

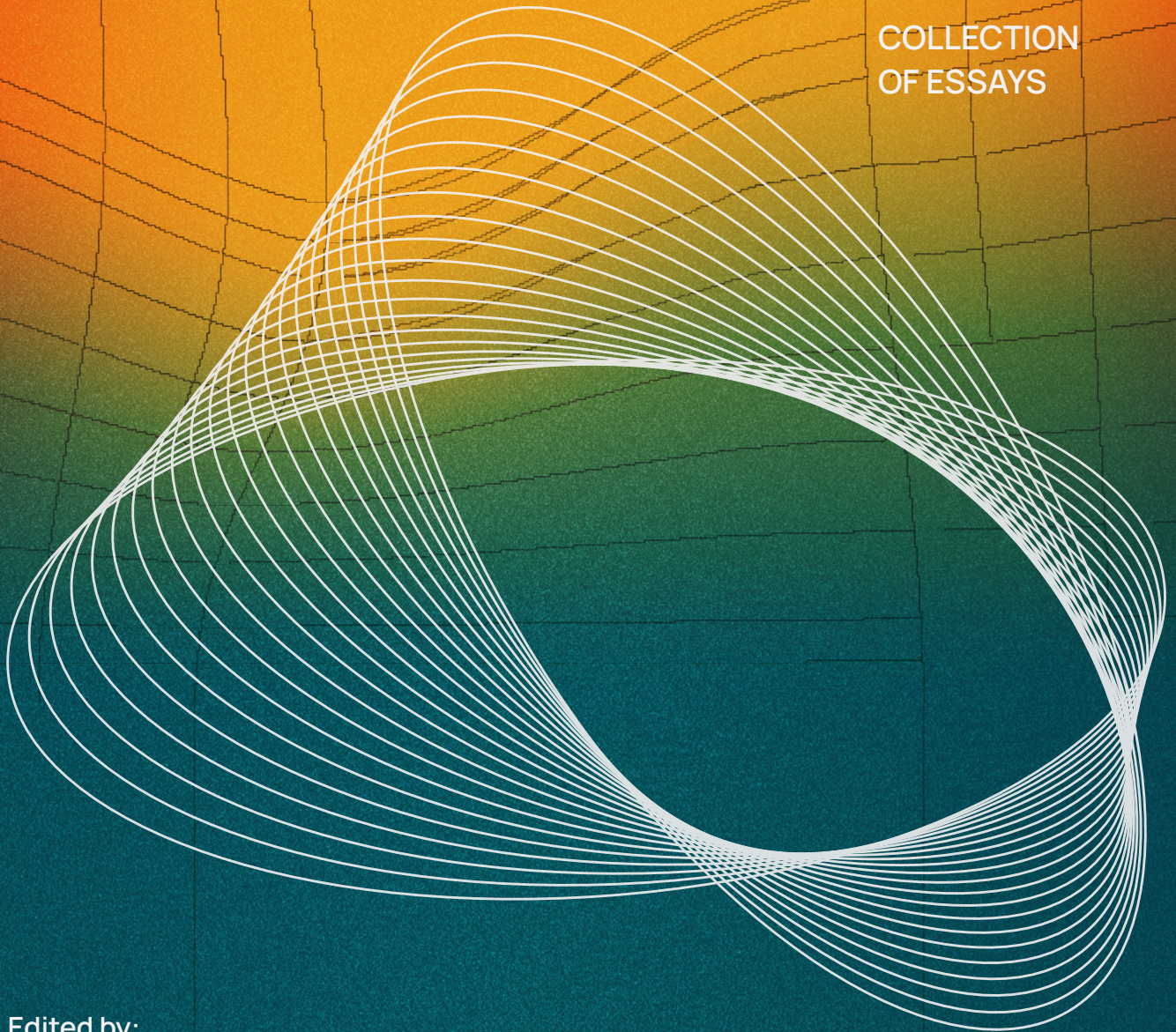
2025

Reimagining AI

*For Environmental Justice
and Creativity*

COLLECTION
OF ESSAYS

Edited by:
Jess Reia | MC Forelle | Yingchong Wang



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REIMAGINING AI

For Environmental Justice and Creativity

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REIMAGINING AI AS CULTURAL INFRASTRUCTURE:

