

Navigating the Future of Interaction Design in the AI-Driven Era

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Abstract. This panel explores the transformative impact of computational technologies, particularly AI, on human-computer interaction (HCI), user experience (UX), and interaction design (IXD) within both industry and academia. As these technologies become integral to everyday life at an accelerating pace, they challenge the traditional approaches of both researchers and practitioners in enhancing utility, usability, learnability, and enjoyment in digital experiences.

Keywords: AI, HCI Research, HCI Design, Future of Work, Emerging Trends, Metacrisis.

1 Panel Topics and Objective

This session will examine both the evolving tools and methodologies, as well as contrasting the deeper socio-cultural “metacrisis” that are reshaping the HCI, UX, and IXD fields, aiming to amplify positive impacts. Join us to envision how these fields can adapt and thrive in this dynamic, AI-driven landscape, fostering innovation and meaningful human-centered design.

The “socio-cultural metacrisis” (2021), as discussed by Daniel Schmachtenberger and The Consilience Project, details the global crises that are occurring across various domains—environmental, social, political, economic, psychological, and more. These crises are being driven by fundamentally underlying issues in how we as individuals, groups, and societies think, make sense of things, conduct decision making and act,

relate to each other and to the world around us, and organize ourselves across the planet. Schmachtenberger invites us to actively focus on unpacking the entanglements and interconnectedness of our socio-technological, social, and market infrastructures, and address deeper "generator functions" (the fundamental patterns in human behavior) that are driving how we make decisions and act and the consequent crises that result.

This panel will be of broad interest to academics such as professors, researchers, and students in human-computer interaction (HCI) and related fields; industry professionals like UX/UI designers, product managers, and technology developers; policy makers shaping technology use and education guidelines; and the general public concerned about technology's societal impact.

The panel will begin with brief opening remarks from each panelist, followed by a moderated discussion exploring the key topics. The session will conclude with an interactive Q&A, allowing audience members to engage with both the industry and academia panelists, and contribute their perspectives. This panel will provide valuable insights into the future of interaction design, fostering a dialogue that bridges the gap between academia and industry while addressing the pressing challenges and opportunities of our rapidly evolving technological landscape.

2 Panelists and Position Statements

Gordon Montgomery

Gordon will chair the panel and coordinate the contributions from the different panelists and interventions from the audience. His main interest within this panel is to explore the unified future dimensions of conscious interaction design where both academic and industry approaches coalesce. Gordon has 20 years of experience in International Management CX Consulting with Fortune500, 10 years Executive Leadership Coaching and most recently 5 years of Strategic Foresight Consulting. His academic background is also varied: BA Linguistics, MSc Computer Science, MA Vedic Science, and PhD Transpersonal Psychology (2025).

Elizabeth Churchill

Dr. Elizabeth Churchill is a leading expert in Human-Computer Interaction (HCI), with a background in psychology and a PhD from the University of Cambridge. She previously served as the Director of User Experience at Google and has held influential research positions at eBay, Yahoo, PARC, and Fuji Xerox. An ACM Distinguished Scientist, CHI Academy member, and Executive Vice President of ACM, she has played a pivotal role in advancing HCI research and practice. Her work explores the intersection of social computing, ubiquitous computing, and internet sciences, focusing on how people engage with and experience technology in their everyday lives. She has built and led multidisciplinary innovation teams, advised on corporate strategy, and conducted extensive ethnographic research, as well as field-based and laboratory

experiments. Churchill's contributions extend to designing and managing large-scale system trials, helping shape the future of user experience and interaction design. Recognized with numerous honors, including honorary doctorates and the Athena Award for Executive Leadership, she continues to drive forward-thinking discussions on the evolving relationship between people and technology, bridging academic insights with industry applications.

I pose the questions that I believe we, as technologists and socio-technical theorists and practitioners, need to ask ourselves when it comes to our role in and relationship with the meta-crisis of thinking behind the metacrisis the world is facing:

- o What role does technology play in the production and amplification of these crises?
- o What does a change in thinking and action mean for us as technologists in terms of predictive and corrective meta-critical thinking and action?
- o What specific actions can we (must we) take?

