

I SAGGI DI LEXIA

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Direttori

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Aprire una collana di libri specializzata in una disciplina che si vuole scientifica, soprattutto se essa appartiene a quella zona intermedia della nostra enciclopedia dei saperi — non radicata in teoremi o esperimenti, ma neppure costruita per opinioni soggettive — che sono le scienze umane, è un gesto ambizioso. Vi potrebbe corrispondere il debito di una definizione della disciplina, del suo oggetto, dei suoi metodi. Ciò in particolar modo per una disciplina come la nostra: essa infatti, fin dal suo nome (semiotica o semiologia) è stata intesa in modi assai diversi se non contrapposti nel secolo della sua esistenza moderna: più vicina alla linguistica o alla filosofia, alla critica culturale o alle diverse scienze sociali (sociologia, antropologia, psicologia). C'è chi, come Greimas sulla traccia di Hjelmslev, ha preteso di definirne in maniera rigorosa e perfino assiomatica (interdefinita) principi e concetti, seguendo requisiti riservati normalmente solo alle discipline logico-matematiche; chi, come in fondo lo stesso Saussure, ne ha intuito la vocazione alla ricerca empirica sulle leggi di funzionamento dei diversi fenomeni di comunicazione e significazione nella vita sociale; chi, come l'ultimo Eco sulla traccia di Peirce, l'ha pensata piuttosto come una ricerca filosofica sul senso e le sue condizioni di possibilità; altri, da Barthes in poi, ne hanno valutato la possibilità di smascheramento dell'ideologia e delle strutture di potere. . . Noi rifiutiamo un passo così ambizioso. Ci riferiremo piuttosto a un concetto espresso da Umberto Eco all'inizio del suo lavoro di ricerca: il "campo semiotico", cioè quel vastissimo ambito culturale, insieme di testi e discorsi, di attività interpretative e di pratiche codificate, di linguaggi e di generi, di fenomeni comunicativi e di effetti di senso, di tecniche espressive e inventari di contenuti, di messaggi, riscritture e deformazioni che insieme costituiscono il mondo sensato (e dunque sempre sociale anche quando è naturale) in cui viviamo, o per dirla nei termini di Lotman, la nostra semiosfera. La semiotica costituisce il tentativo paradossale (perché autoriferito) e sempre parziale, di ritrovare l'ordine (o gli ordini) che rendono leggibile, sensato, facile, quasi "naturale" per chi ci vive dentro, questo coacervo di azioni e oggetti. Di fatto, quando conversiamo, leggiamo un libro, agiamo politicamente, ci divertiamo a uno spettacolo, noi siamo perfettamente in grado non solo di decodificare quel che accade, ma anche di connetterlo a valori, significati, gusti, altre forme espressive. Insomma siamo competenti e siamo anche capaci di confrontare la nostra competenza con quella altrui, interagendo in modo opportuno. È questa competenza condivisa o confrontabile l'oggetto della semiotica.

I suoi metodi sono di fatto diversi, certamente non riducibili oggi a una sterile assiomatica, ma in parte anche sviluppati grazie ai tentativi di formalizzazione dell'École de Paris. Essi funzionano un po' secondo la metafora wittgensteiniana della cassetta degli attrezzi: è bene che ci siano cacciavite, martello, forbici ecc.: sta alla competenza pragmatica del ricercatore selezionare caso per caso lo strumento opportuno per l'operazione da compiere.

Questa collana presenterà soprattutto ricerche empiriche, analisi di casi, lascerà volentieri spazio al nuovo, sia nelle persone degli autori che degli argomenti di studio. Questo è sempre una condizione dello sviluppo scientifico, che ha come prerequisito il cambiamento e il rinnovamento. Lo è a maggior ragione per una collana legata al mondo universitario, irrigidito da troppo tempo nel nostro Paese da un blocco sostanziale che non dà luogo ai giovani di emergere e di prendere il posto che meritano.

Ugo Volli

Meaning–Making in Extended Reality

Senso e Virtualità

edited by

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Contributes by

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Juan Chen, Kyle Davidson, Victoria Dos Santos, Ruggero Eugeni
Gianmarco Thierry Giuliana, Mirko Lino, Alexiev Momchil
Claudio Paolucci, Mattia Thibault, Oğuz 'Oz' Buruk
Humberto Valdivieso, Ugo Volli, Nannan Xi, Zhe Xue





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Extended Reality, Nothing New?