Bridging Heritage, Urban Life, and Digital Responsibility

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Artificial Intelligence (AI) permeates academic, policy and economic debate. The United States is leading the critical discussion on its multilayered risks and perspectives, and yet, AI's cultural dimension remains underexplored. In contrast, Europe - and Italy in particular - has taken a slower, more cautious approach, advocating for AI that prioritize societal

well-being over purely economic objectives. Europe has long emphasized the integration of digitalization with cultural policy, producing guidelines to ensure technology aligns with values of trust, creativity, adaptability, and social responsibility.¹ The European Union's AI Act exemplifies this vision, aiming for a human-centric and ethical use of AI.² However, the Act rarely addresses culture explicitly - a clear oversight given AI's reliance on cultural inputs such as texts, images, and values that shape its design and application. This omission expresses a gap in AI policy: the failure to consider cultural preservation, diversity, and local traditions, which often resist easy incorporation into predominantly techno-optimistic framework.

As scholars in urban technology, it is our responsibility to delve deeper into AI's role in cultural heritage and urban environments. We must explore and understand the social responsibilities associated with AI-driven infrastructures and test frameworks that support cultural diversity, encourage public participation, and uphold local governance.

AI in Urban Spaces: beyond a Passive Tool

AI offers numerous benefits for the valorization of cultural heritage. It enhances access to cultural resources, supports research, creates "memory insurance policies" for artifacts at risk of destruction, and adapts cultural content to evolving social contexts, fostering cultural continuity. However, as AI increasingly shapes cultural narratives, critical questions about accountability arise. Who bears responsibility when algorithmic decisions exacerbate social inequalities? Who is accountable for potential cultural polarization? Addressing these issues demands a clear framework for accountability in AI applications, particularly in urban environments where AI is evolving from a passive tool to an active agent of change.

Embedded AI systems collect data and inform public sphere dynamics, transforming cities into experimental grounds for AI-human interaction³ without clearly defined boundaries for action. Urban AI plays a vastly more influential role, directly intervening in shaping social dynamics, cultural expressions, and even political engagement. As an urban agent, AI's influence over urban space can alter local identities and public sphere outcomes. AI-driven digital platforms are not neutral entities; they reflect the ideologies

and power structures governing their design and deployment. Acting as political actors, these platforms influence information flows, public opinion, and even social movements, sometimes surpassing traditional governance in their societal impact. As a consequence, such systems risk exacerbating socio-political divides, privileging certain voices while marginalizing others. Data-driven urban regeneration can overlook local structural vulnerabilities, imposing one-size-fits-all models that fail to consider unique socio-political contexts. This evidence calls for frameworks that foster self-governance and draw from deliberative democracy encouraging local control over cultural narratives.

Visual tools, such as interactive and locally contextualized AI-generated images, can aid this effort by more effectively conveying urban and cultural nuances than abstract concepts. However, standard AI-generated imagery often risks homogenizing cultural representation, depicting similar architectural and commercial patterns that may not reflect local diversity. Here, an art-science approach can provide greater nuance. By involving artists in AI development, more inclusive visual representations of heritage can emerge - images that resonate with diverse cultural audiences. Artistic collaborations can introduce symbolic choices that balance simplicity and detail, avoiding the distractions of excessive digital realism. This approach can make AI-generated content both familiar and universal, enriching public understanding of local heritage while preserving its distinctiveness.

Civic Digital Twin: a High-Stakes Project for Local Governance

To counteract these risks while leveraging an art-science collaboration, a possible model is the “Civic Digital Twin”. As demonstrated in Bologna (Italy) it is a project that combines local stakeholder collaboration to integrate citizen engagement into AI-driven urban planning. This project emphasizes two dimensions: focusing on the sociotechnical processes of reproducing cities rather than just technical models and recognizing the uniqueness of local urban cultural heritage instead of treating cities as abstract entities. This project considers AI as a “boundary object,” operating across multiple contexts and serving as a site for experimentation and cross-disciplinary collaboration. By exploring alternative possibilities in both research and practice, the project shifts AI applications from passive observation to active societal participation.

