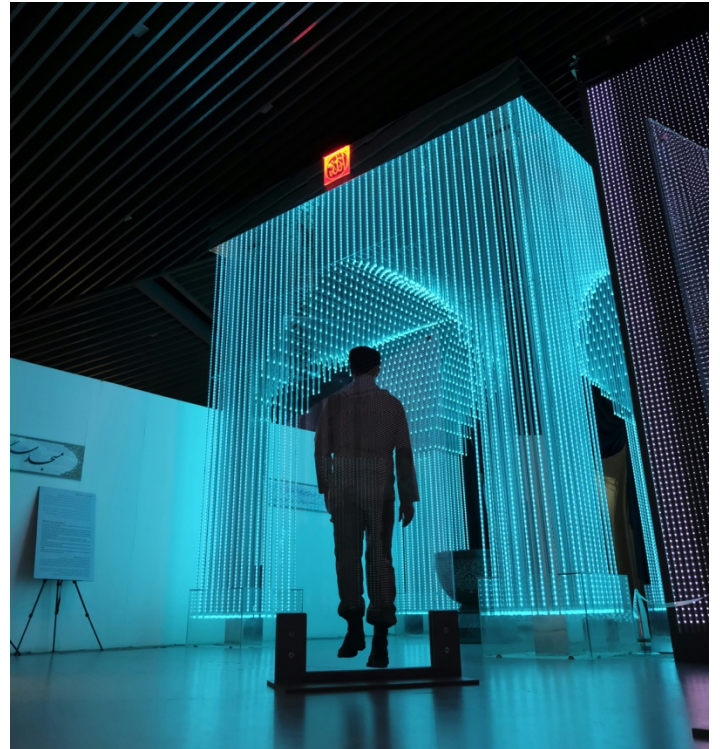# AN-ICON

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Liberty on parole? Challenges in interactivity

Edited by Pietro Montani and Andrea Pinotti

Deadline for full articles: July 15th, 2024

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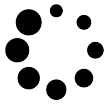
Liberty on parole? Challenges in interactivity

Edited by Pietro Montani and Andrea Pinotti

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In his influential essay *The Inevitable* (2016), Kevin Kelly holds interactivity among the major forces that will shape the near future. He maintains that "in the coming 30 years, anything that is not intensely interactive will be considered broken." Touch screens, smart objects and domotics, interactive television series, or adaptive AI-generated video-games, just give us a hint of how our daily experience is going to be transformed.

The concept of interactivity has been investigated in several different fields, in the belief that it is key to the way we inhabit the world in a broad sense. Just to make some examples, one may think about Gibson's theory of affordances (1979) and its developments; the model of the Extended Mind (Clark & Chalmers 1998) and the Material Engagement Theory (Malafouris 2013); or Enactivism, according to which our interactions with our environments, or other organisms, constitute the grounding and the primary expression of cognition itself (Thompson 2007, Gallagher 2020).

The advent of electronic media, though, has made the concept of interactivity even more pervasive. Indeed, since their first appearance, electronic media have been defined as "interactive", in contrast to analogic apparatuses. The concept of interactivity aimed to describe both the ability of electronic interfaces to respond to a user's input, and the way the user could interact with media and devices, choosing which path to follow, manipulating, or generating new content.

In the field of narratology, scholars have highlighted the advent of new forms of interactive storytelling (Murray 1997) and more recently of "Interactive Digital Narrative" (Koenitz, Ferri, Haahr, Sezen, & Sezen, 2015), concerning works by writers, artists and game designers. Compared to the traditional modes of interaction between the reader and the text – even when considered as non-passive (Eco 1979) – video games have been defined as "ergodic" texts, i.e. texts that require an effort from the reader/player (Aarseth 1997).

However, since any reception entails imaginative integrations and performative responses (Montani 2022), some scholars have claimed that interactivity is too broad a concept to account for the specificity of digital interfaces and should therefore be discarded (Manovich 2001).

Besides, the relation of reversibility and reciprocal feedback, brought about by electronic media and later by the implementation of artificial intelligence and linked to the concept of interface as well as of "interaction design", has pushed scholars in different fields to account for the agency of digital images (Hansen 2014), of technologies and media (Farocki 2004, Paglen 2014), and, more broadly, of non-human entities (Grusin 2015), as well as to reframe them in operational terms (Hoel 2018; Parikka 2023). A lot of attention has been paid to human-computer interaction, so as to develop user-friendly interfaces that give the illusion of no technical mediation (Weiser 1991). Today, digital technologies have become so ubiquitously present in our environment that they almost constitute the condition of possibility of our experience and interaction with the environment (Marras & Mecacci 2015).

Lastly, with the advent of Virtual and Augmented Reality and Artificial Intelligence, the notion of interactivity has conquered yet another field of application. In fact, several properties of VR-, AR- and AI-based environments may be explored by recurring to the notion of "interactivity": in fact, such interactive environments offer extremely lifelike sensorimotor affordances; they involve the users in participatory creative processes, as happens in "virtual storytelling" (Dooley 2017, Bucher 2018); they include interactions with quasi-subjects known as "avatars" (Pinotti 2020), be they proxies of human subjects or AI-assisted characters; they pervasively spread in the domain of AI digital assistance (Pizzi, Scarpia & Pantano 2021), and in text-to-image and image-to-text models in AI-based programs like Midjourney, DALL-E, Stable Diffusion (Somaini 2023); they characterise procedurally generated open world universes (as is the case of video games such as *No Man's Sky*).

VR, AR and AI not only afford new types of interactions with the environment, but they also provide the possibility of an intersubjective interactivity in a shared virtual world that sometimes results in the creation of
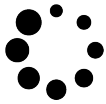
new collective subjects, with shared/common perception, intentionality and needs (Liberati 2016). Importantly, both these spheres of interactions are regulated by strictly technical conditions, which inescapably shape and reverberate on the users' experience. In this regard, the argument of interactivity cuts both ways, inasmuch as virtual interfaces also come to limit and constrain the user's freedom (Chandrasekera, Fernando, & Puig 2019); or the degree and type of manipulability of a given environment and the objects it contains. This perspective revives in the context of new digital technologies a classic theme of philosophical reflection: that of free will. To what extent does interactivity emancipate the user and redefines the roles both of producer and consumer? To what extent is interactivity outlined as yet another articulation of that inevitable observance of rules (Crary 1990) that marks by definition every relationship of the observer with the media with which he interacts? To what extent does the gained freedom remain a form of freedom conditioned by structural constraints, a liberty on parole?

The issue particularly encourages proposals concerning:

- Theoretical interpretations of interactivity;
- Interdisciplinary and/or multi-methodological approaches to interactivity;
- Interactivity in VR, AR, XR, AI;
- Interactivity in visual arts, cinema, tv series, video-games, and other digital media;
- Interactive storytelling;
- Theories of active spectatorship;
- Analysis of emblematic cases and innovative works leveraging on interactivity;
- Interaction with avatars and props in digital and virtual environments.

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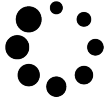
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