

People's Democratic Republic of Algeria
Ministry of Higher Education and Scientific Research
University of Kasdi Merbah Ouargla
Faculty of Letters and Languages
Department of Letters and English Language



Thesis submitted in fulfillment of the requirements of the degree of doctorate in
English Language and literature
Major: Literature and Philosophy

Title

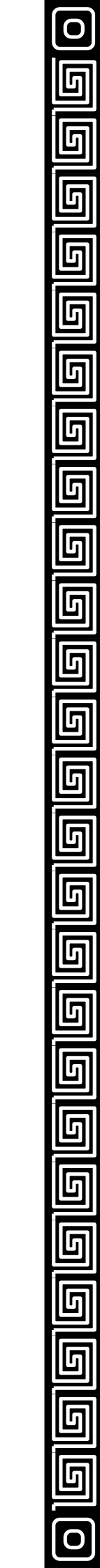
**A Memetic Reading of the Dystopian Society:
Homo-Evolutis in Huxley's *Brave New World*
(1932), Mitchell's *Cloud Atlas* (2004), and
Cline's *Ready Player One* (2011)**

Submitted by
Youcef Mekhanet

Supervised by
Dr. Samira Sayah Lembarek
Board of examiners

Mohammed Seghir Halimi	Prof	University of Ouargla	Chair
Samira Sayah Lembarek	Ass Prof (MCA)	University of Ouargla	Supervisor
Ahmed Bechar	Ass Prof (MCA)	University of Ouargla	Examiner
Nouredine Ahmed Belarbi	Ass Prof (MCA)	University of Ouargla	Examiner
Maria Beyboumezrag	Ass Prof (MCA)	University of Ouargla	Examiner
Hicham Saouhali	Ass Prof (MCA)	University of ouargla	Examiner

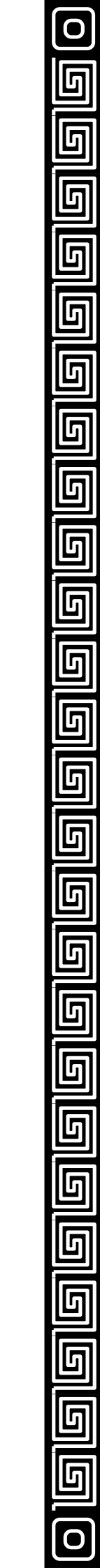
2023-2024



Title

**A Memetic Reading of the Dystopian Society:
Homo-Evolutis in Huxley's *Brave New World*
(1932), Mitchell's *Cloud Atlas* (2004), and
Cline's *Ready Player One* (2011)**

Submitted by
Mekhanet Youcef



Statement of Authorship

I hereby declare, that I am the sole author and composer of my thesis and that no other sources or learning aids, other than those listed, have been used. Furthermore, I declare that I have acknowledged the work of others by providing detailed references of said works. I also hereby declare that my thesis has not been prepared for another examination or assignment, either in its entirety or excerpts thereof.

Place and date:

signature:

Acknowledgement

First and foremost, I have to thank Allah for all the blessings in my life that led me to this moment.

There are a number of people without whom this thesis might not have been written, and to whom I am greatly indebted.

A very special thank you for my supervisor, Dr. Sayah Lembarek Samira who indulged me with her knowledge and wisdom throughout the previous months.

To my other supervisor and teacher, Prof Mohammed Seghir Halimi who believed in me and helped me in so many ways through the years. I could not have done it without your continuous support.

Finally, I would like to thank the Board of Examiners for their valuable time, guidance and remarks.

Thank you

Dedication

To my parents, to my better half

To my little two blessings

To my friends

And

All my beloved ones

Abstract: Technological and scientific breakthroughs have radically changed society. Progressively more authors of literature today are weaving both these innovations and themes centred around them into their works. So, for a deeper comprehension of such works, *literary criticism* ought to include natural sciences as additional fields that provide new tools of analysis. However, *Arts/humanities* in general are quite distant from natural sciences in terms of interests and aims which could prove problematic. This research suggests a theoretical approach to reconcile these two fields of academia with *social sciences* and combine them to form a coherent and homogenous framework. Inspired by Bauman's *liquid modernity* and Wilson's *Unity of Knowledge*; this framework named "*Liquid Memetics*" is the study of cultural artifacts (memes) on the basis of the interconnectivity of knowledge across the different fields of academia. By adopting this approach, a qualitative analysis will be set forward in order to examine and analyse dystopian narratives and their societies across different mediums other than the novel in order to construct, to some extent, a genealogical understanding of the *memetic evolution* of such societies. Accordingly, this approach will be based on the categorization of individuals into *Homo-Evolutis*, *Ludens*, or *Dolor* within such dystopian societies and on the basis of Plato's *Kallipolis* as a reference to utopian idealism and Nietzschean will to power which alludes to the *human condition*.

Keywords: Memetics, Consilience, Unity of knowledge, Liquidity, Dystopia, Homo-Evolutis, Homo-Luden, Homo-Dolor.



Resumé : Les percées technologiques et scientifiques ont provoqué des changements fondamentaux au sein de la société moderne. De plus en plus d'auteurs de littérature tissent aujourd'hui ces innovations et les thèmes qui en découlent dans leurs œuvres. Pour une compréhension plus profonde de telles œuvres, la critique littéraire devrait inclure les sciences naturelles en tant qu'outils d'analyse supplémentaires. Cependant, les arts / les humanités en général sont assez éloignés des sciences naturelles en termes d'intérêts et d'objectifs, ce qui pourrait poser des problèmes. Cette recherche suggère une approche théorique pour concilier ces deux domaines universitaires avec les sciences sociales et les combiner pour former un cadre cohérent et homogène. Inspiré de la modernité liquide de Bauman et de l'unité de la connaissance d'E.O. Wilson, ce cadre appelé "Mémétique liquide" est l'étude des artefacts culturels (mèmes) sur la base de l'interconnectivité des connaissances dans les différents domaines universitaires. En adoptant cette approche, une analyse qualitative sera avancée afin d'examiner et d'analyser des récits dystopiques et des sociétés à travers différents médias autres que le roman afin de construire, dans une certaine mesure, une compréhension généalogique de l'évolution mémétique de ces sociétés. En conséquence, cette approche se basera sur la catégorisation des individus en Homo-Evolutis, Ludens ou Dolor au sein de telles sociétés dystopiques et sur la base de la Kallipolis de Platon en tant que référence à l'idéalisme utopique et à la volonté de puissance nietzschéenne qui fait allusion à la condition humaine

Mots-clés : Mémétique, Consilience, Unité des connaissances, Liquidité, Dystopie, Homo-Evolutis, Homo-Luden, Homo-Dolor.

مستخلص

أدت الاختراعات التكنولوجية إلى تغيير جذري في المجتمعات. كما دفعت بعدد لا ينفك يتزايد من المؤلفين اليوم إلى استخدام هاته الابتكارات والموضوعات التي تدور حولها في أعمالهم أكثر فأكثر. لذلك فإنه من الضروري أن يضم النقد الأدبي المعاصر العلوم الطبيعية كأدوات ومراجع للتحليل من أجل فهم أفضل وأعمق لمثل هذه الأعمال الأدبية ، ولكن الفنون والعلوم الإنسانية بشكل عام بعيدة تمامًا عن العلوم الطبيعية من حيث الاهتمامات والأهداف مما يشكل عائقًا أمام التوفيق بين هاته الأعمال والعلوم كأدوات تحليل مستحدثة. نقترح من خلال هذا البحث مقارنة نظرية للتوفيق بين هذين المجالين من الأوساط الأكاديمية والجمع بينهما من خلال إطار عمل متماسك ومتجانس مستوحى من نظريتي الحداثة السائلة لبومان و وحدة المعرفة لويلسون . إطار العمل المقترح والمسمى "Liquid Memetics" هو عبارة عن دراسة القطع الأثرية الثقافية (الميمات) على أساس الترابط المعرفي عبر المجالات المختلفة للأوساط الأكاديمية. بالاعتماد على هذا النهج ، سيتم تقديم تحليل نوعي للسرد القصصي الديستوبي ومجتمعاته عبر وسائط مختلفة غير الرواية لإنشاء مفهوم جينولوجي، إلى حد ما، لتطورات النماذج الميمية لهذه المجتمعات. وبناءً على ذلك، سيتم الاعتماد على تصنيف الأفراد إلى هومو-إيفولوتس، لودينس، أو دولور ضمن هذه المجتمعات الديستوبية، وعلى أساس "كاليبوليس" لأفلاطون كمرجع للأسلوب الفكر اليوتوبي و"إرادة السلطة" لنييتشه التي تلمح إلى الحالة الإنسانية.

كلمات مفتاحية: علم الميمات ، التوافق العلمي ، وحدة المعرفة ، السيولة ، ديستوبيا ، الانسان التطوري ، الانسان اللاعب ، الانسان المستهلك.

