The evolution of cyberpunk realia in video games

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INTRODUCTION
Cyberpunk was originally a literary science fiction genre of the 1980s, including publications by William Gibson (Neuromancer, 1984), Bruce Sterling (Mozart in Mirror Glasses, 1986), or, as a follow-up, Neal Stephenson (Snow Crash, 1992). He described a dark world, in which three thematic patterns can be identified (Rumpala, 2021): (1) a deep social divide, opposing the rich, who hope to leave Earth and settle in orbit, or have already done so, and the poor, that are condemned to scrounge in dark and ill-famed cities; (2) the existence of bodily augmentations, in the form of electronic prostheses, that progressively transform humans into cyborgs; (3) the existence of a cyberspace (or metaverse), a virtual place that can be accessed through a computer, and that immerses the user in an alternative reality. These themes are not new (traces of them can be found in Dick, Brunner or Silverberg, for example), but their co-existence and articulation have made it possible to define a distinguishable literary movement. The legacy of the movement is crucial, to the point that the Routlegde Companion to Cyberpunk Culture explains that "cyberpunk, a term first used as a literary concept to name a narrow branch of sf, has become a 'cultural formation [which is] a historical articulation of textual practices' (xv) that now shapes the way we see our place in the world, and this Companion aims to track cyberpunk's diversity and far-reaching influence" (Companion, 2020, p. 2).

The purpose of this paper is, thanks to a corpus of games published over thirty years, to show how the cyberpunk imaginarium has acculturated our relationship to the world. The idea is not to look for confirmations of the presence of cyberpunk in all areas of our contemporary society, but rather to analyze the games of the corpus in order to understand the evolution of the depiction of cyberpunk realia, that is, fictional cyberpunk technologies or geopolitical topics that are typical for cyberpunk universes, be it the first constitutive elements of a nascent xeno-encyclopedia (Saint-Gelais, 1999) or the clichéd theme park of Cyberpunk 2077.

The evolution of the acculturation of our relationship to the world has naturally not taken place in a cultural, semantic or conceptual vacuum, which makes its study

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accessible to the lenses of cognitive semiology. In the field of game studies, cognitive sciences have been mainly used for studying the way game design is to unfold so as to maximize the engagement and/or immersion of players (Hodent, 2018) or to investigate the potential uses of video games from a medical point of view (for instance: Bellens et al. 2020; Choi et al. 2020). As far as we know, the representation of cyberpunk realias has not been addressed from a cognitive semiology perspective. From a semiological point of view, in the 1980s, the cyberpunk genre developed in a technological environment that was very different from what the cyberpunk games depicted, as the domains of experience (Lakoff G. & Johnson M. 1985) of the society of the time bore little direct similarities to these universes. Thus, the cognitive grasps on the futures developed in cyberpunk were tenuous. For example, what about the idea of cyberspace? The World Wide Web was still in its early stages of development, or even non-existent if we consider the cyberpunk games of the 1980s. The conceptual frameworks of the technology of the time, which was quite poor compared to the advanced worlds of the games, enabled only limited understanding by metaphorical projection (ibid.) and mingled rather painfully in a phenomenon of cognitive blending (Fauconnier & Turner 1994, 1998, 2002, Coulson & Oakley 2000), mixing the still rudimentary field of computer science and the biology of the human body.

The cognitive effort required to understand the stakes of cyberpunk worlds was very different from today. This is illustrated in the manuals of the first cyberpunk games, with a profusion of explanations about fictional technologies and numerous attempts to naturalize the game inputs by diegetizing them quasi-automaticaly. Today, the ubiquity of the web, smartphones, and other connected devices has accelerated the naturalization of old blending processes, so that the long justifications for cyberpunk realia that we saw in the games of the 1980s and 1990s have been made obsolete. Moreover, human understanding of cyberpunk fictional worlds can now also be rooted in a body of xeno-encyclopedic knowledge (Saint-Gelais, 1999) derived from a rich post-humanist and cyberpunk imaginary, which has developed from the 1980s to the present day in a plethora of literary, cinematic, and videogame pop-cultural works.

In video games, the cyberpunk mythos has come a long way from *Neuromancer* (Interplay Entertainment 1988) and its mysterious technological world, through *Snatcher* (Konami 1994) and its extremely diegetized technology, to current, solid transmedia franchises like *Deus Ex*. In today's video games, there is a fascinating but counter-intuitive phenomenon: the more we know about the technology, the less we bother to explain it, even though we have the tools and the relevant domains of experience to do so. Its societal stakes, as well as the multiple possibilities it offers, have become intuitively grasped and have become anchored in the liminal background of human understanding, to the point of enabling the representation of not-so-distant futures that play the role of a reading grid in direct adequacy with the current society.

In order to illustrate this chronological journey, we will analyze four decades of video games, as well as their paratexts, that thematize cyberpunk. A first set consists of a few games from the end of the 1980s (the first adaptation of Neuromancer in 1988 or RoboCop in 1988 (Ocean Software 1988); a second set consists of an explosion of releases in the mid-1990s; a relative lull in the mid-2000s; and finally, the contemporary games that claim to follow this imaginarium, up until *Cyberpunk 2077* (CD Projekt 2020).

The systematic study of this corpus of video games, based on an analysis grid that focuses on themes, genres, narration, gameplay and graphic and sound elements, requires a specific point of view on the evolution of this imaginary: it demands attention to the reflexivity inherent in the enactment of cyberpunk in a medium that mobilizes a computer interface (the video game, as opposed to film or literature), for example, as

Johnson (2018) has done in examining the evolution of the representation of cyberspace in video games. Our research thus takes into account both the diegesis and the fictional universe and, more specifically, the evolution of the interfacial experience of the player, who must then question the mediated relationship he or she has with cyberpunk, sometimes pushing him or her to question their own condition.

