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Designing with and Through Uncertainties:

Staying with and Looking Forward

The period we're living through is characterized by uncertainties and tensions: Around the globe, we face intensifying environmental problems, geopolitical instabilities, and rapid technological acceleration. AI systems are moving from tools to adopted infrastructures that fundamentally change our professional practices. At the same time, marginalized people and communities continue to live amid long-standing inequities. With these complexities in mind, we need to ask what it means to design in and for this contemporary society, as well as what is good or meaningful design.

The authors featured in this issue do not offer any simple answers. Instead, and in the words of Donna Haraway, they ask us to “stay with” these tensions and to question dominant perspectives, taken-for-granted assumptions, and ways of seeing things; and to imagine alternatives centered around care, accountability, and plurality. For design, this means starting to prototype a world built on flourishing, equity, and collective intelligence.

In our cover story, Marc Hassenzahl, Judith Dörrenbächer, and Ronda Ringfort-Felner take a critical look at an enduring icon of interactive

design: the gestural interface from the film *Minority Report*. For more than 20 years, HCI has fetishized Tom Cruise's sweeping, “natural” hand movements as the pinnacle of interface design. But the authors argue that we have fallen for a problematic fallacy. While we have spent years trying to replicate the *usability* of that system, we ignored its *function*: a potentially dystopian, preemptive policing mechanism that served an oppressive purpose. This highlights a historical divide in our field between system knowledge and goal knowledge. We have become experts at making systems easy to use (system knowledge), but we have often neglected the ethical “why” and the ultimate goal the system serves (goal knowledge).

Other authors in the issue examine some additional current narratives that underpin contemporary interactive systems. Kristina Höök discusses ways of shaping and being shaped by embodied intelligence. She highlights how human intelligence is corporeal, emotional, and situated, and how a set of metaphors that foreground relationality, movement, and perceptual diversity can expand the design space for inclusive, ethical, and innovative embodied AI. In addition, Jie Li's column on rethinking boredom and idleness adds to this

change of perspective on the human in HCI. She asks us to reconsider the value of stillness in an age of constant engagement and says it's not “a rejection of technology. It is a call to rethink what we ask it to do.”

Along the lines of rethinking interactive system design, the skeptical chatbot project, shared by Chameera De Silva, Thilina Halloluwa, Abhijit Das, Abhijeet Singh, and Mohammad Azim offers a fascinating solution: an AI “cognitive partner” specifically engineered to augment professional skepticism in auditing. Technically, the system employs explainable AI tools, such as SHAP and LIME, to make the chatbot's “doubts” transparent. By simulating conflicting evidence and issuing counterfactual prompts, the bot nudges the human user toward deeper reflection. This is augmentation over automation. It proves that we can design interfaces that intentionally slow down a user's thinking to prompt reflection—a concept we call productive friction.

Environmental and societal challenges and transformations form another important stream of arguments in this issue. Eleonora Mencarini, Chiara Leonardi, and Paolo Massa highlight how HCI is responding to tourism pressures in

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mountain regions, offering insights on how local contexts intersect with global challenges. Ian Robson and Nic Whitton, in turn, invite us to consider joy and justice through delightful encounters. In doing so, they suggest that “joy is active and transformative: It expands our capacity to act and think” and suggest that “perhaps it’s time to celebrate the (potential) relationship between technologies and happiness, and integrity to help us think about alternatives to exploitation and oppression.”

Several contributions in this issue challenge us to rethink our field. Marisa Duarte’s, Pankti Darshan Shukla’s and Morgan Vigil-Hayes’s piece on Indigenous computational futures reminds us that design does not begin with digital technology but rather the surrounding context, including land, relations, and histories. On a related note, Jay Cunningham’s forum article on a Black community advisory board foregrounds governance as a central design issue. These contributions suggest that we need to recognize whose knowledge counts, who is included, and how it shapes the futures we create.

In *What Are You Reading?* Lindsey DeWitt Prat explores how non-English perspectives are fundamentally enriching HCI by challenging the Western “tool” metaphor. She looks at Miyake Yōichirō’s spatial AI, which is a shift from AI as a servant to a Buddhist-inspired “companion” model. She invites us to consider perspectives on deep learning as “emptying the machine” to let the world define its own patterns, and provides an inventive, nonlinear history of Chinese character input, which presents lessons in lateral thinking for modern UX. She argues that these works prove that language and philosophy dictate how we bound problems and that embracing these frameworks can unlock more resilient, culturally resonant interactions that English-centric frameworks often overlook.

Finally, in *Exit*, Scott Minneman and Renato Verdugo share with us

the Earth Species Project, which uses AI as an “aperture expander” to decode animal communication. By capturing the “quiet majority” of intimate vocalizations, researchers are finding structural patterns that mirror the complexity of human language. This represents the ultimate interface challenge: interspecies UX. For the HCI community, it pushes user-centered design beyond the boundaries of our species. It requires new frameworks for sensory modalities we do not possess and forces a move from building tools for “servants” to creating systems for “diplomacy” with nonhuman intelligence. It is a humbling reminder that we’re not the only agents on this planet with something to say.

Taken together, these contributions help us reflect on how we can use design to approach our complex society. Rather than seeking and optimizing for control in an unstable world, the authors in this issue explore ways of being sensitive, caring, and reflective. The goal isn’t to deny the challenges we face. Instead, these authors show how a more critical and grounded understanding is needed to shift perspective and how design can play a role in creating a persistent hope for a better future.

As co-editors in chief, we see this issue as a call for something new. A perspective that invites us to pause, reflect, and recognize the humans and even the more than humans in HCI, as well as to consider new approaches to design and integrate digital technologies in our society. It is a call that acknowledges and stays with the challenges of our time, and equips us with the more informed perspective we need to address real-world problems. Design, then, is not about achieving a specific goal. Rather, it’s an approach and a process for futuring and future-making.

As always, please consider submitting your work to *Interactions!*

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