TABLE OF CONTENTS

ACKNOWLEDGEMENTS	I
<u>DEDICATION</u>	<u>II</u>
ABSTRACT	III
RESUMÉ	IV
مستخلص	V
TABLE OF CONTENT	VI
GENERAL INTRODUCTION	9

I. CHAPTER ONE: THE REPLICATORS OF LIFE: GENES VERSUS MEMES

INTRODUCTION	19
I. THE REPLICATORS OF LIFE: <i>GENES VERSUS MEMES</i>	21
I.1. FROM THE GENOME TO THE GENE	22
I. 2. <i>THE GENE: THE FIRST REPLICATOR</i>	26
I.2.1. VEHICLES AND REPLICATORS	28
I.2.2. THE SELFISH GENE	31
I.2.3. THE MEME: THE SECOND REPLICATOR	36
II. MEMETICS: A SCIENCE YET TO BE BORN	39
II.1. THE MEME: THE VIRUS VS THE GENE	41
III. LIQUID MEMETICS	48
III.1. LIQUEFACTION OF MEMETICS	52
III.2. MEMETICS IN CONSILIENCE	57
III.2.1. LAWS OF HOLARCHIES	63
CONCLUSION	65

CHAPTER TWO RETHINKING DYSTOPIA UNDER THE GAZE OF LIQUID MEMETIC

INTRODUCTION

67

IV. RETHINKING DYSTOPIA UNDER THE GAZE OF LIQUID MEMETICS	68
---	----

IV.1. DEFINING DYSTOPIA	70
IV.2. DYSTOPIA: GENESIS	76
IV.3. DYSTOPIA: ENTROPICALLY EVOLVED	82
IV.3.1. THE ENTROPIC HUMAN CONDITION	91
IV.3.2. THE ENTROPIC EVENTUALITY OF DYSTOPIA	96
IV.4. MEMETIC SEQUENCING OF DYSTOPIA	101
IV.4.1. THE LITERARY GENOME PROJECT	107
CONCLUSION	121

CHAPTER THREE: DYSTOPIA INCARNATED: MOTION PICTURES, COMIC BOOKS, AND VIDEO GAMES

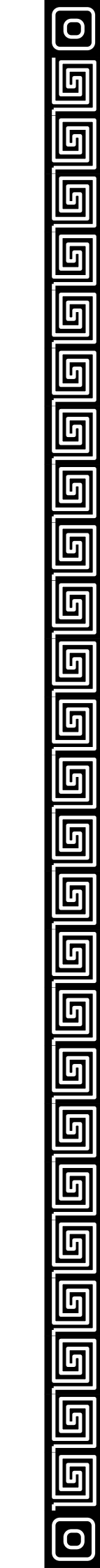
INTRODUCTION	124
V. DYSTOPIA INCARNATED: MOTION PICTURES, COMIC BOOKS, AND VIDEO GAMES	125
V.1. MOTION PICTURES	129
V.1.1. THE MATRIX TRILOGY: WELCOME TO THE DESERT OF THE REAL	133
V.1.2. WESTWORLD (2016): THESE VIOLENT DELIGHTS HAVE VIOLENT ENDS	146
V.2. V FOR VENDETTA: IDEAS ARE BULLET PROOF	159
V.3. BIOSHOCK: BECOME YOUR PROTAGONIST	170
CONCLUSION	176

CHAPTER FOUR MEMETIC READING OF THE DYSTOPIAN SOCIETY

INTRODUCTION	179
VI. MEMETIC READING OF THE DYSTOPIAN SOCIETY	181
VI.1. THE DYSTOPIAN HOMO GENUS	182
VI.1.1 HOMO-EVOLUTIONIS IN BRAVE NEW WORLD	183
VI.1.2 HOMO-DOLOR IN CLOUD ATLAS	201
VI.1.3 HOMO-LUDEN IN READY PLAYER ONE	217
CONCLUSION	229

GENERAL CONCLUSION

BIBLIOGRAPHY / REFERENCES	236
---------------------------	-----



General Introduction

General Introduction

The spirit of experimentation has been always the driving force for literature. Since time immemorial, humanity as whole is relentlessly searching for better and more innovative ways of self-expression. Classic genres such as poetry, drama, fiction, and nonfiction have expanded into tens of subgenres to meet the drastically dynamic realities of the last century. Due to the calamities of the two world wars and the growth of environmental and global concerns mashed with the huge leaps we witnessed in terms of technology, the 21st century saw the creation of new peculiar genres and literary styles. The scientific and technological themes such as artificial intelligence, cloning, global warming, cybernetics, virtual reality, psychedelics, space and time travel, extra-terrestrials, and genetic engineering became prominent features of these new subgenres like cyberpunk, alternative and contemporary fantasy, post-apocalyptic, flash fiction, young adult (YA), and climate fictions (cli-fi).

More and more contemporary works of literature are imbedded with detailed elements of technology and science to the extent of becoming central to the plot, setting, and characters of these works. The same elements have radicalized society today and is radicalizing literature in the process. Therefore, it is only a matter of time where we will be delving into this new literary niche of analysing and critiquing literary works that are either involving or adopting micro-specialized fields of natural sciences like quantum physics and Information Technology (IT). The hurdle here, however, is the existing schism between natural sciences, the humanities, and literature today which ultimately led to generally marginalize such elements when it comes to literary criticism and analysis.

Evidently, it is becoming essential for the field of literary criticism to involve new approaches that are also grounded on natural sciences rather than just social sciences and the

humanities, and therefore it is time for the cotemporary critic to mend this rift among these seemingly distant spheres of academia.

One of the cogent questions that can be raised around the proposition of approaching and juxtaposing biology, for instance, next to other disciplines like sociology, philosophy, or even arts and literature is whether there is a common ground for such an endeavour. C. P. Snow, a Pulitzer-winning biologist and a leading authority on myrmecology identified this “disciplinary isolation” as the problem of “the Two Cultures” whereby the Arts/Humanities and the Sciences are viewed as opposite poles of knowledge is still considered the privileged discourse today. (Velikovsky, 2014, p. 56)

For instance, natural scientists are evolving mainly around predicting and explaining natural phenomena via the observation of material entities under controlled experimental conditions. Their vocabularies are uncommon in that they are built on semantic and mathematical ideas (Kagan, 2009, p. 4) and are founded on three basic assumptions. First, no scientific explanation is ever completely correct; second, all phenomena are the end result of a series of predictable material processes; and third, natural phenomena lack ethical qualities (Kagan, 2009, pp. 57-58). These principles enable natural scientists to effectively explain a broad range of puzzling natural phenomena, contribute significantly to the national economy, and therefore enjoy, at the expense of humanities today, a high degree of public respect (Kagan, 2009, p. 51). Humanities, on the other hand, aims neither to predict nor explain the natural world but instead to understand the human being and his reactions towards “... the events and meanings that humans impose on experience as a function of culture, historical era, and life history”. (Kagan, 2009, p. 4).

Regardless of their level or the lack thereof in epistemological and objective rigor in terms of methodology, the arts/humanities fulfil a number of important tasks and provide a

diverse range of knowledge to academia. Jerome Kagan, considers that the humanities are still relevant today because they can “provide divergent perspectives on the human condition and create objects of beauty” as much as they are there to remind us as a society of our contradictions, emotional states, ever-changing culture, and deepest moral dilemmas. (Kagan, 2009, pp. 230-231)

Kagan argued that there are actually three divisions of academia where each group has its own culture, which is reflected in its vocabulary, techniques, and interests. For instance, in social sciences where the interest is to study the human behaviour, thoughts, beliefs, and emotions, symbol¹ and culture are as fundamental concepts as mass and energy in physics, atom and molecule in chemistry, gene and cell in biology. (Kagan, 2009, pp. 104-105). Such distinguished interests and vocabulary would eventually lead to distinguished techniques and approaches, which are tilted more or less towards an analytical approach rather than the natural sciences' empirical or the arts'/humanities rational and interpretive approaches.

Even though they disagree on the matter of classification of academia, both Kagan and Wilson called for the unification of the great branches of learning and the end of the culture feuds. Wilson called for perceiving the boundaries between the scientific and literary cultures as “...broad and mostly unexplored terrain awaiting cooperative entry from both sides.” (Wilson, 1999, p. 137). Since we know, for instance, that practically all human behaviour is transmitted by culture and biology has a significant effect on both its origins and transmission, the remaining question is how biology and culture interact, and more specifically, how they interact across all societies to produce the universal characteristics of human nature (Wilson,

¹ A symbol is any event – a color, design, spatial location, animal, object, or word – whose physical features bear no relation to the idea it represents.

1999, p. 137). On the other hand, Kegan called for cross-disciplinary cooperation, equality of value between the three fields of knowledge, and an emphasis on ethical principles.

Memetics is possibly one of the most underrated attempts of associating biology with culture in the last few decades. As a field of study, Memetics is concerned with creation, replication, and transmission of cultural patterns which are identified as memes. Since the meme became a point of interest half a century ago, little study has been done to investigate whether memetics can be scientifically based in such a way it could be measured, anticipated, and controlled. To the best of our knowledge, memetics research has been conducted in small, scattered efforts by academics working on their own time, the majority of whom are not Americans. Until recently, no concerted effort has been undertaken to determine if a scientific basis for memetics could be established. (Finkelstein, 2008, p. 12)

The last decade did not witness any change in this pattern and saw Memetics as a field of Socio-biology, falling from grace of the mainstream science in comparison to rival theories like gene-culture coevolution theory (GCCE) for instance. The fact that there are currently only two well-known scholars who can be identified as memetists (Susan Blackmore; Dan Dennett), coupled with a relative drought of academic production (from 1986 to 2004, only 41 articles used the term "memetics" as an index in the Web of Science database), reveals how much memetics needs new blood to reinvigorate its appeal to the scientific community. After all, science is but another evolutionary arena in which scientific ideas and theories compete for scientific community acceptance and support. (Chvaja, 2020, p. 545)

Memetics, being approached as a broader social science, may well be a promising field of study that could offer an attempt to answer both Wilson's and Kegan's call for the unity of knowledge and culture in cross-disciplinary cooperation where all fields of knowledge are equally valued as a source of truth. Kegan's argument that social sciences are still in an early,

unhappy stage of development and lack a consensus on a unifying theoretical perspective and methodology is analogous to what memetics as a field of study is going through today. Still, the absence of a strong unifying approach could prove to be a productive quality for the social sciences. This semi-permissive atmosphere would not necessarily be correlated with a fruitless yield; it might even tolerate "... a thousand flowers to bloom." (Kagan, 2009, p. 127).

Moving from the restrict restraints of natural sciences towards the creative and intuitive fields of humanities and arts is the road less travelled today. Perhaps breaking away from the shackles of definitions and the seriousness of it all is what is required of us to explore the no man's land between these three established divisions. Inspired by Bauman's liquid modernity, in the name of consistency, and in accordance with the spirit of biomimicry which memetics is based upon, an analogy could be drawn between the three cultures and the three main states of matter in nature to demonstrate a synthesis between their points of view and Memetics in order to suggest a sort of a prototype framework that Memetics might be based upon.