FEDERICO BIGGIO*, VICTORIA DOS SANTOS*, GIANMARCO THIERRY GIULIANA*

The topic of a computer–mediated and altered reality has been central in the humanities at least from the 1960s on. Technology such as Heilig’s *Sensorama* and Sutherland’s *Head–Mounted–Display* have since inspired thinkers inquiring on their philosophical, cultural, and social impact. Scholars in this area have rediscovered the connections between humanities and social sciences, on one hand, and cognitive– and neurosciences, on the other, connections that have characterized the reflection on computationalism and artificial intelligence since the 1980s (Marr, 1982; Minsky, 1985).

Since Baudrillard’s 1981 *Simulacres et Simulations*, then, academic articles and books about the impact of technology on this mediation, particularly on virtual realities, have proliferated. Already in the 1990s, Jonathan Steuer defined “Virtual Reality” (1992) and Tomas Maldonado dealt with it from a philosophical perspective (1994). Decades later, the evolution of these technologies is still at the center of the debate on how the real has changed and keeps changing: a topic so widespread that, six years ago, was made the object of the *Oxford Handbook of Virtuality* (Grimshaw, 2014). Is there really something new to say? The editors of the present collection believe so, for three main reasons.

First, both the quality and the distribution of technologies augmenting or virtualizing reality has drastically changed in the last five years: the headset for virtual reality analyzed in *Remediation* (Bolter & Grusin, 1999) is simply no longer the same and the experience of a second reality in

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VR has profoundly changed. 2020s VR and AR are, in fact, about artistic creation, healthcare, professional training, tourism, religion, social interactions, and much more: the question bears no longer on *whether* they can have an impact on society but already on *how* are they having it. Digital technology is currently becoming *ubiquitous* (Weiser, 1991) and the two worlds cohabit in a high-tech environment of existence where the modern concept of reality seems to be disrupted. Although philosophy has already diffusely analyzed this evolution (Montani, 2014; Dal Pozzo, Negri & Novaga, 2018), it is still rare to find, in the recent scientific literature, a unified perspective correlating the specificities of these technologies with such (supposed) conceptual shift.

In this regard, semiotics is the right discipline to fill the gap, since several semioticians (Bettetini, Casetti, Eco, Eugeni, and Metz, among others) have already faced the issues raised by the previous ‘new’ media by looking at their multiple facets and inquiring on the interconnection between different dimensions of meaning-making (linguistic, cognitive, sociological, and so on). Besides, semioticians have previously faced some of the cultural issues related to the digital era (Volli, 2007; Marino & Thibault, 2016; Leone, 2011 & 2019) and have already inquired on meaning-making in digital media (Meneghelli, 2007; Cosenza, 2014; Danesi, 2016). Finally, semiotics — which can be defined as the science of the inevitable mediation of reality and meaning (Paolucci, 2010) — has since long conceived the mind as extended (Konderak, 2018) and has characteristically considered virtuality as a central stage in the narrative process of meaning-making and as one of the three modes of semiotic existence (Greimas & Courtés, 1979; Fontanille, 2018).

Secondly, as a consequence of the previous point, the social discourse about VR and AR is changing together with the conception of what is actually meant by “virtual” and “augmented”. The issue is no longer about cyber-enthusiastic theories or futuristic utopias but about how, due to the mediation of computational media in almost all human domains, technologies such as VR and AR are being popularized in people’s daily lives, begetting profound experiences, new forms of social interactions, and emotions stemming from human-computer interaction. In respect to this, there is not only a lack of literature in the humanities about how the new applications of VR and AR are representing the world but also on how, if that is the case, these technologies and our contemporary technological

environment are having an impact on our view of the world. However, if, on the one hand, these technologies are part of an apparently everchanging mediatic panorama, on the other hand, the theoretical tradition that tackled with extended reality could negate an authentic “paradigm shift” and highlight the absence of any real “newness” and “disruption” claimed by the marketplace. Additionally, contemporary technologies that extend our reality have their roots in the past visual culture (Pinotti & Somaini, 2016), and they are often designed as classic hypertextual and cybertextual experiences (Aarseth, 1997; Landow, 2006). In fact, many of their characteristics were first found in digital games and computational artifacts (Bogost, 2007). Yet, the existence of recent scientific literature on the impact of VR on empathy (Herrera *et al.*, 2018) and beliefs (Murphy, 2017) reveals a new trend and deserve attention.