First and foremost, we need to address the cons as well as the pros of exponentially advancing technologies, particularly AI. Arguably, these are driving an exacerbation of the metacrisis through disinformation, increased rapidity of development and shockingly low reflection on the automation of what are or may be harmful processes, and a dehumanization and a devaluation of human agency, dignity, and ethical responsibility. I will argue that thoughtful engagement with technology development processes and a change in product/platform development practices will help; I will argue for a radical shift in product/platform development processes to move away from the focus on short-term innovation and iteration at the cost of thinking through long term consequences. I will argue that the focus on delivering working software and hardware quickly prioritizes immediate functionality over a deep consideration of the long-term societal and ethical implications of what is being developed. I will argue that HCI and UX theorists and practitioners can shift the balance by focusing on human needs, values, and the complexities of socio-technical systems, and by centering the voices and needs of those who have been historically ignored or at the margins of discussion. I will argue that we need to move away from abstractions--"the user"--and focus on actualities--"this person", "these people", and "these experiences". I will argue that HCI and UX professionals have a vital role to play in navigating the meta-crises and in designing a more sustainable, equitable, and resilient future. Our ability to see the broader socio-cultural picture, to use effective methodologies to understand lived experiences, and to mobilize discursive frameworks to drive "What if?" thinking and translate abstract challenges into tangible, thoughtful and well thought-through design solutions makes us indispensable in this critical juncture.

Marta Rey

Marta Rey Babarro is recognized for her ability to seamlessly blend academic rigor with real-world application, fostering a culture of collaborative innovation. Her passion for building inclusive teams and her deep understanding of the diffusion of innovations make her a pivotal figure in navigating the complex landscape of emerging technologies and their societal impacts.

My experience at Google and Microsoft underscored the importance of building multi-disciplinary teams and fostering a culture of collaboration. As the co-founder of the Sprint Academy at Google, I championed innovative work methods that facilitated consensus and moved the company towards a more holistic, user-centered approach. Recognizing the unique value that academic expertise brings to industry, I actively recruited researchers directly from academia, ensuring that rigorous research principles informed strategic decisions. This approach consistently yielded successful outcomes, demonstrating the power of integrating academic rigor with industry pragmatism.

At Zillow, as Vice President of Research and Insights, I lead a diverse team across five research disciplines, driving investments aligned with the company's mission to “make home a reality for more people”. This role, allows me to connect experts from Population Science, Behavioral Science, User Experience, User and Market Science, and Marketing Insights to real-world challenges. Previously, my 15 years at Google and Microsoft involved leading research on strategic initiatives, including a 10-year education strategy for Google and the initial research for Chrome OS and Chromebooks, as well as leading research for Microsoft Outlook and Microsoft Project. These experiences have honed my ability to translate complex research findings into actionable insights that drive innovation.

With a PhD in Audiovisual Communication from Complutense University of Madrid, my academic background provides a strong foundation for understanding the diffusion of innovations. The current AI revolution, which is fundamentally changing how we interact with technology, is of particular interest to me. Specifically, the principles outlined by Everett Rogers in his seminal work, "Diffusion of Innovations" (Rogers, 2003), remain highly relevant. Rogers' model emphasizes the importance of factors like relative advantage, compatibility, complexity, trialability, and observability in the adoption of new technologies. In the context of AI, these factors are crucial for understanding user acceptance and integration into everyday life.

Furthermore, contemporary research builds upon Rogers' work, highlighting the dynamic and social nature of diffusion. For instance, studies exploring the role of social networks and opinion leaders in technology adoption (e.g., Valente, 1995; Centola, 2010) provide valuable insights into how AI-driven interfaces and experiences are spreading. These insights are essential for ensuring that AI technologies are not only technically sound but also culturally and socially appropriate. The speed of AI development necessitates a nuanced understanding of these diffusion processes to mitigate potential risks and maximize positive impacts.

My commitment to building inclusive teams and fostering a culture of empowerment and trust is central to my leadership philosophy. I believe that effective decision-

making requires incorporating diverse perspectives, including those from academia and industry, and triangulating data from multiple sources. As someone who has lived and worked in both academic and industry environments, I am uniquely positioned to bridge these two worlds and contribute to a more integrated and impactful approach between academia and the industry.

Torkil Clemmensen

Torkil Clemmensen is a professor at Department of Digitalization, Copenhagen Business School, Denmark. He received his PhD in human factors psychology from University of Copenhagen. He is on the steering board for NordiCHI, and senior editor for AIS Transactions of Human-Computer Interaction. As a co-founder of International Federation of Information Processing's Working Group TC13.6 on Human Work Interaction Design (HWID), he co-organizes a series of international workshops and working conferences on work analysis and interaction design in organizational, human, social, technical, political, and cultural contexts. He is engaged in Interaction Design for International Development. He contributes to Human-Computer Interaction (HCI), Design, Software Engineering, Information Systems, and Psychology.