There would be no more fitting literary genre than dystopia in order to implement and test Liquid Memetics on because both the approach and genre share several points of similarity and interests. They are both relatively new and innovative; if you are looking for larger than life characters, societies, and settings that are filled with extremely crazy inventions, ideologies, and ruling systems, dystopia is your destination. Not only this genre is very popular today, its works are thought provoking narratives that implement natural sciences cleverly through technology and inventions to problematize issues of existentialism, meaning, psyche, religion, and morality which are the areas of interest for humanities and social sciences. Therefore, revisiting dystopia and its societies through the approach of the consilient Liquid Memetics could prove to be fruitful endeavour when it comes to this area of research as such genre can offer us a common ground of deliberation between the appliances of natural sciences and social sciences and humanities' general interest in the universe and human condition.

Accordingly, this research will attempt to answer the following questions:

- How can the concept of "Liquid Memetics" be defined and applied as a framework for understanding the interplay between cultural artifacts (memes) and the evolving landscape of knowledge across various academic disciplines?
- To what extent can a consilient approach establish liquid memetics as a coherent and interdisciplinary framework for understanding cultural evolution?
- In what ways can Liquid Memetics offer us a new perspective of dystopia?
- To what extent do the similarities and differences in the portrayal of Homo-Evolutis in *Brave New World*, *Cloud Atlas*, and *Ready Player One* reflect the memetic evolution of the dystopian genre and its relevance to contemporary societal and technological trends, such as consumerism, and virtual reality?

By exploring the intersection of different fields of knowledge, such as physics, biology, sociology, and philosophy, this thesis will attempt to examine the potentiality of liquid memetics to provide a comprehensive understanding of the dynamics of cultural change in contemporary society. This statement of problem emphasizes the importance of integrating universal concepts from wide range of knowledge domains in understanding literature a little bit more thoroughly.

For this statement of the problem, I have chosen to adopt a qualitative research methodology. Given the exploratory and interpretive nature of the research questions, qualitative research methods such as case studies, interviews, and content analysis are well-suited to the task of exploring the definition, characteristics, and applicability of liquid memetics. Qualitative methods also allow for a more nuanced and context-specific analysis of the complex and multifaceted nature of cultural evolution. Additionally, a qualitative approach will enable me to engage with multiple sources of data, including academic literature,

philosophy, case studies, and media spectrum, to develop a rich and comprehensive understanding of liquid memetics and its potential as an interdisciplinary framework for analysing cultural evolution. Additionally, this method would be productive in engaging with comparative analysis and examining similarities and differences in the portrayal of this trope across the three novels and considering their implications for the evolution of the dystopian genre.

The first chapter of this research, entitled "The Replicators of Life: *Genes Versus Memes*," explores the concept of memetics and its relationship to genetics. In this chapter, we juxtapose the idea of genes, which are physical units of heredity that are passed down from one generation to the next, with memes, which are cultural units of information that are transmitted through human social contact and cultural artifacts. By comparing and contrasting the properties of genes and memes, we begin the process of developing a new understanding of memetics that is based on the former premise and Bauman's concept of liquidity. This chapter will explore this new approach memetics which is based on the consilience of knowledge from diverse fields of study, including biology, anthropology, psychology, and media studies. By integrating insights from these different disciplines, the aims for this chapter are to establish a sound theoretical framework that would lead us to a more comprehensive and interdisciplinary outline for understanding the complex and dynamic nature of cultural evolution and the role of memes in shaping human societies and identities.

The second chapter, entitled "Rethinking Dystopia under the Gaze of Liquid Memetics," challenges traditional notions of dystopian and utopian literature. By applying the lens of liquid memetics, this chapter argues that all societies, even those labeled as utopias, are inherently dystopian due to the fundamental nature of human condition. Through this chapter, we will discuss and analyse memetically the genesis of such genre referring way back to ancient narratives of the human society. Cultural evolution is an ongoing and fluid process, and all

societies undergo cycles of growth, stability, and decline. Through this perspective, even the Garden of Eden, often seen as a utopian society, can be considered a dystopia due to the eventual decline and fall of humanity from grace due to the universal element of entropy. By examining the cyclical nature of cultural evolution, this chapter seeks to challenge the idea that dystopia is a fixed genre, and instead argues that all societies contain elements of dystopia at different stages of their life cycles. Additionally, an attempt to create a theoretical framework for a memetic sequencing project in which the latest technological breakthroughs can be used to classify and categorize the countless works of literature in general and dystopias in particular that are published every single year.

The third chapter entitled "Dystopia Incarnated: *Motion Pictures, Comic Books, and Video Games*," explores the evolving narrative mediums for dystopian stories. The chapter argues that novels are no longer the sole medium for dystopian literature, and that modern audiences experience stories through a variety of multiplatform media such as video games, comic books, and movies. The chapter challenges the idea that these mediums are simply entertainment and argues that they are worthy of academic study and consideration. The rise of interactive storytelling through video games, for example, offers a unique and engaging way to experience dystopian stories. The chapter will explore how these mediums are shaping the way we consume and understand dystopian narratives, and the implications this has for the future of storytelling. Through this examination, the chapter aims to challenge traditional notions of what constitutes "serious" literature or narrative, and to highlight the importance of considering a range of mediums in the study of dystopian fiction.

The third chapter entitled "Memetic Reading of the Dystopian Society," explores the concept of homo-evolutis, or the idea of the human who controls his own evolution, through a memetic lens. Focusing on three works of *Brave New World*, *Cloud Atlas*, and *Ready Player One*, the chapter examines how homo-evolutis influence and alter the formation of other

subspecies of humans, such as homo-dolor (consumer man) and homo-ludens (player man), in order to maintain order and efficiency in dystopian societies. These three types of humans are based on Plato's concept of the philosopher-king (evolutis), money lovers (dolor), and honour lovers (ludens). Through this analysis, we will explore the dynamics of power struggle among them and how it pushes their cultural co-evolution process forward. This continuous evolution will be perceived as a genealogy of these dystopian memplexes. This chapter will also argue that although homo-evolutis takes great strides to organize society, and they succeed in doing so, it always succumbs to entropy and ultimately falls apart.

CHAPTER ONE

The Replicators of Life *Genes Versus Memes*

Introduction

Similar to other living organisms, Charles Darwin claimed that humans have went through drastic changes that shaped and still continue to reshape their physiology and behaviour as well. However, it is commonly assumed that humans as a species have evolved very little in the past couple of millennia despite the fact that new revolutionary discoveries of the genetic information from populations around the globe showed that the pace of human evolution increased with the advent of agriculture and cities.

Darwin believed that organisms evolve through adaptation to the environment. He pointed out that when an environment changes, a characteristic can suddenly shift from being an advantage into a disadvantage, and vice versa. The same process would occur in the human world but differently as it would not alter the reproductive potential of the human species but rather alter the social hierarchy. Just like the physical aspects which used to be the key to survival and hence was greatly advantageous now became second to the cognitive aspects in our modern age in which such aspects proved more advantageous in today's modern life. Even though evolutionary laws like survival to the fittest and natural selection are not notable factors anymore, humans keep evolving cognitively as our "civilized" environment is rapidly changing. Thus, a dynamic element of evolution which is adaptation to the environment is still very much in play.

Steve Jones of University College London has argued that human evolution has essentially ceased. For him, humans are no longer evolving physically and that technology has put an end to the brutal logic of natural selection, and that evolution is now purely cultural (Peter Ward, 2017). As a part of the Royal Society of Edinburgh debate of 2002 entitled "*Is Evolution Over?*" he argued that: "Things have simply stopped getting better, or worse, for our species. If you want to know what Utopia is like, just look around—this is it." (Peter Ward,

2017). For Jones, individuals in the developed world have the opportunity to reach reproductive age, and the poor and rich have an equal chance of having children. Adding to facts like our continuous mutation that improves our resistance to diseases, both new and inherited, is what will ensure our survival. Since we no longer live in the nature, laws such as survival to the fittest and the natural selection can no longer influence the path of human evolution. Nowadays, the deciding factor in whether people live or die is not our genetic inheritance but our culture. In short, evolution may now be memetic—involving ideas—rather than genetic (Peter Ward, 2017).

Since the time of Charles Darwin, many theorists attempted to successfully migrate the ideas of *The Origin of Species* from the biological domain to, perhaps, distant domains like social, political, cultural or intellectual ones as they believed in a way or another that Darwinism is a universal doctrine that dictate all facets and paths of organic realms including ours. In his book “*The Selfish Gene*” originally published in 1976, Richard Dawkins made an attempt to correlate Darwinism and natural selection in particular with our unique trait as humans which is culture. He saw the behaviour of cultural elements such as a word, a musical tune, or a way of clothing that spread through a human society as similar to the one of genes in biology. Dawkins even coined the term ‘meme’ to label such cultural elements and to highlight the correlation between the two. (Dawkins, 2006, p. 192)

The following chapter will attempt to establish the specificities of the correlation between the ‘gene’ and ‘meme’ for the sake of providing a theoretical background that memetics, as a field of study that is concerned with memes, can be based upon.

Since the meme became a point of interest almost half a century ago, too little effort has been put into bringing memetics as a field of study to maturity, and thus it has remained since as part of the sphere of pseudo-sciences. This chapter will also attempt to provide an initial

theoretical framework that would perhaps bring memetics closer to the domain of social sciences and revive the scientific pursuit for it to become a serious field that can be based in such a way it could be measured, anticipated, and controlled.

II. The Replicators of Life: *Genes Versus Memes*

One can argue that there is no scientific theory that is greatly renowned, yet, disputed and misunderstood as the theory of evolution. Evolutionists cannot even agree on a single explanation for evolution, religious fundamentalists attack it as it conflicts with their faith, and the regular individual cannot fathom the theory itself adequately. Nevertheless, such field of research is making great strides especially in the 21st century.

