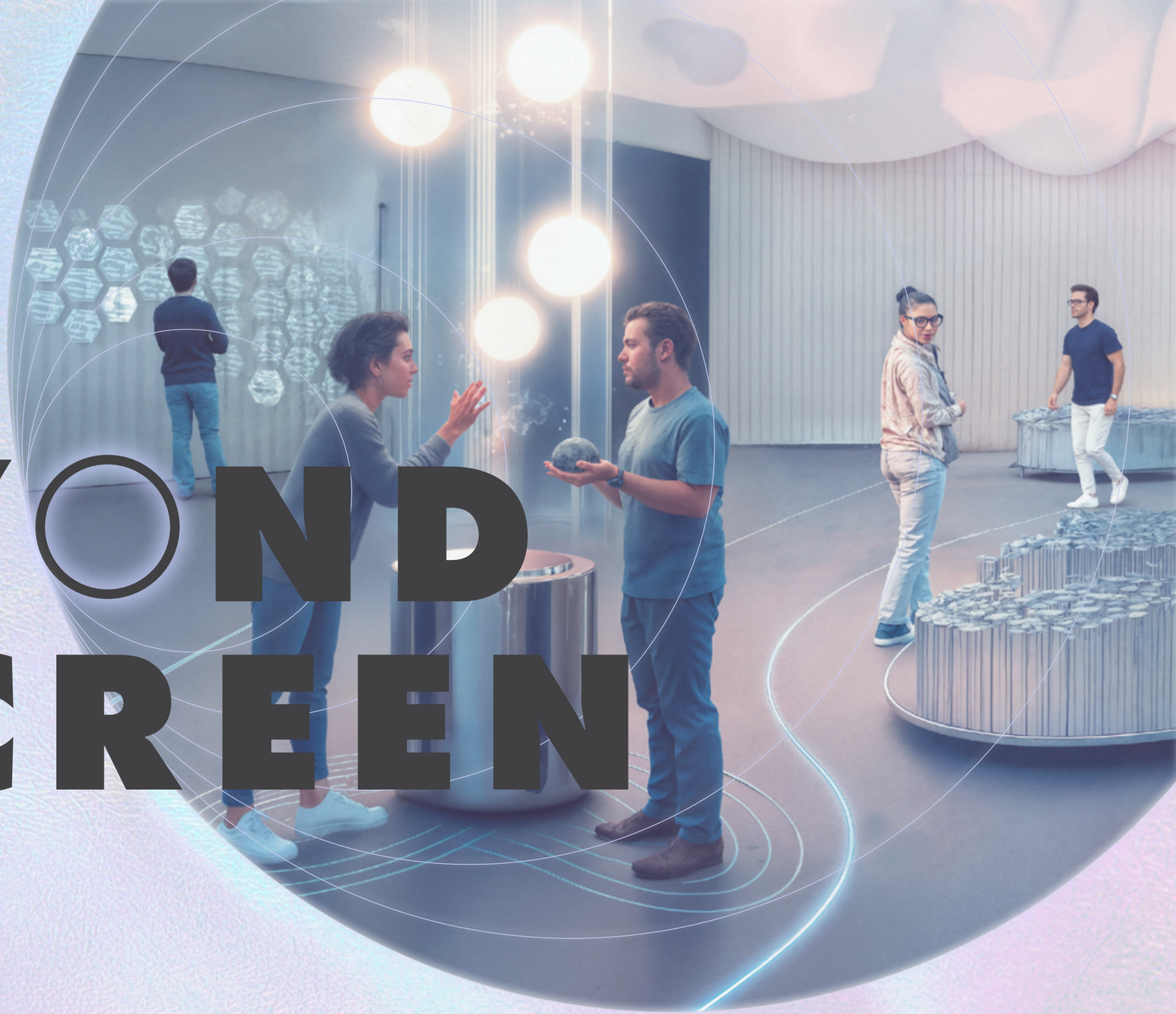
HumanX x Experiential Design

BUILT TO FEEL

AI BEYOND THE SCREEN



Intelligence is moving beyond screens, embedding itself into physical spaces, objects, and materials. This shift is opening up new ways to connect with users in the near future, not through overt interfaces, but through atmosphere, intuition, and emotion.

How can design harness AI not as the experience maker itself, but as the quiet intelligence that enables deeper, more human-centered experiences?