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CORPUS

First set (1980)

Tron (Midway, 1982)

Star Rider (Williams Electronics, 1983)

Hacker (Activision, 1985)

Baltron (Shouei System, 1986)

Digital Devil Story: Megami Tensei (Atlus, 1987)

Akira (TOSE, 1988)

Neuromancer (Interplay Productions, 1988)

RoboCop (Data East, Ocean Software, 1988)

Snatcher (Konami, 1988)

Speedball (The Bitmap Brothers, 1988)

B.A.T. (Computer's Dream, 1989)

Electrocop (Epyx, 1989)

Interphase (The Assembly Line, 1989)

Mean Streets (Access Software, 1989)

Raid 2020 (Coloer Dreams, 1989)

Strider (Capcom, 1989)

1990 Frenesy

Strider II (Tiertex, 1990)

Cyber-Lip (SNK, 1990)

Digital Devil Story: Megami Tensei II (Atlus, 1990)

Extase (Cryo, 1991)

Flashback (Delphine Software, 1992)

Shin Megami Tensei (Atlus, 1992)
Nuclear War MUD (Project community, 1992)
Hired Guns (DMA Design, 1993)
Shadowrun (Beam Software, 1993)
Syndicate (Bullfrog, 1993)
BloodNet (MicroProse, 1993)
Zoku: The Legend of Bishin (Magifact, 1993)
RoboCop versus The Terminator (Interplay Entertainment, 1993)
Hell: A Cyberpunk Thriller (Take-Two Interactive, 1994)
Delta V (Bethesda Softworks, 1994)
Denjin Makai (Winkysoft, 1994)
Cyberia (Xatrix Entertainment, 1994)
Quarantine (Imagexcel, 1994)
Beneath a Steel Sky (Revolution Software, 1994)
DreamWeb (Creative Reality, 1994)
Shin Megami Tensei II (Atlus, 1994)
Rise of the Robots (Instinct Design, Mirage Technology, 1994)
System Shock (Looking Glass Studios, Night Dive Studios, 1994)
BioForge (Electronic Arts, 1995)
Wirehead (The Code Monkeys, 1995)
I Have No Mouth, and I Must Scream (Cyberdreams, 1995)
Demolition Man (Alexandria Inc., 1995)
Fade to Black (Delphine Software, 1995)
Immercenary (Five Miles Out, 1995)
Johnny Mnemonic (Propaganda Code, 1995)
Judge Dredd (Probe Entertainment, 1995)
Phantom 2040 (Unexpected Development, 1995)
Shin Megami Tensei: Devil Summoner (Atlus, 1995)
Zero Divide (ZOOM Inc., 1995)
CyberJudas (D.C. True, Ltd., 1996)
Ripper (Take-Two Interactive, 1996)
Normality (Gremlin Interactive, 1996)
Netzone (Compro Games, 1996)
Shadowrun (Compile, Group SNE, 1996)
Syndicate Wars (Bullfrog, 1996)
The Terminator: SkyNET (Bethesda Softworks, 1996)
Blade Runner (Westwood Studios, 1997)

Devil Summoner 2: Soul Hackers (Atlus, 1997)
Final Fantasy VII (Square, 1997)
Judge Dredd (Gremlin Interactive, 1997)
Meat Puppet (Kronos Digital Entertainment, 1997)
Sindome (Project community, 1997)
Hardwar (The Software Refinery,1998)
Future Cop: LAPD (EA Redwood Shores, 1998)
ReBoot (EA Canada, 1998)
Rent-a-Hero (Neo Software, 1998)
SiN (Ritual Entertainment, 1998)
ZeroZone (Cryo Interactive, 1998)
The Nomad Soul (Quantic Dreams, 1999)
Slave Zero (Inforgrames North America, 1999)
System Shock 2 (Looking Glass Studios, Irrational Games, 1999)

2000 Corpus

Deus Ex (Ion Storm, 2000)
Perfect Dark (Rare, The Initiative, 2000)
Metal Gear Solid 2: Sons of Liberty (Konami, 2001)
Rez (United Game Artists, 2001)
Deus Ex: Invisible War (Ion Storm, 2004)
Mirror's Edge (DICE, 2008)

2010 Corpus

Deus Ex: Human Revolution (Eidos Montreal, 2011)
Syndicate (Starbreeze Studios, 2012)
Far Cry 3: Blood Dragon (Ubisoft Montréal, 2013)
Remember Me (Dontnod Entertainment, 2013)
Transistor (Supergiant Games, 2014)
Watch Dogs (Ubisoft Montréal, 2014)
Invisible, Inc. (Klei Entertainment, 2015)
Hacknet (Team Fractal Alligator, 2015)
Deus Ex: Mankind Divided (Eidos Montréal, 2016)
Mirror's Edge Catalyst (DICE, 2016)
VA-11 HALL-A: Cyberpunk Bartender Action (Sukeban Games, 2016)
Watch Dogs 2 (Ubisoft Montréal, 2016)
>observer_ (Bloober Team, 2017)

Exapunks (Zachtronics, 2018)

Detroit: Become Human (Quantic Dream, 2018)

The Red Strings Club (Deconstructeam, 2018)

Neo Cab (Fellow Traveller, 2019)

Sense: A Cyberpunk Ghost Story (Susaku, 2020)

Watch Dogs: Legion (Ubisoft Toronto, 2020)

Cyberpunk 2077 (CD Projekt RED, 2020)

Virtuaverse (Theta Division, 2020)

Chinatown Detective Agency (General Interactive Co., 2021)