Today, according to the main stream, we are no longer debating whether we, as a race, are evolving in a similar way to other organic species but debating the possibility of being an active player in our agnostic blind cycle of evolution. Ambitious projects like Genomic sequencing² and CRISPR³ are revolutionizing all fields of biology to an extent that was regarded as “science fiction” few decades ago. These projects are a reality thanks largely to the accumulation of research data over the decades by many scientists that was crowned, in 1952, with the discovery of the DNA Helix structure⁴ by Nobel Prize winners, the American biologist **James Watson** and English physicist **Francis Crick**.

² Genomic sequencing refers to the process of determining the precise order of nucleotides in a DNA molecule. It involves analyzing the genetic material to decode the entire genetic information of an organism or a specific gene. This technique allows scientists to understand the structure, function, and variations within genomes, providing valuable insights into the genetic basis of traits, diseases, and evolutionary relationships

³ CRISPR is a revolutionary gene-editing technology that allows scientists to precisely modify DNA sequences. It utilizes a bacterial defense mechanism to target specific genes and make changes, such as correcting mutations or introducing desired genetic modifications. CRISPR has immense potential for advancements in various fields, including medicine, agriculture, and biotechnology, by offering opportunities for treating genetic diseases, developing new therapies, and enhancing crop traits

⁴ The DNA helix is a twisted double-stranded structure that carries genetic information. It consists of paired bases held together by hydrogen bonds, forming a ladder-like shape. This structure enables the storage and transmission of genetic instructions.

The discovery of the DNA double helix structure was as ground-breaking as the concept of evolution itself. For the first time in history, the human being is able to perceive and read the “code of life” (DNA) and alter its components (genes) which opened a floodgate of promising possibilities like curing chronic diseases, genetic modification, and perhaps the ever-eluding aging reversal process.

The catalyst of genetic engineering, the gene, was also an inspiration to many thinkers like Richard Dawkins who sought not just to comprehend the nature and behaviour of these genes but also to grasp the rationale behind it. In his book “*The Selfish Gene*” (1976) Dawkins approached the phenomenon of *Evolution* from a rather peculiar angle, the angle of the metaphorical gene’s eye.

Through the gene’s eye, Richard Dawkins introduced a highly controversial approach that regarded the gene in itself as a selfish replicator that uses humans and organic creatures as vehicles to sustain and replicate itself. He went even further to introduce a new form of replicators similar, to some extent, to the genes, but they differ in the point of their intrinsic nature. He believed that we, as humans, are distinguished from animals due to our culture, and this culture itself is passed or replicated from one another and from a generation to the next just like genes. In the same book, Dawkins coined the term “*Meme*” and defined it as the “second replicator of life”.

Memes and its young field of study, Memetics, generated a ripple effect through the scientific community because of its controversial elements. However, it brought a fresh air to modern philosophy and cultural studies as it brought biology and humanities together in an elaborate way which makes it a promising concept to approach literature with. Still, Memetics proves to be challenging as it requires an above average understanding of many elements in biology and genetics like theory of evolution, natural selection, heredity, genes, and DNA.

I.1. From The Genome to the Gene

The year 2023 marked the 70th anniversary of the historic discovery of DNA Double Helix structure by James Watson and Francis Crick (Watson & Crick, 1953) but marks the 153rd anniversary of Friedrich Miescher first ever indirect discovery of DNA when he isolated the “hereditary material”, or how he called it back then, the “nuclein”, in 1869. Miescher uncovered what would become known as the "Genome" after more than a century of further exhaustive study.

Virtually, in every human cell, except red blood cells, resides a complete copy of the approximately 3 billion DNA base pairs, or letters, that make up the human genome. This genome can be divided into 23 pairs of chromosomes⁵ (46 chromosomes in total) condensed into the nucleus of a human cell. These pairs are Deoxyribonucleic Acid Strands (DNA) that are formed by base pairs of chemicals known as genetic alphabets. The four bases adenine (A), thymine (T), guanine (G), and cytosine (C) can only be paired specifically as A+T and G+C sets. In a similar fashion, the sequential order of the As+Ts and Cs+Gs determines the encoding's meaning of genetic information just like the order of letters determines the meaning of a word (A-Brief-Guide-to-Genomics, n.d.)

These encoding chemical pairs (around 3 billion base pairs) could be divided into two main categories according to their function. Approximately 99% of these base pairs form what is defined as Non-Coding DNA (What is noncoding DNA?, n.d.). In the past century, scientists thought that Non-Coding DNA was “junk” of parasitic nature and of no purpose. However, the latest researches showed that at least some of it is active and vital to the function of the cell especially when it comes to gene activity like the sequences that act as regulatory elements

⁵ Chromosomes are thread-like structures located inside the nucleus of animal and plant cells. Each chromosome is made of protein and a single molecule of deoxyribonucleic acid (DNA). Passed from parents to offspring, DNA contains the specific instructions that make each type of living creature unique. (www.genome.gov)

(off/on gene switch). On the other hand, the remaining 1% Coding DNA represents instructions of how to assemble different proteins needed by the cell. This 1% is divided roughly into 20.000 to 30.000 meaningful strands called genes (What is noncoding DNA?, n.d.)

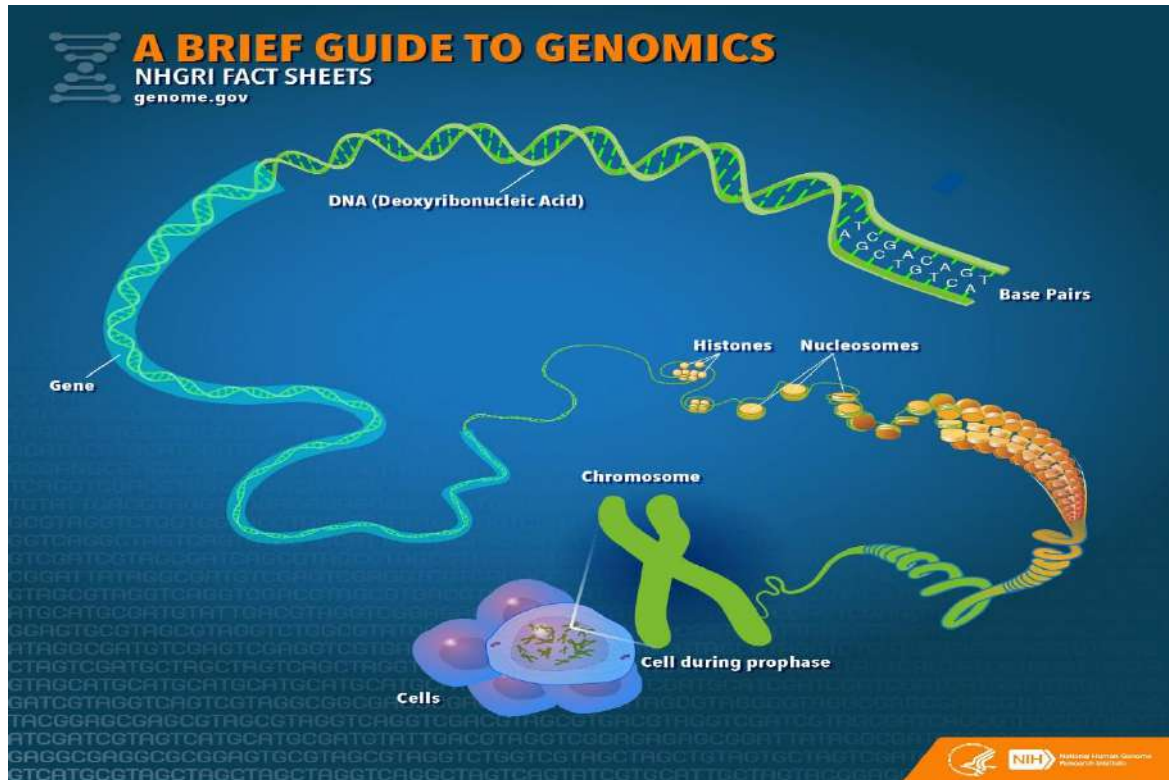


Figure -1-

The genes are considered as the basic building blocks of heredity. Some genes function as instructions for producing the bio-molecules known as proteins. The size of the human gene ranges from around 200 DNA base pairs to more than 2 million base pairs. Scientists classify genes according to their distinctive names. Due to the length of gene names, they are also given symbols, which are short sequences of letters (and sometimes numbers) that indicate an abbreviated form of the gene name. For instance, a gene on chromosome 7 linked with cystic fibrosis is termed the cystic fibrosis transmembrane conductance regulator (CFTR). (what is a gene? , n.d.)

Almost every human trait and illness have a genetic component, whether inherited or influenced by environmental variables such as exercise. Additionally, genetic components may influence how the body reacts to external variables such as toxins. Such characteristics of the genes led Dawkins and many other biologists to regard the gene itself as “the unit of selection”.

The question of "units of selection" is a fundamental aspect of evolutionary biology. While the debate surrounding it is complex, the basic issue is simple. In a Darwinian explanation, such as the increase in average running speed in a zebra population over time, the individual organism is considered the "unit of selection." It is the differential survival and reproduction of individual zebras that leads to evolutionary changes from one generation to the next. However, the principle of natural selection can be also applied abstractly without specific reference to organisms. In other words, this principle is applicable to entities at various levels of the biological hierarchy, including genes, cells, organisms, and even whole species. The hierarchical nature of biology and the abstractness of natural selection provide a range of potential units on which selection can act. (Lewontin, 1970)

For decades now the debates on this issue is still very much alive. The notions of “replicator” and “vehicle” were introduced by biologists like Dawkins in order to refer to the different roles in the evolutionary process. In this premise, the same individual zebras are referred to as "vehicles," while their genes that contribute to their swiftness are called "replicators." The argument for genetic selection proposed that the focus of the units of selection debate should shift from vehicles to replicators. Examining these two distinct units of selection is the key to properly understand the concept of the gene and by extension, the meme as “the replicators of life” (Units and Levels of Selection, 2017)

I.1. The Gene: the first Replicator

The quest for the secret of life has intrigued humanity since the age of reason. The relative answer, according to Biology, is as much intriguing as the question. In all live organisms of our planet, the lion share of hard work is done by proteins that are created out of mainly 20 amino-acids. The bending, folding, and diversity of shapes that proteins offer make them the catalyst substances of huge range of chemical reactions that are essential to life.