Therefore, this volume was conceived on the basis of the idea that humanities can highlight the points of continuity and rupture with previous media and simultaneously study the instruments extending our reality both as products and producers of a cultural discourse.

Finally, the concepts used to describe both the effects and the characteristics of extended reality have created an inevitable metalinguistic issue. Jaron Lanier coined the expression “Virtual Reality” in 1989 as an umbrella term to designate all the virtual projects developed at that time, referring particularly to computers. The term “virtuality”, however, is anything but trivial. In recent literature it is found, for instance, in titles such as *Real Virtuality. About the Destruction and Multiplication of World*, which does not focus on digital technologies (Gehmann & Reiche, 2014). In the philosophical field, moreover, Pierre Levy has referred to “virtuality” as to a mode of existence that is not opposed to the “real” but to the concept of “actuality”. That was necessary in order to examine a series of emerging phenomena in the digital world that cannot be understood as pertaining to another ontological dimension. The same is true for the notion of “augmented reality” (Engelbart, 1962; Manovich, 2006), which could be traced back to the invention of the first devices for human–computer interaction; or for “extended reality”, which was already present in McLuhan’s idea of media as “extensions of man” (1964). Finally, the idea of a reality processed and experienced through an extended and augmented mind is absolutely central in cognitive sciences (Clark, 2008; Malafouris, 2016), which have defined human beings as “natural–born cy-

borgs” (Clark, 2004) and put the focus on the idea of “prosthesis” which is also fundamental from a semiotic perspective (Paolucci, 2020). Hence, it was believed that a new inquiry on these key notions was much needed in order to explain both the meaningfulness experienced through such media and how the opposition between real and virtual is changing in our culture.

The present volume investigates these specific technologies by including in the picture also everything that is behind and beyond them. It is, thus, at the same time, about the concrete and unique meaning-making involved in the interaction with these media and about the meaning-making of what is currently conceived and defined as the extended, virtual, and augmented experience.

The adopted semiotic perspective, however, was not intended to exclude other disciplines; on the contrary, scholars with different approaches were invited to offer the reader a more complete point of view on the issues at stake. Moreover, semioticians in the collection also adopt a strong interdisciplinary attitude, in keeping with the cooperative attitude of most contemporary semiotics when it tackles, together with other disciplines, the most relevant themes of our social and cultural context. Finally, all the authors of the book share the conviction that the technologies that extend our reality and influence our conception of it can be understood only in context. That is why each of the contributions highlights a different facet of the topic and all of them contribute to a cooperative and multifaceted reflection. Contributions are divided into two sections, the first one being more theoretical and the second one focusing on the concrete examination of texts and case studies, all related to how technologies are both representing and changing the cities and spaces we live in.

The opening article is Ugo Volli’s “Archeologia Semiotica del Virtuale” which investigates on the history and the semantic of the term “virtual”. This critical investigation sheds light on the most important topics related to these technologies, such as the ones of immersion and experience. Moving in and out between semiotics and philosophy, Volli arrives at semiotically defining the virtual through a number of characteristics and offer to the reader a new and precious perspective to understand our own relation with the real through the mediation of technology.

In the second contribution “Una percezione macchinica: realtà virtuale e realtà aumentata tra simulacri e protesi dell’enunciazione” Claudio Paolucci examines a common features of both Virtual, Augmented and Mixed Reality: the dominant role of prosthesis and audiovisual language. The author here focuses on the two different logics, one of the simulacrum and one of the prosthesis, that are behind the characteristic sensorial and cognitive involvement offered by these technologies. He thus highlights their semiotic specificities as simulacral prostheses and demonstrates how VR and AR must be understood through a theory of enunciation.

The article written by Valentino Catricalà and Ruggero Eugeni “Technologically modified self-centred worlds. Modes of presence as effects of sense in virtual, augmented, mixed and extended reality” then follows, with a comprehensive exam “of different forms of extended reality (virtual, augmented and mixed reality)” understood as manifestations of “technologically modified self-centered worlds (Umwelte)”. Looking at both the technical and interpretative specificities of these technologies, the authors focus on the concept of presence and provide an interesting new classification of the media related to the idea of an extended reality.