My position on navigating the future of interaction design in the AI-driven era is shaped by two key factors: first, my belief in the necessity of post-human design principles to save the planet, and second, the undeniable fact that HCI researchers bear some responsibility for the negative aspects of UX and interaction design. In this panel, I argue that HCI researchers, both academic and professional, should adopt a radically critical and participatory approach in the AI era. This approach focuses on three main areas: academic freedom, where research integrity must be upheld as a core value by both academic researchers and professional practitioners, which includes rethinking sponsorships and ethics (Molka-Danielsen et al, 2022); broad participation, where efforts should be made to ensure participation is as inclusive as possible, perhaps utilizing AI to communicate and consider the perspectives of non-human participants (Nicenboim et al., 2023); and political design skills and knowledge, where the HCI community must develop skills and knowledge in political design (Wilson et al, 2018), including understanding the alignment or misalignment of HCI design with government systems and values.

Parisa Saadati

Dr Parisa Saadati (BSc, MSc, PhD, PGCE, FHEA) is a Senior Lecturer in Information Technology and the Course Leader for the MSc Applied Project Management at the University of West London. With over two decades of combined academic and industry experience, she brings a practice-based, interdisciplinary perspective to digital education and innovation.

Parisa holds multiple professional certifications, including PRINCE2 and Agile Project Management, and is recognised for her expertise in digital transformation, user

experience design, and innovation management. Her PhD research developed a socio-technical design framework to enhance user engagement and collaborative practices within Industry 4.0 environments. After her PhD, she moved towards, Industry 5.0 with new research on digital well-being in the workplace, and organisational readiness for digital transformation—all aligned with the United Nations Sustainable Development Goals. Her current research also explores immersive learning technologies (VR/AR/MR) and the role of gamification in addressing student procrastination.

Parisa is a Fellow of the Higher Education Academy and is committed to curriculum innovation that bridges academic theory with professional practice. Her teaching philosophy emphasises interactivity, critical thinking, and alignment with evolving industry needs, ensuring that learners are not only equipped with technical skills but also empowered to lead in complex digital landscapes.

My position on the future of interaction design in an AI-driven world is rooted in a belief that we must shift from efficiency-centred systems to human-centred, inclusive, and ethically conscious design.

Three core principles underpin my argument:

Empathetic Automation: As AI becomes increasingly embedded in interaction design, empathy must become a design requirement. Systems should prioritise transparency, agency, and context-sensitive interactions. A human-centred AI approach allows technology to augment human capabilities rather than replace them (Shneiderman, 2020). Such technologies should ensure that employees job satisfaction and wellbeing is considered in using/developing new technologies.

Critical Digital Pedagogy and Empowerment: Technology in education and the workplace should enhance curiosity, autonomy, and well-being. Rather than enforcing conformity through gamification and tracking, systems should support intrinsic motivation and personalised learning pathways (Selwyn, 2016). It is important to build digital systems which accommodate a range of cognitive profiles, including individuals with ADHD and Autism Spectrum Conditions. Designing for neurodivergent users is not only a matter of accessibility but of innovation—broadening usability, engagement, and inclusion across all user groups.

In this panel, I will argue that interaction designers, educators, and researchers must adopt a radically inclusive and ethically grounded approach. This means designing not just with users, but for their futures—shaping technologies that enhance human dignity, foster engagement, and support a more equitable digital society.

References

- Centola, D. (2010). The spread of behavior in an online social network experiment. *Science*, 329(5996), 1194-1197.
- Molka-Danielsen, J., Rasool, J., Smith, C.H.: Design and Deployment Considerations for Ethically Advanced Technologies for Human Flourishing in the Workplace. In: *IFIP Advances in Information and*

- Communication Technology (2022). https://doi.org/10.1007/978-3-031-02904-2_5.
- Nicenboim, I., Oogjes, D., Biggs, H., Nam, S.: Decentering Through Design: Bridging Posthuman Theory with More-than-Human Design Practices. *Hum Comput Interact.* (2023). <https://doi.org/10.1080/07370024.2023.2283535>.
- Rogers, E. M. (2003). *Diffusion of innovations*. Simon and Schuster.
- Selwyn, N. (2016). *Is technology good for education?*. John Wiley & Sons.
- Schmactenberger, L. (2021). Understanding the metacrisis: Cultural, economic, and technological dimensions. *Technology and Society Journal*, 15(2), 103–119.
- Shneiderman, B. (2020). Human-centered artificial intelligence: Three fresh ideas. *AIS Transactions on Human-Computer Interaction*, 12(3), 109-124.
- Valente, T. W. (1995). *Network models of the diffusion of innovations*. Cresskill, NJ: Hampton Press.
- Wilson, A., De Paoli, S., Forbes, P., Sachy, M.: Creating personas for political and social consciousness in HCI design. *Persona Studies*. 4, 25–46 (2018).