The genome is an intricate instructional manual as it holds the information needed for the creation of these proteins. The DNA molecules, mainly the genes, are the responsible strands for assembling different types of proteins according to the function of the cell and through the process of gene expression. Correspondingly, the same genes are what makes us carry our parents' eyes, their nose shape, or their skin colour. It is our biological inheritance of generations and generations of ancestors.

The typical difference between the genomes of two individuals, save identical twins, is estimated at around 3 million base pairs or 0.1% of the total of 3 billion base pairs of the genome (Understanding Human Genetic Variation, 2007). Remarkably, the genetic similarity is not exclusive to primates like the chimpanzee (96%), as widely thought, but is shared with all living organisms. The genetic similarity between humans and cats (90%), mice (85%), cattle (80%), fruit fly (61%), bananas (60%), and chicken (60%) showed that genes are universal codes that survived, mutated, and multiplied greatly in our planet (Pflanzer & Lee, 2018). Such findings changed the views of scientists like D. Hull and R. Dawkins who attempted to see evolution and natural selection from a different angle, the angle of the gene itself.

Biologists began to perceive the gene, not the individual unit or organi, as the fundamental unit of natural selection in evolutionary processes within sexual populations. This is mainly due to the fact that other potential candidates, most notably entire organisms and groups, do not "replicate." Dawkins considered such organisms and groups as temporary and

short-lived as "clouds in the sky or dust storms in the desert," (Dawkins, *The Selfish Gene*, 2006, p. 34). Thus, only an entity that is capable of participating in many generations of selective processes can be regarded as a unit of selection or a replicator. However, such classification led to many debates and arguments among few leaders of the fields like R. Dawkins, S.J. Gould, R.C. Lewontin, and D.L. Hall. in life's essential processes of Replication, Transcription, and Translation.

I.1.1. Vehicles and Replicators

Approaching evolution and natural selection through the "gene's eye" raised many debates concerning the plausibility of seeing genes as "replicators" and complex organisms as survival "vehicles" that serve the continuous evolution and replication of such genes. In his book *The Extended Phenotype* (1982), Richard Dawkins defines a replicator as

"...anything in the universe of which copies are made. Examples are a DNA molecule, and a sheet of paper that is xeroxed. Replicators may be classified in two ways. They maybe 'active ' or 'passive', and, cutting across this classification, they may be 'germ-line' or 'dead-end' replicators." (Dawkins, 1982, p. 83)

Unlike his descriptive example of a passive replicator (a xeroxed sheet of paper that has no influence in its copying), Dawkins believed that the DNA molecule is an active replicator as its intrinsic nature, to a degree, influences its replication. Through protein synthesis, the DNA molecule exerts phenotypic effects to influence its own probability of being copied. Most DNA molecules in our body cells are dead-end replicators, in other words, they replicate "...a finite number of times, giving rise to a short chain of descendants" (Dawkins, 1982, p. 83). On the other hand, Dawkins saw the gene as a germ-line replicator that "...is potentially the ancestor of an indefinitely long line of descendent replicators." (Dawkins, 1982, p. 83). For instance, the DNA in a liver cell replicates a finite number of times which makes it a dead-end replicator

whereas the DNA of a zygote is a germ-line replicator, because it represents a potential ancestor of all the cells in a given organism (Dawkins, 1982, p. 2).

Recognizing the DNA's genes as a germ-line active replicator forwarded a rather different response to the question of who is the "fittest" in the notorious principle of "survival of the fittest". Darwin saw that not the species nor the group but the individual is the fittest, however, this answer could not explain the odd altruistic behaviours that served the group and species instead of the individual unit.

In an army ant colony, each individual increases the fitness (survivability chances) of other individuals in the population on the expense of its own level of fitness. Such altruistic social behaviour including self-sacrifice is to be seen as mutually altruistic acts (Ichimura, Uemoto, Hara, & Mackin, 2014, p. 1) in which the only explanation for such acts is, logically, to secure a higher probability of survival and propagation of the colony, mainly the queen.

In that regard, Dawkins believed that the fittest is not the individual but what is within that individual that is shared by the whole group or species. He saw biological organisms, including ours, as "...survival machines—robot vehicles blindly programmed to preserve the selfish molecules known as genes." (Dawkins, 2006, p. XXI). In that regard, one can perceive the gene as the real replicator, whereas the individual body, formerly categorized as the replicator, as its host, a surviving propagating biological machine:

"The vehicles that we know best are individual bodies like our own. A body, then, is not a replicator; it is a vehicle... Vehicles don't replicate themselves; they work to propagate their replicators. Replicators don't behave, don't perceive the world, don't catch prey or run away from predators; they make vehicles that do all those things." (Dawkins, 2006, p. 254).

Successful replicators are those which could construct for themselves containers or vehicles to ensure their existence. With the emergence of different life forms on earth, surviving and

propagating became harder as new rivals arose with more advanced and effective survival machines. Hence, "...Survival machines got bigger and more elaborate, and the process was cumulative and progressive." (Dawkins, 2006, p. 19)

Dawkins saw the gene as the core of the unit of selection giving it the title of the fittest and the germ-line active replicator despite the fact that genes are not directly visible to natural selection or exposed to it. In his defence, he argued:

"...the individual is too large and too temporary a genetic unit to qualify as a significant unit of natural selection. The group of individuals is an even larger unit. Genetically speaking, individuals and groups are like clouds in the sky or dust-storms in the desert. They are temporary aggregations or federations." (Dawkins, 2006, p. 34)

Individual bodies or vehicles are not stable through evolutionary time and a given population may blend with other populations and lose its identity. In a sexual reproducing species, like us, the individual is unique and its children are only half of him and a quarter of their grandparents due to the fact that the children genetic map is formed out of the union of the genetic map of both parents. In a few generations, there will be so little of that individual in his descendants that the only clear heirloom of him is his last name. (Dawkins, 2006, p. 34). Therefore, the individual body cannot be defined as a replicator because it does not have a high copying-fidelity⁶. It can be a selective vehicle in which the replicator resides. In his words, Dawkins stated that "...replicators do not expose themselves naked to the world; they work via their phenotypic effects" (1982, p. 8)

Fundamentally, the phenotypic effects are the manifestation of the genetic replicators residing within an organism (vehicle). They are weapons of survival like feathers and fangs that raise the fitness of the host organism in the battlefield of the environment where rival vehicles

⁶ Copying-fidelity is another way of saying longevity-in-the-form-of-copies (Dawkins, 2006, p.28-29)

with different genetic replicators compete for the limited amounts of food and propagation chances.

According to the main stream biologists, nature selects genetic replicators indirectly through their hosts, via their phenotypic effects. In practice, vehicles with longer legs could be more successful in escaping predators in a specific environment which means such vehicles would be fitter to survive and reproduce compared to those genetic replicators with vehicles manifesting short legs. To a mole, however, the same phenotypic effect of long legs would be a burden and a fatal trait which means that genes with phenotypic effects are not universally good or bad (Dawkins, 2006, p. 36). Their significance is measured in reference to its gene pool.

Some traits, for example, are necessary in an efficient carnivore's body like sharp cutting teeth and the right kind of intestines for digesting meat. Contrarily, an efficient herbivore, requires flat grinding teeth, and a much longer intestines with digestive chemistry that digest grass. In the herbivore gene pool, any new gene that manifests on its vehicle sharp meat-eating teeth would not be very fit for survival and ultimately would not succeed. This is not necessarily because meat-eating teeth gene is inherently a bad gene, but because this gene is not compatible nor efficient with the rest of genes within the vehicle like the ones of the digestive system.

Hence, there is no inherently bad or good genes, there is only bad genes in gene pool where specific collaborating genes are dominant like herbivorous or carnivorous pools (Dawkins, 2006, p. 36). Dawkins argued, however, that there might be a number of universal properties that mark the gene as bad or good, but the most relevant one according to him is whether a specific gene is selfish or not. (Dawkins, 2006, p. 36).

I.1.2. The Selfish Gene

A gene so far can be defined as a specific portion of chromosomal material that would survive for generations as a replicator with high copying-fidelity. In theory, a gene can live for a million years by means of high-fidelity replication which means it cannot grow senile. It is unlikely expected to die or get extinct when it is a million years old more than when it is only a hundred (Dawkins, 2006, p. 34). Still, not all genes can move past the first generation, and this is due to their luck but, most importantly to their skill, or the lack of, in making good survival machines (Dawkins, 2006, p. 28).

Genes are enduring molecules, but they are hugely dependant on the survival of their vehicles. They would gain an advantage from selfishly stimulating the wellbeing of their own individual vehicles, at the expense of the other vehicles in the group. This is to be true in a case of a wolf within a wolf pack as every wolf has the chance to reproduce on its own which conjointly parallels the genes' selfishness. However, after careful observation, in a swarming bee-hive, the destiny of individual vehicles (drones and workers) is largely shared and to some extent irrelevant, as far as the genes are concerned. Noticeably because the future of the genes in the swarm is mainly staked in the ovaries of one vehicle and its survival, the queen. Thus, the bee colony tend to behave like an actual cohesive single vehicle where we could observe, superficially, altruistic behaviours between its members (Dawkins, 2006, p. 256).

Through the gene's eye, this altruistic behaviour within the swarming species, where replication is linked entirely to one vehicle, is not truly altruistic but selfish even. The significant difference between the wolf pack and the swarm is that most of the pack members probably can survive and propagate on their own leading to the continuation of gene replication despite losing members of the pack; thus, the need for high altruistic behaviour patterns is not naturally selected. Whereas, in the swarm, an altruistic behaviour like self-sacrifice is promoted by the selfishness of the gene to protect its only replication probability represented in the queen.