The fourth paper is Federico Biggio’s “Towards a Semiotics of Augmented Reality” in which he proposes a taxonomy of distinctive aspects detectable in each augmented reality application, with a particular focus on the meaning-making processes derived by its actual adoption in popular media context. Adopting a mediological and semiotic approach, this paradigmatic attempt aims to propose a unified understanding of the phenomenon, both the cultural as well as the socio-technical one.

In “Deconstructing the Experience. Meaning-Making in Virtual Reality Between and Beyond Games and Films” Gianmarco Giuliana and Momchil Alexiev then focus on the specific technology of Virtual Reality by examining the similarities and differences on an experiential level between VR, digital games and movies. Unifying the perspectives of a semiotician and an artist, this contribution is a strongly interdisciplinary work that considers the different dimensions of the VR experience in a unifying perspective about the specificity of meaning-making in Virtual Reality and which takes consequently part in the contemporary debate.

Still focusing on Virtual Reality, in “The Digital and the Spiritual: Validating Religious experience through Virtual Reality”, Dos Santos analyses how virtual worlds are acceptable spaces to perform and experience re-

ligious practices. By discussing the dualism virtual/real and the conception of a digital materiality she proposes to consider VR technologies as a unique tool when it comes with spiritual pursuits.

In “Role-play, culture, and identity in virtual space. Semiotics of digital interactions” the author Kyle Davidson examines how interactions between users within the online space combine multiple realities and modalities. These different modalities of digital interactions open a reflection on the fundamental topic of the virtual identity. Thus, the final intent of this contribution is to use semiotics to model the new structure of digital interactions and to contextualise them within the wider online culture.

Lastly, the first part of the book is concluded by the precious contribution of Antonio Allegra’s article “Tecnica, Virtualità, Paura. Su una Versione dell’Angoscia Contemporanea” which focus on the social fear about these new technologies. Taking also in consideration researches on the use of VR to cure some forms of fear, he offers an original and very actual reflection on the topic of technophobia which becomes a philosophical and anthropological thesis on the extended forms of Virtuality intended as an ousted Reality.

The article by Mattia Thibault and Mila Bujjić “VRBAN Strategies of Representation and Degrees of Freedom in Virtual Cities” investigates on how urban spaces are represented through VR technologies and opens the second part of the volume. It is a work that looks at tens of different VR applications and games to outline several types of urban representations as well as several types of avatars. The outcome of this paper is however not only a classification but also a precious reflection on the role of analytical tools and epistemological strategies to study new media and texts.

In Oğuz Buruk’s article “Virtual Wearables: Envisioning Future Scenarios for Wearables in Extended Reality Environments” a rich palimpsest of extended reality applications for entertainment is proposed and analysed, with the aim of dealing with the augmented body in experiences within virtual environments. In particular, his analysis identifies culturally meaningful transformational processes and results in suggesting a new path for wearable design.

In the fourth article of the second part, “Virtual Reality Tourism: A Journey Across Time and Space”, Chen, Xi and Xue discuss how tourist can be provided, through VR, with simulated, immersive and unique travelling experiences. In their contribution “Virtual Reality Tourism: A Journey Across

Time and Space”, the authors explore the impact and limitations in the relation between VR and tourism, and how VR technologies can be integrated into that industry in order to enhance the user’s experience.

In “The Augmented Dead. Videogame in Realtà Aumentata, riconoscimento facciale e immaginari zombie” Lino traces a correlation between the cultural and allegorical figure of the zombie and the imaginary of invasion with the human condition in-between real and virtual spaces. This parallel is based on several different meaningful aspects of Augmented Reality and focuses especially on the role of facial recognition. This will lead the author to argue that the figure of zombie is conceivable as symbolic interface for the exploration of spaces where reality and virtuality collide.

Finally, in “Unsatisfied with Space: Hyper-readers in the Cybercosm of the 21st Century”, Valdivieso analyses the meanings of the reading exercise in contemporary times, where texts and hypertexts surrounds the reader, proposing new directions to understand how we are connected to multiple textual universes in a hybrid reality, as well as the functioning of the cyber-cosmos.

To conclude, we would like to express our whole-hearted appreciation to all the authors who have contributed for the realization of this book as well as to their working institutions.

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