IA

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Built to Feel.
AI Beyond the Screen.

HumanX is a research initiative by IA Retail committed to reshaping the future of design by grounding innovation in a deep, nuanced understanding of consumer needs, behaviors and expectations.

In this edition, developed in collaboration with our Experiential Design practice, we explore how artificial intelligence is moving beyond screens to become an ambient, intuitive presence in physical space.

From retail to hospitality to workplace environments, we are envisioning a world in which AI can do more than streamline and maximize efficiencies. It can enhance atmosphere, support emotional connection, and enable more responsive, personalized experiences for consumers, guests, and employees alike.

Read on to discover how AI can be quietly embedded into space to create richer, more intuitive experiences across industries.

Craving Enrichment, IRL

AI's Next Frontier

What if the next evolution of AI won't be about retreating into digital realms, but about enriching the physical world we already inhabit?

As digital natives, we've grown **accustomed to online experiences that know us**—platforms that recommend our favorite products, respond instantly, and connect us with communities that share our interests. In the online world, convenience, personalization, and seamless interaction are the norm.

But step into the physical world, and those expectations are often unmet. Despite unprecedented technological advances, our real-world environments still feel static. The ability to receive tailored support, discover like-minded people, or feel genuinely supported by our surroundings remains, more often than not, unfulfilled.

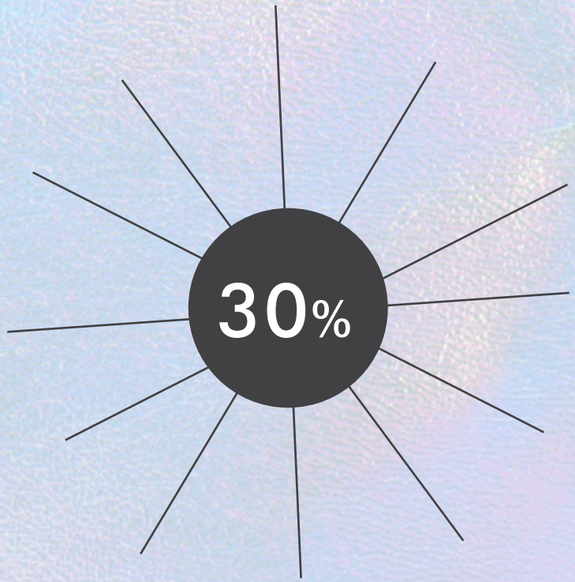
As AI moves off the screen and into the built environment, we see a new frontier of possibility. One that sees a future interplay of wearables, sensor technology, generative intelligence, and design to facilitate experiences that enhance what makes us human, on an uniquely individualized spectrum.

Craving Enrichment, IRL

Insights

73%

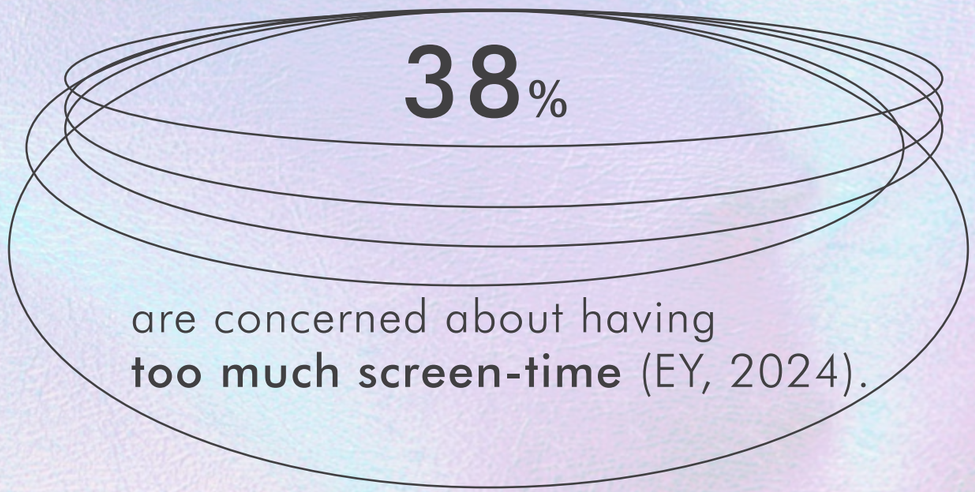
expect **better personalization** due to technological advances (Salesforce, 2023).