Nevertheless, such basic account does not explain the numerous situations in which selfish animals behave altruistically.

Ethologists came to many theories to explain the reason and logic of how altruistic behaviour patterns are formed in selfish animals. Hamilton's Kin Selection is perhaps one of the most prominent theories that adopt the gene's eye angle. The term was originally coined by Maynard Smith in 1964, and it meant the corporation of the element of reproductive success or the fitness of relatives in the decision making of an organism and its effect on its actions and optimization of its own fitness in the face of natural selection (Garcia, 2017, p. 2). For Hamilton, the rule for kin selection is as follows:

$$rB > C,$$

Where:

- r = the genetic relatedness between the actor and the beneficiary
- B = the fitness benefit to the beneficiary
- C = the fitness cost to the actor.

According to this mathematical equation: "kin selection should occur when the indirect fitness gain of one outcome (rB) is likely to be greater than the direct fitness gain of the alternative outcome (C)."

 (Garcia, 2017, p. 2)

The most common and applaud acts of animal altruism are done by parents, specifically the mothers, towards their offspring. The mother would incubate its offspring either in nests or within its body and feed them at a huge cost of energy and risk to itself in protecting them against predators (Dawkins, 2006, p. 6). Explaining the mother's behaviour through kin selection makes it less of an altruistic nature and more of a selfish act on behalf of the gene because its future of reproduction lies in the new young vehicles fitness which makes them

more valuable than the vehicle of the mother. In other words, the trait of selfishness within our replicator, the gene, might be present even in the most altruistic acts of a living organism.

Even though the collections of these selfish genes seem to be distant from the micro level of genetic processes, these behaviour patterns, altruistic may it be or selfish, is indirectly under the control of genes in a powerful way through dictating the way the vehicles nervous systems and brains are built. The latter became the executive moment to moment decision makers whereas genes remained as overarching policy makers. Biologists presume that the process of evolution meant more complexity and advanced abilities acquired by the brain like learning and simulation. Consequently, these complex brains acquired more and more complex policy decisions on the behalf of the genes. According to Dawkins, the logical endgame of this projection of evolution, which is still not achieved by any organism, would be one single overall instruction given to the vehicles summed up as "...do whatever you think best to keep us alive." (Dawkins, 2006, p. 60).

From the point of view of the selfish gene, the real purpose of the DNA is to survive and, thus, to preserve and replicate the genes. However, the genes represent a mere 1 to 2 % of the whole DNA, and biologists are racking their brains trying to justify the remaining surplus of the human DNA. Despite making some breakthroughs and discovering new functions, evolutionary biologists like Dan Graur still believe that what is functioning with our DNA cannot surpass 15%. (Graur, 2017, p. 1882)

Graur used mathematical modelling in an attempt to determine how much of our DNA could be functional by considering the frequency of deleterious mutations⁷ that occur within our genome through time. The lethality of these mutations led him to estimate 15% as the upper

⁷ A deleterious mutation is a genetic alteration that increases an individual's susceptibility or predisposition to a certain disease or disorder. When such a variant (or mutation) is inherited, development of symptoms is more likely, but not certain. Also called disease-causing mutation, pathogenic variant, predisposing mutation, and susceptibility gene mutation. (www.cancer.gov)

limit of the functional fraction within the human genome as any excess over this number would lead to the accumulation of deadly mutations at an alarming rate that prevent humans from sustaining their population (Graur, 2017, pp. 1883-1884).

Dawkins saw that the simplest way to justify the existence of the surplus DNA, the 85% if we take Graur's experiment as a bedrock to our analysis, is to think of it as a parasite or a harmless and useless passenger sailing on the vehicle created by the DNA (Dawkins, 2006, p. 45). On the same grounds, we can view the genes themselves as parasites cruising through life on survival machines; parasitism is the most popular lifestyle on earth after all.

In nature, parasitic behaviour could be seen in all different branches of the phyla. Similar to how genes functions, parasites generally manipulate their hosts to do their bidding from within. The *Ophiocordyceps* fungus or the so-called zombie-ant fungi infecting ants is a clear illustration of internal parasitic manipulation. The infected ant is manipulated, through drugs or hormones, to leave the nest and to climb "...understorey shrubs, to die biting onto vegetation, or descend from the canopy to die at the base of trees." A behavioural change experiments showed that it aids spore dispersal which increases the chances of infection of other ants. (Araújo, Evans, Kepler, & Hughes, 2018, p. 1)

Other parasites do not need to influence its host's behaviour and others do not even need to be within their hosts to survive and continue their life cycles. External parasites can devour an organism's tissue or suck its blood, but the infamous Cuckoo bird comes into the discussion as one elaborate example of a parasitic behaviour. The manipulation for the brood parasites does not occur from within or through drugs and hormones like zombie fungi but through deception. The cuckoo is an obligate brood parasite which means it must find a nest to lay its eggs and deceive these birds to be their foster parents. For the sake of maximizing the chances of its egg's survival, the cuckoo bird would use egg mimicry, in which its egg would resemble

the ones of the foster parents, and remove one of these eggs to reduce chances of rejection. The egg would hatch earlier than the hosts' eggs positioning the young cuckoo at an advantageous situation. As soon as it gets some strength, the young cuckoo would do its best until it will succeed to roll out all the eggs off the nest, so it can monopolize all the food coming from the foster parents. Such adaptations for the sake of manipulating the behaviour of foster parents could be regarded as "...an extended phenotypic action at a distance by the cuckoo genes" (Dawkins, 2006, p. 248).

Genes have demonstrated a great flexibility in creating methods of parasitism since their success in hijacking the biological organism to do their bidding and to be their propagating survival machines. However, according to Dawkins, through their own evolutionary process, genes doomed themselves to be a victim to parasitism by another more elaborate and advanced parasite, the meme.

I. 2. The Meme: The Second Replicator

The twilight of the DNA age is upon us heralding the end of its ultimate reign. However, such an end is nothing but the closure of a chapter and an opening of another in the human species' saga. According to Dawkins and Richard Brodie, we, as a species, have reached a higher stage of evolution in which genes have taken the backseat in effecting the path of our lives. What made us stand out from other living beings today is what have taken the lead from our genes, it is our culture.

Culture, in the broad sense, is not unique to men as some species like the Saddleback birds of New Zealand had shown. By comparing songs of fathers and sons, Philip. F. Jenkins reached a conclusion that young males do not genetically inherit songs, but they adopt them through imitating one or few patterns from territorial neighbours (song pool) in a similar manner of how humans analogously acquire a language (Dawkins, 2006, p. 190). Still, such 'cultural

oddities' are far inferior to what the human culture had become today or to what extent it is influencing the species' path of evolution.

The human culture is vastly diverse and complex. It is far more than our languages, or imitation of behaviours; it is our traditions, religions, arts and music, school of thoughts, and institutions etc. that shaped and are shaping our lives and social bonds to this day. Unlike the genetic evolution that happens to be so slow it needs a leap of faith to believe in, cultural evolution can be observable in one's life time.

One of the most interesting and equally controversial intakes on cultural evolution is Dawkins' concept of the "meme". For him, a meme is another replicator and just like the gene, it was born within a primeval soup, the new soup of human culture. He derived the term from the Greek root "Mimeme" (imitated thing) to convey the idea of transmission of a unit of culture; memes are elements like tunes, ideas, and fashionable clothes that are propagating themselves within a meme pool through jumping from one brain to another just like genes do by leaping from a body to another by means of sperms or eggs. He further pointed out that such process of meme propagation, in its broad sense, can be seen as a process of imitation (Dawkins, 2006, p. 192).

Nicholas Humphrey, a renowned neuropsychologist, believed that "memes should be regarded as living structures, not just metaphorically but technically." (as cited in Dawkins, 2006, p. 192). If we are to accept Humphrey's perspective and regard memes as living structures, we ought to accept a technical analogy of such memes based on its similar counterpart and source of inspiration, the gene.

To this point, there is no clear restrictive identification to what a meme can be or how long or short it ought to be. However, using the frame of the gene as a replicator, we can base our identification of a meme unit on the three key elements of longevity, fecundity, and

copying-fidelity. According to Dawkins, a meme's longevity, as in the case of genes, is of less importance compared to fecundity. One can preserve an idea or a song in his brain for as long as he lives, but our ability as humans to make copies of such memes into cultural artefacts like papers is what makes these memetic units survive for centuries to come (Dawkins, 2006, p. 194). Yet when it comes to the copying fidelity element, the analogy starts to fall apart as memes rarely are transmitted from a person to another with high fidelity; Observing the game of Chinese whispers⁸, for instance, demonstrates how much a passage can be distorted through its path of transmission. Nevertheless, the same thing occurs with genes. The inheritance of characteristics like skin colour or height is not passed with high fidelity through indivisible genes as generally what is passed to the next generation is seemingly a mixture or a blend of both parents' genes. Accordingly, the meme can be defined, just like the gene, a "a unit of convenience, with just sufficient copying-fidelity to serve as a viable unit of natural selection." (Dawkins, 2006, p. 195).

Despite the fact that genes and memes are not isomorphic replicators, they are partially similar. Comparable to genes, memes exist in small and large units where we can find units within other units clustered or bundled together to form cultural structures like ideologies and religions similar to how bundles of genes form chromosomes. The survival of these memes, whether they were simple units or complex bundles, is highly dependable on their 'fitness', in other words, their attractiveness to the human mind. Fashion trends have great attractiveness and spread rapidly, but they are short-termed and do not last long in the meme pool (cultural pool). On the other hand, religions like Judaism, Christianity, and Islam are resilient and propagating for thousands of years now.

⁸ Chinese whispers or telephone is an internationally popular game in which players form a line, and the first player comes up with a message and whispers it to the ear of the second person in the line. The second player repeats the message to the third player, and so on. Finally, the first and last player exchange messages to check resemblance.