The Civic Digital Twin sees AI as a form of relational infrastructure that can either exploit or bridge cultural divides, influencing who is included or excluded in public life. This digital platform reimagines urban landscapes, framing AI as an orientation tool—a “navigation map” for public life—that can critically evaluate its own role in promoting equitable access and civic representation. Cultivating this future literacy will transform uncertainty into a resource, enabling communities to co-create inclusive and resilient urban ecosystems.

By positioning AI as an essential and inclusive public infrastructure, society can engage in conversations that not only support technological advancement but also prioritize cultural diversity, civic engagement, and social responsibility.

ENDNOTES

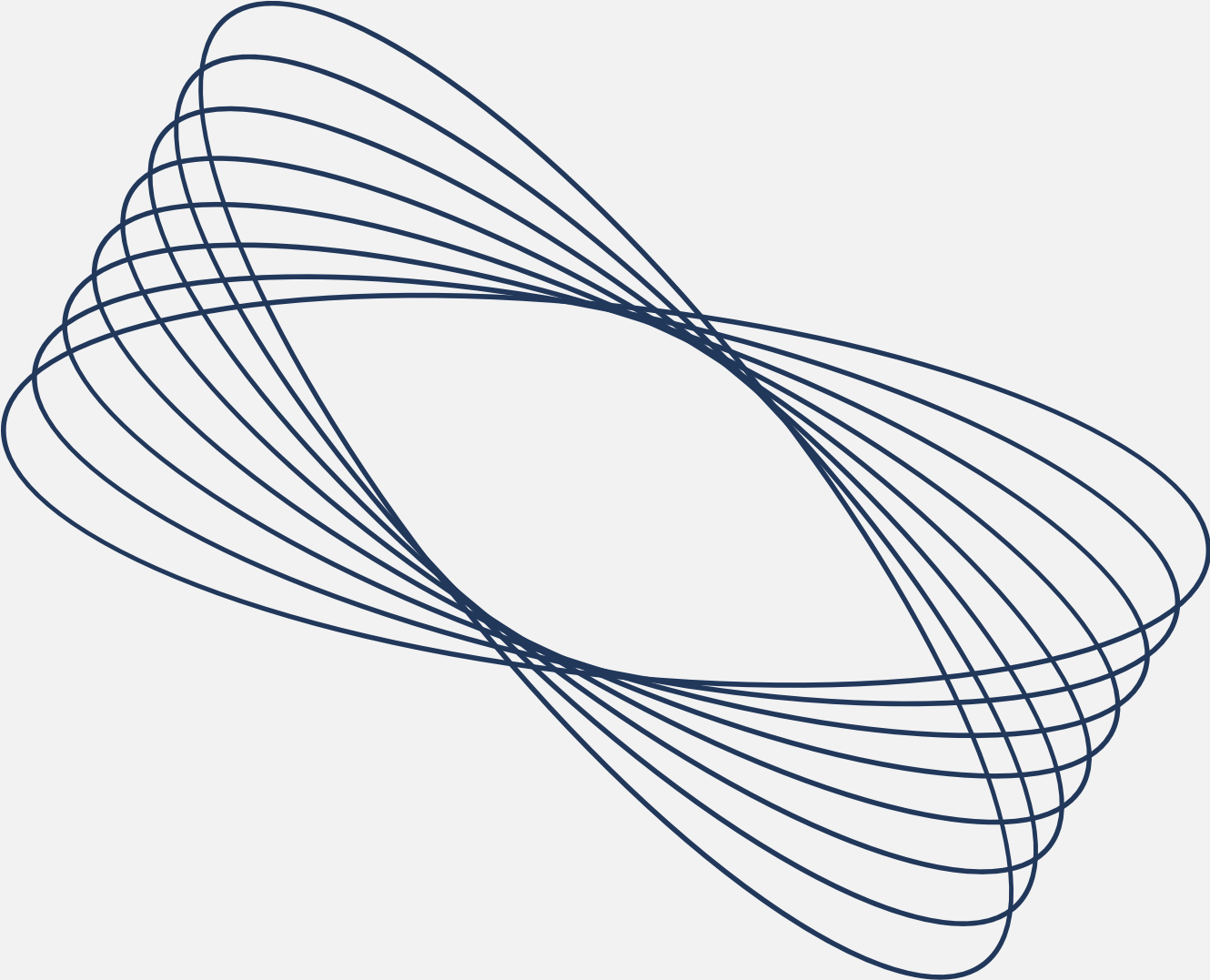
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3 Floridi, L. et al. (2018). AI4People—An Ethical Framework for a Good AI Society. *Minds and Machines*.