Fewer than 5% of U.S. adults own an **AI wearable**, but over half are aware of them—and up to **30% of those might buy one within a year** (Bain, 2024).

63%

of consumers seek brands that can provide multisensorial moments (Adobe, 2025).



are concerned about having **too much screen-time** (EY, 2024).

The BIG Idea

What if AI could *enhance the moment without becoming it*—aware, intuitive, and always in the background?

The rise of sensing technologies and AI-enhanced wearables is reshaping **how we engage with space—not through overt interaction, but subtle attunement**.

By moving intelligence into the background, these technologies enable environments to adapt intuitively to our emotional and physiological states.

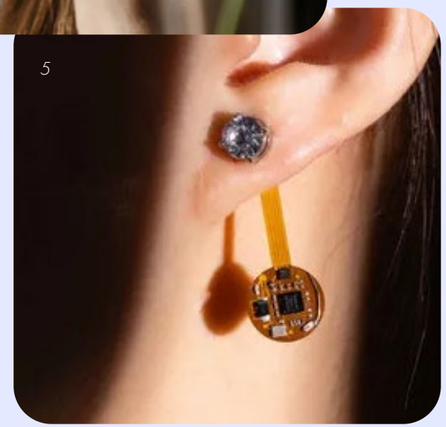
This interplay may see a new type of experiential design emerging, one that **blends nature, emotion, and perception into fluid, responsive encounters**.

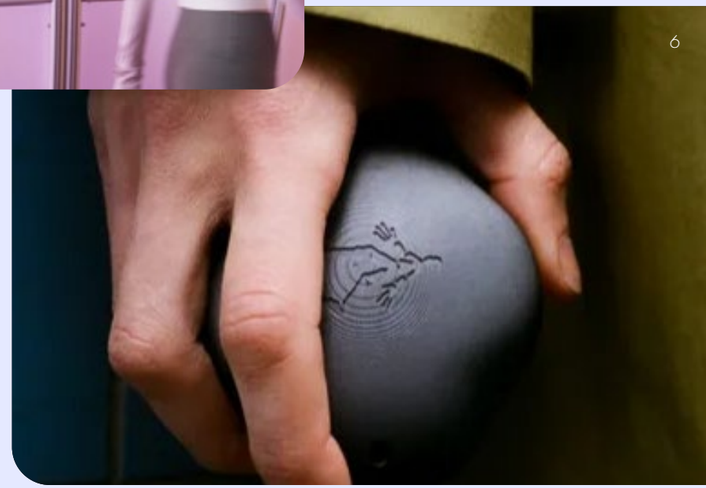
Informed by biophilic design and real-time biofeedback, environments could respond instinctively to those within them, creating experiences that feel less directed and more discovered. Movement becomes guided not by signage or screens, but by ambient cues such as light, sound, texture, temperature shaping and individualizing the journey.

As screens recede, tactile and sensory interfaces come forward, offering intuitive, non-intrusive pathways through space.

Instinctive Environments

Applications





BIOPHILIC MIMICRY
SENSORY EXPERIENCES

Using smart design to deepen our bond with nature, echoing biophilic rhythms to elevate the experience.

Inspiration: Estee Lauder partners with Exuud on a smart fragrance system that mimics flowers, releasing scent in precise, nature-inspired bursts to minimize olfactory fatigue.

SENSES MADE VISIBLE
BREATH AS COLLECTIVE ENERGY

Harnessing real-time biofeedback to create emotionally resonant brand experiences that respond to individual physiology.

Inspiration: Nike's BreathLab uses AI and thermal imaging to create 'aura' portraits from breath, as the space becomes a responsive organism reflecting collective energy, shifting the brand from movement to emotional wellness.

BIO-INTEGRATED JOURNEYS
CUTTING DIGITAL NOISE

A screen-free, haptic wearable guides users through curated journeys, offering calm, focused exploration without digital distraction.

Inspiration: Terra, by Modem Works and Panter & Tourron, replaces screens with AI and touch-based cues to guide users on mindful walking routes.

Instinctive Environments

Design Ideation

Spaces adapt to individual rhythms, seamlessly shifting between calming retreats and energizing displays based on each visitor's state.

Entryways offer gentle calibration through scent, sound, or touch, helping visitors ground themselves before entering.