To conclude, one can consider that our culture is composed of fragments like memes that are competing against each other. The survival or extinction of a meme depends on its ability to infect our brains better than other memes. Acting like a parasite, a meme is implanted in fertile minds through a cultural contact with another human being or a cultural artefact which carry that meme. The fertile minds will become hosts or vehicles for this meme imitating it or behaviours inspired by it, and sometimes a condition of zealous faith will materialize on these minds as they become its new tireless super-spreaders.

Referring back to the above-mentioned example of the zombie-ant fungi demonstrates how dangerous a parasite can be in influencing behaviours and decisions of an organism. However, due to its consciousness, the human mind has some power in regard of being infected. Yet, the availability of choice should not necessarily mean that a super-spreading meme is inherently the “best” or greatly valued and vice versa. Because imitation is, in its broad sense, the way memes replicate, a super-spreading meme might be simply the easiest to imitate or the most commonly accepted by others, with no regard to how flawed or erroneous these memes might be. As of now, Memetics as a field of research is still attempting to understand and answer such problematic questions by aiming towards grounding it on an empirical foundation.

II. Memetics: A science yet to be born

Since the meme became a point of interest almost half a century ago, little study has been done to investigate whether memetics can be scientifically based in such a way it could be measured, anticipated, and controlled. To the best of our knowledge, memetics research has been conducted in small, scattered efforts by academics working on their own time, the majority

of whom are not Americans. Until recently, no concerted effort has been undertaken to determine if a scientific basis for memetics could be established (Finkelstein, 2008, p. 12).

Perhaps one of the reasons for the situation memetics is in today is that, according to some critics, “memetics has joined extraterrestrial, exo or zenobiology as a science devoted to a subject matter whose very existence remains in dispute!” (Blute, 2005). Ironically, Blute added that those who view the meme as more amorphous or ambiguous than that of the gene are lacking sufficient knowledge in the area of biology. For that the DNA itself and its long molecules with their units of structure, function, replication, and recombination are as ambiguous as the meme (Blute, 2005). Even though such reasoning does not qualify as a justification for recognizing the existence of memes, it does entail us giving the concept and the field of memetics another chance, albeit its issues.

Prominent intellectuals and TED talks speakers like Susan Blackmore and Daniel Dennett do take the matter seriously. Susan Blackmore, Ph.D. in Parapsychology wrote *The Meme Machine* (1999) whereas Daniel Dennett, a leading philosopher of artificial intelligence, “... writes as if the existence of memes were an established fact. A human being, he says, is an animal infested by memes.” (as cited in Finkelstein, 2008, p. 271)

Additionally, DARPA⁹ and NATO have recently adopted a rather similar viewpoint on the potential importance and threat of memes, ideas that propagate specific ideologies to be precise, and begun focusing on weaponizing them. Memetics, or the study of memes, has emerged as one of the new frontiers of contemporary military warfare according to Dr. Robert Finkelstein (2008, p.17). However, this area of research is still overlooked despite its great potential. Not only that, but the meme concept and its derivations are still notoriously

⁹ The Defense Advanced Research Projects Agency is a research and development agency of the United States Department of Defense responsible for the development of emerging technologies for use by the military.

controversial today despite the fact that, in a sense, the only novelty Dawkins brought forward is the term “meme” and its refreshed angle of approaching a variety of already under discussion interrelated phenomena like Darwinism, natural selection, evolution, human culture, ideologies etc.

Memetics is far from the only discipline to embrace a Darwinian-style evolutionary theory of "descent with modification" including cultural transmission, variation, and selection. It has been some time now since social scientists began to do so in order to further their understanding of language, science, technology, and social and economic organizations. When he first thought of it, Darwin's concept of biological evolution was nothing more than a neat idea. It came about as a theory when it was based on established scientific disciplines like botany, palaeontology, geology, and taxonomy. Without these disciplines to serve as a launching pad, Darwin's neat idea would remain just that, neat. As of lately, memetics lacks such supporting disciplines. This is partially due to the lack of coherence in the social sciences and partially due to memetics' reluctance/inability to coordinate its project with existing fields (Finkelstein, 2008, p. 58). Dr. Robert Finkelstein believed that behaviourist sciences, phenomenology, communication theory, systems theory, Artificial Sociality (ASoc) and cognitive sciences is a non-exhaustive list of fields that memetics should be based and developed upon in order for it to emerge as a science (Finkelstein, 2008, p. 58)

It is indeed a thousand-mile journey in its first steps where the destination at the end of the road is still yet to be glimpsed, but again, so was the case for many disciplines before. For the sake of consistency, another parallel would be drawn between biological evolution and Memetics the same way Dawkins, Blackmore, Dennet, and others did with genes and memes. The primary logical step here is to ground memetics as a discipline on the concept of "meme" itself first. But again, the definition is still debatable among memeticists, mainly between approaching the meme from a gene-like or a virus-like perspective.

I.3. The Meme: The Virus vs The Gene

“An invasion of armies can be resisted, but not an idea whose time has come.”

— attributed to Victor Hugo

According to the evolutionists, the human brain has evolved through time to deal with more and more complex operations to raise the organism's fitness level. Our brains became responsible for the execution of day-to-day survival affairs, which led them to acquire more abilities like understanding and predicting the future and planning accordingly (Dawkins, 2006, pp. 59-60). However, Dawkins also believes that the magnum opus of genes' evolution through natural selection, the human brain, could be at the same time its downfall.

Biologists believe that as soon as our brains evolved to the point we became able to receive, memorise, alter, and communicate ideas, our culture began to evolve. Our brains transformed from being a passive tool for the genes to a battleground for influence between the instinctive gene and the cultural meme. Such conflict is analogous to another battleground for influence that emerged within memetics between approaching the cultural meme as an analogy of a gene that is inherited from a generation to another or as a parasite that hijacks the brain to do its bidding despite the fact that might be against the dictates and interest of the gene itself.

It is generally conceived that genes are pieces of DNA, but in fact, they are pieces of information that are digitized through DNA molecules of A, G, T, and C (refer to page 05). In the same sense, memes are also pieces of information that are digitized through the letters or phonemes of human languages. These memes spread via observing a range of social interactions, experiences, and outside media influences. However, only social learning by instruction that is based on information encoded in letters or phonemes of a given natural

language can support the infinite and accurate inheritance of these memes, avoiding, in the process, the degradation associated with analogous systems like observational learning. Therefore, it is essential for supporting the cumulative evolution of complex sociocultural entities like religions and schools of thought (memplexes).

The fact that the majority of cultural transmission in societies occurs horizontally rather than vertically in relation to genes, memes are more akin to viruses than genes in terms of propagation. On one hand, genes need gametes to propagate from one generation to another and even then, they would propagate only 50% of their initial copy set due to the fact that both sex cells of the male and female contain only a single set of their original chromosomes. On the other, viruses need only to hijack a copying machine, normally a cell, to be able to copy itself and propagate.

In the process of copying itself, DNA, which constitutes the gene, is higher in fidelity than its counterpart RNA, which constitutes most of the viruses that infected human populations for the few past centuries. However, when it comes to propagation, the virus has more fidelity despite its huge rate of mutation per round of genome replication¹⁰, because gametes are haploid cells. The analogy, in this case, seems to be more aligned with the virus-like view of the meme. After all, quite similar to viruses, memes are out there until they enter highly effective copying machines, which are our brains in this case, and start to propagate themselves where they would be mutated and altered through the cycles of copying, just like in the Chinese whispers game (refer to page 22). Memes can also induce acts that are biologically harmful to their hosts the same way viruses act against the biological fitness and interest of their targeted host organisms.

¹⁰ RNA viruses possess the highest mutation rate of all known species, ranging from 10^{-4} – 10^{-6} mutations per round of genome replication (<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6267201/>)

Social scientists were fully aware of this but never paid enough attention to the implication that culture might be evolving within a pattern that is indifferent to the host's biological fitness. Many memeticists went beyond that and emphasized that our culture, in a general sense, parasitizes our biology. To use an extreme example, the memplexes that characterize a sect or cult membership frequently and in a ruthless manner exploit their members' biology, convincing them through mythical appeals to isolate themselves from their real families and devote their entire lives to the survival and spread of the social identity associated with cult membership (Blute, 2005).

This virus-like analogy suggests that basic principles of infectious disease epidemiology may be applied to memes in order to determine whether they would become benign or virulent relative to genes. According to those principles, memes not only can be vertically transmitted the same as genes but also transmitted horizontally with a larger multiplicity of infection through direct contact of the population with virulent vectors.

Richard Brodie, an author and one of the original creators of Microsoft Word, went even further and saw memes as more than just parasitic viruses. According to him, they "...are to a human's behavior what our genes are to our bodies: internal representations of knowledge that result in outward effects on the world" (Brodie, 2009, p. 7).

The effect on behaviour doesn't always go hand in hand with what is beneficial for the genes. The meme for celibacy, for instance, is a vow that prohibits the clergy from taking a spouse or to have any sexual intercourse. If we consider a priest as a meme machine or virulent vector, vows of celibacy will make sure that this priest will dedicate his whole time and life in influencing other individuals to join and convert, in other words, to propagate this meme. In the same time, the celibacy meme is influencing the behaviour of the priest in a way that is reducing his biological fitness considering that the logical instruction for the genes is to encourage the

priest to have as many children as possible (Dawkins, 2006, pp. 197-198). Instead of being a useful tool in propagating the genes, the human brain abruptly changed its functionality to become perhaps doing more harm than good concerning gene replication.

The progression of a meme within the brain is closely similar to how a virus may parasitize the genetic mechanisms of a host cell to replicate itself. Brodie saw that viruses do not exist exclusively within the biological realms or in the man-made world of computers, programming, and electronic networks; they exist also in the universe of the mind, culture, and thought (Brodie, 2009, pp. 36-37).

