, and industry communications. It's a mixed methods research approach because it includes listening to TED Talks and interviews with founders of some of the leading tech giants, partners, and innovators in the field — listening to expertise. I've researched everything from emerging AI tools to trademarking and copyright issues. I have been following these waves as the technology is released to the public and being utilized, observing their responses, and seeing how companies take action.

Cho: What are the main insights from your literature review?

Brine: AI is an economic driver and industry disruptor that has major impacts on businesses. There are human risks as AI replaces jobs and creates opportunities for new jobs. There are technology risks like biases in data collection and issues of privacy, accuracy, and transparency.

Historically, DEI has been associated with human rights movements. More recently, business have adopted DEI practices to guide organizations towards longer-term, positive outcomes, but there's also been criticism on how these initiatives have been implemented.

It's critical for companies and leadership to navigate the implementation of responsible AI — how and when to move to more automated systems triggers a series of considerations that shape outcomes. Positive change to complex socio-technical systems will require designers to carefully navigate complexity with an approach that centers humanity.

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Cho: How do you want your research to impact the industry or a business?

Brine: There are a few outcomes that I'm looking at — how we service designers raise awareness — how we provide resources to fellow designers and multidisciplinary teams.

When you're combining AI with DEI, you see unintentional outcomes that are harmful within the creation of new applications for artificial intelligence. What kind of awareness does a designer need to have to proactively take preventative measures around diversity, equity, inclusion so they'll know how to enter into projects or that assessment?

On the other side, as human-centered designers, we're looking for pain points, listening to customers, and trying to create value for all stakeholders. If there is something that's unintentionally harmful, how do we correct that? How do we evaluate the systems, the processes, and the technology in order to design an outcome that is better, iterative, and more progressive?

I want to help teams, designers, and service designers as they look for design opportunities and solutions

on the front end, and as they continue to monitor through implementation, adjustments, or course corrections. From a tactical standpoint, I'm looking at how designers enter, monitor, and engage in these conversations.

Cho: Are there any frameworks or resources you think service designers should study to create value for companies?

Brine: I am working on a framework after examining the Design Council's Framework for Innovation. They took their previous Double Diamond method and expanded it in the context of sustainability. I think it's interesting to look at a model that takes a traditional design process and modifies it based on a big, multidisciplinary topic like climate change that needs incredible designers to find opportunities.

I'm also considering system-level models and seeing if there is something that can be modified. Foundational methods in service design, co-creating solutions involving multiple stakeholders, testing, prototyping, and deploying are integral processes that are important in the release of new applications for artificial intelligence.

Cho: Do you have beneficial suggestions for companies based on your research?

Brine: As I continue to work on the design solutions for my research, I am considering business leaders as a key target audience. They can start with establishing guidelines around what responsible AI practices look like for their organizations and how to share those guiding principles with consumers or users. This may mean assembling entirely new teams, which is a great opportunity to bring together a diverse set of leaders to help tackle these issues, prevent unintended harm, and answer questions over what the future of AI is for their organizations.

Cho: Where do you see the most potential for service designers to positively shape the future of AI? What opportunities excite you?

Brine: One of the most fascinating parts of artificial intelligence is that it can be incorporated across entire systems. It's a tool that can definitely be utilized for good. I think what's exciting is there's an incredible opportunity for a broad subset of applications. I think it's going to lead to outcomes that we've never thought were possible before.

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Cho: That sounds wonderful — design for good. What organizations or innovators stand out to you as leaders in the field?

Brine: Artificial intelligence has technically been around for a long time, since the 1950s. I think of IBM, a longstanding company that is leading in technical innovation — digital companies like Google and Facebook. The reason they’re such game changers is because they have the consumers and big data. Then OpenAI, which created and disrupted with ChatGPT and DALL-E. Anthropic. You have your tech giants and then you have these breakthrough companies with entrepreneurs who had professional experience at the large tech companies. There’s a small number of large stakeholders within this space — companies that have global impact. The technology is open-sourced, and a lot of times developers can incorporate it into their own products and services.

Cho: How can people be better served with AI?

Brine: I think there are applications of the technology that can help. There are opportunities across the board. I think if someone has a very specific application or a specific context in which they’re looking to provide a solution, absolutely, AI could be a part of that problem solving. Within accessibility and inclusion there’s certainly a lot to be gained from translation services. Some of those barriers that we’ve seen in the past are going to lessen because the technology is going to allow us to be more inclusive.

Cho: I really want to see that in the future. What is AI’s role in your life?

Brine: Right now it’s a resource to test ideas. Now that my academic research is there, occasionally I will ask ChatGPT a question about diversity, equity, inclusion, responsible AI, leaders in the field, foundational theory, and so forth. A lot of times it’s a validation metric, like having a conversation with someone and hearing that some of my conclusions are valid.

I use AI to play, as a tool to ideate. I’m still a little bit skeptical about professional practice and integration, so I’m testing that with some of the projects I work on outside of my research and seeing if this technology is useful.

Cho: What AI tools are you using?

Brine: I use Claude quite a bit. ChatGPT. I am testing Adobe Firefly. I just subscribed to Midjourney for image creation. The other thing I’m curious about, and what I love, is this potential of having a co-pilot to ask a lot of questions. I think we are going to have this stack of AI agents that cater to what we need — a financial advisor, an agent that helps with brainstorming, or an agent that helps with recipes.

I think there are simple, playful applications, too, that can be unlocked in new ways if people can be a part of this conversation — a part of developing

how it will work. If an AI tool is more inclusive, if it engenders trust in customers, you start to see how it really could have potential in all kinds of different ways. I think that's the biggest thing — I don't want people to be afraid of AI, especially designers and creatives. I want them to really understand the potential, embrace it, and be a part of it.

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This research insights was researched by Lindsay Brine (M.F.A., service design). Contributors include Subin Cho, designer; Paula Mogollón Mejía, SCADask principal design researcher; Michael Shreve, associate vice president for academic services; and Sarah Snook, senior writer and researcher.

SCADask is an applied research unit of the Savannah College of Art and Design that generates timely research at the intersection of commerce, creativity, and culture. To learn more, or to partner with SCADask, contact research@scad.edu.