Technology recedes from view, not to diminish its role, but to elevate human experience at its most instinctual level.

Haptic wearables or ambient cues (floor vibrations, soft pulses, airflow), direct movement through space without signage or screens.

Screen-free experiences dominate, with information embedded in materials, projected subtly, or delivered through spatial sound.

The BIG Idea

What if AI evolved *beyond efficiency to emotional intelligence* and deepened connection?

Nearly half of Gen Z report feeling more nervous speaking to new people than they did five years ago (Trendwatching, 2025). **As digital immersion increases, real-world connection continues to slip, opening space for brands and companies alike to support new forms of social confidence and community** (see our research on 'Designing for a Disconnected World').

Emerging forms of intelligence could play a quiet but powerful role in this shift. Wearables and big data segmentation, aided through AI, could 'nudge' people to connect to others nearby who share similar values, interests, or moods.

Subtle signals, like a gentle vibration or visual cue, could create low-pressure moments of recognition and interaction moving forward. At scale, intelligent systems could even trigger spontaneous micro-events or gatherings shaped by shared social preferences.

Translating intelligence into connection will demand careful design. Privacy, consent, and comfort will need to be deeply embedded. But done well, this opens new potential not just to deepen individual loyalty, but to become enablers of collective belonging.

Deepening Connection

Applications


7

8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SOCIAL SIGNALS
WEARABLES CONNECT

Everyday accessories embedded with discreet wearable tech offer subtle cues based on users' social comfort levels, helping facilitate connection without drawing attention.

Inspiration: Ray-Ban's Meta Smart Glasses incorporate AI and AR technologies to provide users with real-time notifications and information, enhancing social interactions without the need for handheld devices.

VALUES IN ACTION
LIVING WHAT WE BELIEVE

Real-time human behavior data is harnessed to create dynamic, interactive displays tailored to user engagement to tell stories of people and communities.

Inspiration: United Therapeutics light installation projects data gathered from the building's performance as real-time influence, allowing visual and interactive displays.
Inspiration: Uber's first impression spaces uses data analytics as in the built environment.

CO-CREATING LIVE MOMENTS
IMMERSIVE CULTURE

Unlocking the power of bringing people together, generative art can project users into an immersive place with style transfer.

Inspiration: HEXI's responsive wall is a fluctuating surface that interprets our movements and responds to shared human presence.

Deepening Connection

Design Ideation

Tech blends invisibly into everyday items, amplifying interaction without intrusion –offering ambient feedback and nuanced communication.

Everyday accessories with discreet wearable tech (like smart glasses or jewelry) signal users' social readiness, helping spark or soften interactions based on comfort.

Modular building blocks and spaces responsive of community needs, allowing for surge moments by nudges, bring people together.

Generative visuals evolve with collective presence, transforming crowd interactions into co- authored artistic expression.

“Any sufficiently advanced technology is indistinguishable from nature.”

Karl Schroeder

Design for Change

Spaces must be able to evolve moment to moment, and over time. Start small: prototype intelligent features in focused environments to test, learn, and scale with intention.

Build Responsive Systems

Design environments that sense and adapt. Use sensors, data flows, and modular infrastructure to let lighting, sound, layout, and content shift in real time—creating spaces that feel alive.

Hone in on Trust

As AI becomes more ambient, trust becomes the foundation of meaningful interaction. Prioritize transparency, accessibility, and human agency, ensuring people feel informed, empowered, and safe in intelligent environments.

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What will the next era of intelligence build?

Society is standing at a new frontier where innovation through artificial intelligence is both full of promise and layered with complexity. As designers and researchers, we see AI's true potential not in replacing what makes us human, but in enhancing our innate need for connection: to spaces, to others, to shared experiences.

The idea of AI enriching our environments without overtaking them is a compelling one, and still largely unrealized. To shape this future responsibly, we must experiment with the ways AI can be embedded not as a spectacle, but as a subtle interface: quietly responsive, ambient, and supportive of human needs without overwhelming them.

The spaces we design will need to evolve from static to responsive—shaped by real-time input, emotional nuance, and cultural intelligence. This evolution starts with experimentation in micro-spaces, leveraging AI as an invisible collaborator in the experience.

Brands and organizations who embrace this shift early, who test, prototype, and design for adaptability, will be best positioned to lead in the next era of human-centered AI design.

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