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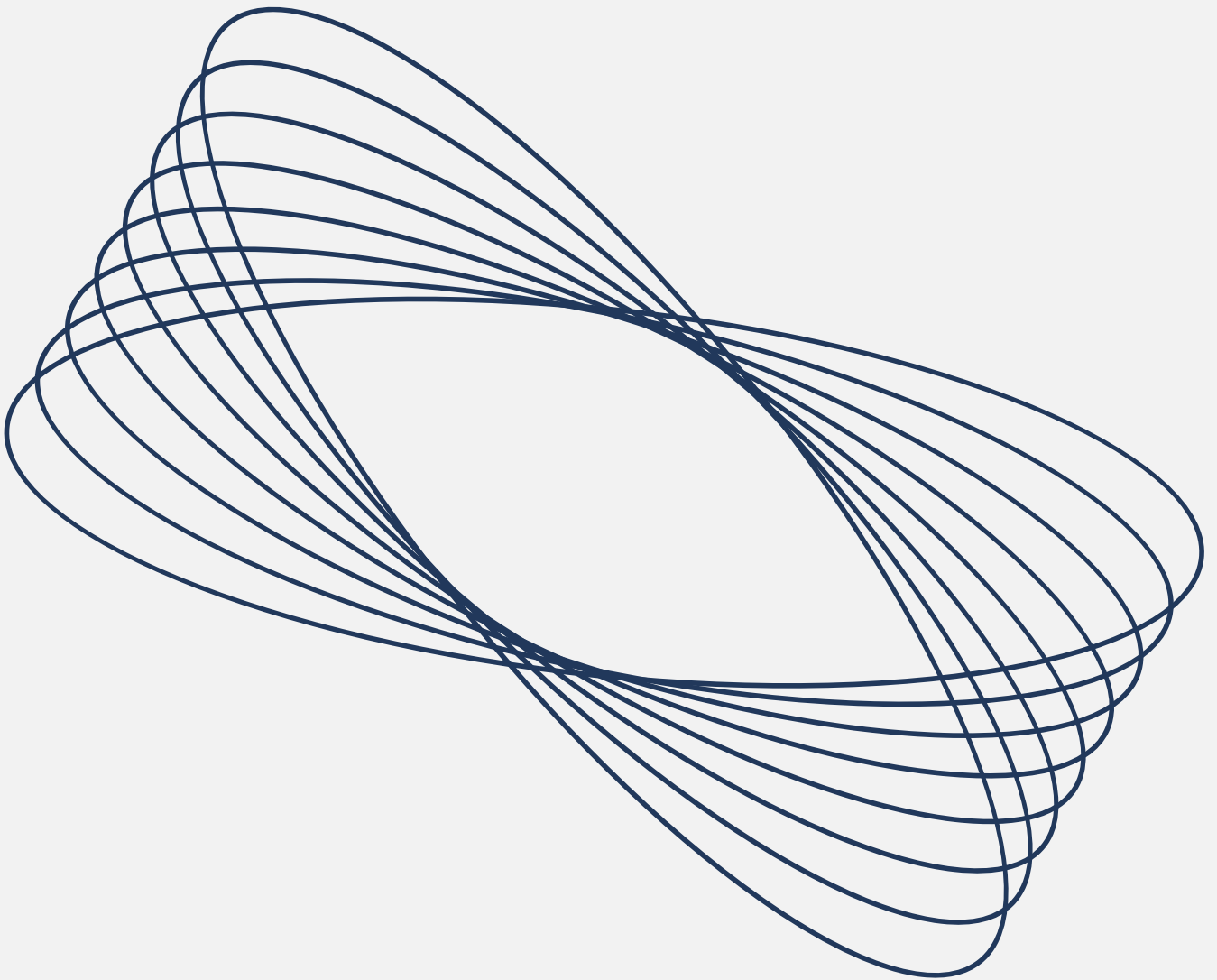
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