IJDST
ISSN 1630-7267
International Journal of Design Sciences & Technology

Special Issue of the International Journal of Design Sciences and Technology (IJDST)

Mediality and Environment: interfaces, design, and practices

Edited by Federico Biggio, Rosa Cinelli and Everardo Reyes

Call for contributions

The notions of "medium" and "environment" have long been central to the description of human capacities for perception and action. Building on ancient traditions of mediation (*metaxu*), environmental mediality today designates a regime in which the digital augments environments by inscribing layers of information and meaning into them. This perspective, grounded in information and communication sciences, mobilizes prototypes, interfaces and experiments. It also questions how data are produced, visualized, opened and narrated.

The interdisciplinary tradition of media and visual studies has often approached media through environmental metaphors. On the one hand, one can think of the paradigms of the "sphere": for example, from Lotman's semiosphere (1990) to Debray's mediaspheres (1992), and up to Sloterdijk's Spheres trilogy (2011). On the other hand, one can point to the aquatic metaphors found in the vocabulary of immersion (Chatonsky, 2012; Triclot, 2012; Pinotti, 2020) and navigation (Balpe, 1996). More broadly, the "environment" is conceived as a producer of ecologies (Fuller, 2005; Citton, 2014) and symbolic configurations that help us think through the social conditions of living together (D'Almeida, 2005; Lévy, 2013), as well as the relations between humans, nonhumans and more-than-humans (Coulbaut-Lazzarini and Couston, 2021; Grusin, 2015; Bridle, 2022; Hachette, Reyes, Bertrand and Biggio, 2022).

Despite the promises of media transparency often associated with hypermedia (Bolter and Grusin, 2000), the layering of media onto environments is far from reproducing *Umwelten* (von Uexküll, 1934) or shared habitable milieus. To McLuhan's thinking, which conceives media as extensions or amplifications of the body (McLuhan, 1964; Engelbart, 1968), one must add the posthuman turn (Haraway, 1985; Hayles, 1999; Braidotti, 2013), which reshapes the boundaries of subjectivity and sensibility. Yet the "vision machine" (Virilio, 1988; Zylinska, 2023) radically exceeds human perception. By transforming the *milieu* into a quantifiable entity, perceived more by the machine than by humans, capture technologies produce "operational images" (Farocki, 2004; Parikka, 2021) through enveloping interfaces that are not mere instruments of acquisition but act directly upon the world.

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Networked informational media (sensor networks, remote sensing, computational imaging, VR/AR/MR/XR) intensify the coupling between body and milieu. Let's consider, for instance, self-quantification, motion and eye tracking, or the continuous extraction of data. VR does not simply "immerse" the user in a "virtual" world; it takes possession of the world (Eugeni, 2021), producing a flow of information that closes the cybernetic feedback loop (Wiener, 1948; Triclot, 2014). Interfaces, dashboards and visualizations thus become genuine operators. They are instruments of control and cognitive supports for understanding the world, and oneself, in real time.

This conceptual and procedural knot has fueled sustained critique within critical media studies. Hansen (2015) and MacKenzie & Munster (2019) show how digital environments can exclude human perception from decision-making loops. By installing a "dissociated milieu" (Stiegler, 2007) – invisible yet prescriptive – environmental technologies re-activate the capture–destruction parallel discussed by Sontag (1977). Another critical issue also concerns the environmental impact of digital technologies – particularly artificial intelligence and LLMs – which shifts the question from visibility to the politics of representation: no longer only information, but also interfaces, their materiality, and the infrastructures that support them (Gabrys 2016; Gomez-Mejia 2014). These media, thus, are not neutral: they entail political, societal and ecological costs associated with generative media (Crawford, 2021). Hence the need to make explicit what these systems render invisible – notably biases, latent spaces, materiality and the environmental impacts of technologies – through protocols of explication such as research-creation and OSINT (open-source intelligence) practices.

Environmental media reconfigure our practices and lead us to reconsider the methods, protocols and tools of information, communication and meaning-making. This special issue of the **International Journal of Design Sciences & Technology** (IJDST) examines the ways in which these media conceptualize and enact the convergence of medium and milieu.

We invite contributions addressing, but not limited to, the following areas:

- Theories of environmental mediality: conceptual approaches and theoretical objects for thinking the convergence between medium and milieu.
- Media ecology: the role of media dispositifs and infrastructures in constructing symbolic, political and affective/sensory ecologies of living together.
- Machinic vision, operational images and environmental AI: technologies for the algorithmic computation of environments and their epistemological, aesthetic and political effects.
- Posthumanism, more-than-human and nonhuman: reconfigurations of relations through capture, automation and machinic vision technologies.
- Sensor networks, environmental data and quantification of the milieu in art-science contexts: quantified self, remote sensing, environmental datafication and data extraction.
- XR/VR/AR/MR interfaces and "extended" realities: virtual environments as technologies of occupation, capture and transformation of the world.

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- Visual truth and image-based evidence in regimes of environmental media: Forensic Architecture, OSINT and data journalism.
- Research-creation approaches: artistic experimentation, information design and the representational rhetorics of data and environmental experience.

Link to bibliography:
https://paragraphe.univ-paris8.fr/+AAC-Numero-special-de-la-revue-IJDST-Medialite-et-environnement-interfaces+

Timeline

30 April 2026 – **abstract** submission deadline
11 May 2026 – notification to authors about abstracts
7 September 2026 – **full paper** submission deadline
11 September 2026 – 25 November 2026 – revision period
11 December 2026 – publication of the special issue

Word Length

Abstract length: 500 - 600 words.
The abstract should include indications of a minimum reference bibliography.
Full paper length: 8000 - 10.000 words
Images: up to 5 images (color or black and white)

Scientific Committee

IJDST
ISSN 1630-7267
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About IJDST

The International Journal of Design Sciences and Technology (IJDST) is a peer-reviewed, multidisciplinary journal dedicated to the advancement of design knowledge. It focuses on how information and communication technologies and other advanced technologies transform design theories, methods and practices across a wide range of fields, including architecture, urban planning, industrial design and related disciplines.

IJDST pays particular attention to issues of sustainability and "green design", understood through the triple bottom line of environmental impact, social responsibility and economic viability. The journal welcomes theoretical, methodological and empirical contributions that clearly articulate research questions, methods and analyses, and that link design research to its social, technical and educational implications.

Founded in 1991 and published by Europia (ISSN 1630-7267), IJDST provides an international forum for debates on the sciences and technologies of design. Since 2016, it has been accredited by AERES and by the French National Council of Universities (CNU 71, Communication and Information Sciences).