Teresa López-Pellisa, *Patologías de la realidad virtual: Cibercultura y ciencia ficción*, Fondo de Cultura Económica, Madrid-México, 2015. ISBN: 978-84-375-0731-6. 15

The study that Dr Teresa López-Pellisa presents is dedicated to one of the most pressing issues of our contemporary times, namely the influence of virtual reality in our daily lives.

Preceded by a compelling prologue written by cyberculture expert Naief Yehya, the book is structured around two main subjects: a conceptual definition and historical overview of virtual reality and an analysis of five central «pathologies», as López-Pellisa calls them, that are related to our use and misuse of virtual realities.

The first section, «Propedéutica: aproximación teórica al concepto de realidad virtual», starts with the question that the book seeks to address: what is virtual reality? As López-Pellisa observes, the concept of virtual space is very often used loosely as a synonym of digital reality. A clear definition between the two allows her to develop the argument underlying her book: virtual space is generated by our brain activity, a space created by imagination, dreams and by any aesthetic

experience we engage with, such as watching a film, observing a painting, opening a book and in general grasping the imaginary realities constructed by those fictional products. Digital reality, however, is a type of virtual space, a subcategory that is specifically created by the human being via technological tools. In numerous examples López-Pellisa provides for both categories, she highlights the fact that different environments will provide different degrees of immersion and interaction.

This conceptual distinction leads her to trace a historical overview of what virtual reality has meant since Plato to contemporary times. The leitmotif that distinguishes the different stages are the various technological tools that human beings have had at their disposal to create the illusion of a reality. This section is particularly important to provide further context to the contemporary notion of virtual reality as an immersive, interactive environment. While it is only in the twentieth century when

new technologies have made it possible for this type of virtual reality to arise, López-Pellisa guides the reader through a very interesting journey in history through the techniques that presented a radical innovation of how reality could be represented, such as the theatre of shadows (invented in 121 BC), the discovery of perspective in the Renaissance, the magic lantern, the panorama and the fantascope in the late eighteenth century, the stereoscope in the nineteenth century, the cinematograph, the computer, the hypertext and the internet. The final parts of this section show that the twentieth century has accelerated the innovations virtual reality, in terms of technological and conceptual contributions (e.g. artificial reality, cyberspace, artificial life, the CAVE project, augmented reality, etc.).

Through this terminological and historical journey, López-Pellisa manages to establish a solid conceptual foundation of the phenomena that will be explored in the second part of her book.

In the following part, called «Análisis: Diagnóstico de la realidad virtual», the author seeks to identify the different pathologies that our immersion in virtual realities have created. Her diagnosis reaches out to five conditions.

The first pathology is «nominal squizofrenia», which refers to

the use and abuse of terms that have now become part of our everyday vocabulary, such as cyberspace, fictional worlds or virtual reality. This category synthetises and develops some of the main ideas featuring in the previous section of the book.

Following Jean Baudrillard's take on postmodernity and providing examples of Borges' fictions, López-Pellisa diagnoses a second disease that refers to the multiplication of simulacra that question what we understand and perceive as real. Another conceptual distinction closes this part: virtual metafiction vs. digital metadiegesis, both narrative devices but only the latter has narrative levels produced by digital technology, again reminding the reader of the difference between the virtual and digital that articulates her argument.

The third pathology we suffer as users of digital environments concerns our body. How is the body affected by our interaction with virtual realities? This is the question that leads to the third pathology: «the ghost body». In it, López-Pellisa discusses how new technologies have colonised our body and thus have prompted a reconsideration of what means to be human. Implants, cloned organs, prosthesis, plastic surgery, androids with artificial intelligence are some of the elements that increasingly question boundaries that distinguish a machine from the human being. To establish her argument, the author again recurs to a diverse range of examples, including the film *I am a Cyborg*, but that is OK (Park Chonwook, 2006), cyborg artist Neil Harbisson, Donna Haraway's 'A Cyborg Manifesto' (1984), among many others.

The fourth section deals with the divine connotations that technology has acquired, leading to the promise of a better afterlife in which the foundations of some religions resonate. It confers digital science and its creators a divine role, since they generate universes for us to inhabit with the hope of a better (after)life, or a 'techno-eternity'. This pathology also raises serious ethical questions concerning the implications of creating an eternal youth and (at least for the moment) a 'cyber-immortality' that overcomes our organic-biological challenges.

The final pathology discussed by López-Pellisa has a significant feminist dimension. In what she labels as 'the Pandora syndrome', the author establishes a contrast between the Pygmalion and the Pandora myth, which corresponds to two models of women: the passive angel in the house (a woman created to love), and the femme fatale (with seductive power and destructive force). This is one of the most interesting and original

sections in the book, since it traces a gendered analysis of the construction of different artificial females in literature and cinema and outlines recurrent tropes that always lead back to the dominant male gaze.

In Patologías de la realidad virtual there are many aspects worthy of admiration. López-Pellisa's work does raise several ethical and psychological, sociological concerns but it also hints at the positive potential of new technologies, without falling into the reductionist, catastrophist trap of thinking of technology as the ultimate evil. The bibliography filmography and exceptional sources of reference for anyone interested in investigating the subject of virtual reality. The structure is clear, embracing terminological definitions and a historical overview as well as analysis and conceptualisation. It is in this last part where, in my opinion, the book clearly shows its original contribution to existing analyses of virtual reality.

While the first part of the book is a (probably necessary) academic exercise defining the boundaries of the terminology employed, this second section — with no less rigour that the previous one - is distinctive for its creativity. One of the major strengths of *Patologías de la realidad virtual* is the ability to reduce to a limited number of categories

the broad spectrum of effects that our interaction with virtual realities has on us. López-Pellisa provides a convincing conceptualisation of five «pathologies», five categories that are explained with clarity and well supported with a very wide range of theories and cultural products. The reader will surely recognise himself/herself in some of the pathologies described in the book. Another important virtue of this categorisation is that it does apply to many existing cultural phenomena, as the author demonstrates, while also being valid for further films and literary books that have been produced later. (While reading this book, I could think of a few recent examples, such as the TV-series Black Mirror, and the films Her by Spike Jonze, 2013, and Ex Machina by Alex Garland 2015). This also means that this book will surely manage to stay relevant in the fu-Therefore, López-Pellisa's ture. work has accomplished a major challenge in the very rapidly changing field of virtual reality: the conceptual apparatus provided by López-Pellisa helps us better understand past, present and future cultural artifacts that surround our everyday lives and that we sometimes consume without enough critical engagement. While more examples can be added to her argument in the future years, the five pathologies will surely still apply to a large volume of cultural products.

There is perhaps something that the reader might wonder when s/he finishes reading Patologías de la realidad. Is there a way to confront these pathologies? The book finishes rather abruptly without a conclusion. In this missing part - which could have provided a more elegant closure to the rich diversity of concepts mentioned in the book - there would have been plenty of room to discuss, for example, the prognosis of several pathologies that may arise in the future, the potential mutation of the pathologies outlined, or, why not, the possible antidotes that we, users immersed in virtual reality, might have at our disposal.

Patologías de la realidad is a stimulating and comprehensive book that opens a rich ground for, what we hope, future work by López-Pellisa, on a subject in which she has demonstrated to have clear expertise.

Patricia García University of Nottingham dr.patricia.garcia@gmail.com