A virus is not simply a parasite; it is more than a mere infiltrator and an unrestrained self-copier. It is all of these at the same time. It is "... anything that takes external copying equipment and puts it to work making copies of itself." (Brodie, 2009, p. 38). Wherever there is a machinery or a copying mechanism, there is a high chance of a virus to exist. Ironically, our brains' ability to copy information and follow instructions is what makes us ideally susceptible to being infected by viruses of the mind (Brodie, 2009, p. 45). A viral meme can infiltrate our minds and copy itself with relative ease, because we excel at learning, copying, communicating, and imitating new information. A viral meme can spread itself by issuing 'instructions' and programming us to use new memes that would affect our behaviour in a way that would make us more prone to reaching out to other uninfected minds.

Another reason for taking viruses seriously is their ability to exponentially grow in number. Combined with our susceptibility to infection by a virus of the mind, an engineered or man-made virus would prove to be quite dangerous. Brodie believes that there are two distinct types of viruses of the mind, spontaneously risen and the ones invented by the human consciousness, which he calls cultural and designer viruses respectively (Brodie, 2009, p. 45).

Cultural viruses happen to come into existence in a random way. Due to the fact that our world is a world of limited resources and the existence of many other cultural viruses competing for those same limited resources (the human mind in this case), a sort of natural selection process occurs. Regardless of how simple or complex their initial form is, these viruses' fitness depends on either possessing efficient memes or evolving them before their competitors do. Some cultural viruses could be so successful that they evolve to become cultural institutions.

Brodie used an example, among many, of the panhandling to demonstrate how cultural viruses compete and survive. The business of 'begging' is an ancient one, but it has changed and evolved over the centuries. To be an efficient beggar, one needs to have the right memes that attract more donations. Begging with a child, for instance, proves to be more lucrative than without. Having a sign saying "Will work for food" evidently meant more donations rather than an offer of a job in exchange for food. These "pro" beggars, with their effective memes, monopolize donations and lead the other amateur beggars to either evolve or disappear. (Brodie, 2009, p. 170).

A more recent example of the evolving begging memes occurred in Algeria as local beggars pretended to be Syrian war refugees in order to increase donation, which in fact proved to be very effective. Televangelists are another example of how begging has developed as a result of the association of two very successful cultural organizations or memeplexes. Televangelists such as Robert Tilton, Kenneth Copeland, and his wife Gloria, through television and in the name of "Jesus", claimed to heal illnesses such as cancer and give riches and prosperity in return for contributions and donations. Televangelism has proven very profitable, with many preachers becoming millionaires.

Distinct from cultural viruses, which mostly evolve randomly towards self-perpetuation, designer viruses are of an artificial nature, consciously crafted to infect people with a specific set of memes for a particular purpose. They are the Machiavellian viruses of the future designed to serve their creators' agendas. A profit virus like the Ponzi pyramid scheme, which is based on memes like *window of opportunity* and *get rich quick* (Brodie, 2009, p. 198) is perhaps one of the most viral lucrative schemes even today.

Power virus is another form used by corporate America, for instance, to consolidate more power. Through this virus, a company would create a cultish culture that is based on values like *commitment to quality* and *devotion to customer service* in order to effectively align their workers towards the same direction. The company would also use the *Golden handcuffs* meme, which is a financial reward mainly in the form of stocks that is tied or escrowed to the long-term contribution of the employee to the corporation as a leverage to hinder or discourage him from leaving (Brodie, 2009, p. 203).

Despite the difference in their origins, both designer and cultural viruses can be equally influential and even harmful particularly considering that our behaviour can be unwittingly diverted under the influence of such viruses. However, according to Brodie: "In the not-so-distant future, the bulk of our culture will be composed of designer viruses." (Brodie, 2009, p. 196). Initially, both designer and cultural viruses would compete for a stake in our minds, but eventually, cultural viruses would lose because of their slow undirected evolution, on one hand, and the quick, intelligent, and directed creation of designer viruses on the other. Ultimately, our world would be ruled by competing designer viruses in an all-out war for the mind where the warring sides would get increasingly sophisticated, harnessing all possible means like technology of computer programming to simulate and fine-tune memes before releasing them to the public (Brodie, 2009, p. 203).

Even though memeticists disagree about whether memes should be conceived of as genes or viruses, both perspectives have made significant contributions to evolutionary social science. One would feel compelled to choose one or the other due to the fact that there is a clear distinction between the virus and the gene, and biology as a natural science is strictly unforgiving when it comes to such matters. Even though the meme is more analogous to the virus than the gene, this doesn't dismiss its similarities to the model of the gene which puts us in a conundrum of picking a side and risk subtracting a model that would prove beneficial in forming our understanding of the meme or pick both sides which is not a possible option in the first place because of the imposed strictness and limitations of natural sciences like biology in this instance.

While science is a powerful force in understanding the way the world works, it should not be taken as the truth or in the least the only path towards reaching it. The biggest hint here is that scientific theories have been consistently changing. As new knowledge or data becomes available, we must update all of our views which begs the question of how can a scientific belief be quite true if it is changeable ever time?

What sciences provides us with are working models and theories that, as faithfully and accurately as possible, represent or approximate reality as we perceive it and not necessarily the truth. Yet, it is undeniable that science does provide us with a collection of observable facts about the world. The twist here, actually, is how do we understand, interpret, use, and combine such facts in order to construct a larger picture that would supposedly aid us in predicting the behaviour and correlation of such systems in the natural world.

Moving from the restrict restraints of natural sciences towards the creative and intuitive fields of humanities is the road less travelled today. Perhaps breaking away from the limits of definitions in biology through taking its facts of the models of genes and viruses as a foundation

of the study of memes via a spectrum of sciences that encompass both natural and humanistic disciplines is the answer for bringing about memetics into maturity. Perhaps it is time for the latter to bring cooperation and consensus between these two opposing pillars of knowledge.

III. Liquid Memetics

Feasibly, one of the valid questions that can be raised around the proposition of juxtaposing biology next to other disciplines like sociology, philosophy, or even arts and literature is whether there is a common ground for such an endeavour. After all, the “disciplinary isolation” that C. P. Snow, a Pulitzer-winning biologist and a leading authority on myrmecology, identified as the problem of “the Two Cultures”¹¹ whereby the Arts/Humanities and the Sciences are viewed as opposite poles of knowledge is still considered the privileged discourse today.

For instance, natural scientists are mainly concerned with predicting and explaining natural phenomena via the observation of material entities under controlled experimental conditions. Their vocabularies are uncommon in that they are built on semantic and mathematical ideas (Kagan, 2009, p. 4) and are founded on three basic assumptions. First, no scientific explanation is ever completely correct; second, all phenomena are the end result of a series of predictable material processes; and third, natural phenomena lack ethical qualities (Kagan, 2009, pp. 57-58). These principles enable natural scientists to effectively explain a broad range of puzzling natural phenomena, contribute significantly to the national economy, and therefore enjoy, at the expense of humanities today, a high degree of public respect (Kagan, 2009, p. 51).

¹¹ Two Cultures Problem is that “Science is a distinctive culture which is not understood by literary people; and literary people form a distinctive culture which is not understood by scientists. So, have we returned to the original problem, if only in a slightly altered form? How can people, if at all, from different cultures (i.e. science as opposed to art) talk with one another? (<https://www.bu.edu/wcp/Papers/Scie/ScieRich.htm>)

Humanities, on the other hand, aims neither to predict nor explain the natural world but instead to understand the human being and his reactions towards “the events and meanings that humans impose on experience as a function of culture, historical era, and life history”. (Kagan, 2009, p. 4). Although the influence of historical conditions and ethical values are neglected in the natural sciences, they play a major role in the humanities (Kagan, 2009, p. 5)

Regardless of their level or the lack thereof in epistemological and objective rigor in terms of methodology, the arts/humanities fulfil a number of important tasks and provide a diverse range of knowledge to academia. Jerome Kagan, a prominent American psychologist, an emeritus professor of psychology at Harvard University, and one of the 100 most prominent psychologists of the twenty-first century, considers the humanities still relevant today because they:

provide divergent perspectives on the human condition and create objects of beauty. They also remind society of its contradictions, articulate salient emotional states, detect changing cultural premises, confront their culture’s deepest moral dilemmas, and document unpredictable events that punctuate a life or historical era.” (Kagan, 2009, pp. 230-231)

Kagan attempted to argue against Snow’s premise of the division of academia into two cultures. He believes that such assumption does not accurately represent the actual basis of the intellectual world, claiming that Snow overlooked another culture: Social Sciences. (Lowatcharin, 2016, p. 115).

In his book, *The Three Cultures: Natural Sciences, Social Sciences, and the Humanities in the 21st Century* (2009), Kagan elaborated on his division of academia into three communities instead of the two — natural sciences, social sciences, and humanities — where each group has its own culture, which is reflected in its vocabulary, techniques, and interests. For instance, in social sciences where the interest is to study the human behaviour, thoughts,

beliefs, and emotions, symbol¹² and culture are as fundamental concepts as mass and energy in physics, atom and molecule in chemistry, gene and cell in biology. (Kagan, 2009, pp. 104-105). Such distinguished interests and vocabulary would eventually lead to distinguished techniques and approaches, which are tilted more towards an analytical approach rather than the natural sciences' empirical or the arts'/humanities rational and interpretive approaches.

Perhaps except for economists, social scientists today have lost much of the credibility and public respect they had during the first sixty years of the twentieth century, when popular opinion in academia thought they were on the verge of explaining crime, personality formation, and mental diseases. According to Kagan: "Social scientists are predominantly interested in predicting and explaining human behaviors and psychological states, often in uncontrollable contexts" (2009, p.4). And when such endeavour, which was held mainly by psychologists, failed to materialize "the next generation became suspicious of, and resistant to, high-flying theory" such as these. (Kagan, 2009, p. 128)

From Kagan's perspective, social sciences have witnessed a decline lately for a variety of reasons actually. As formal empirical disciplines, the social sciences are relatively young, around 137 years old. To put this number into perspective, there was a 300-year gap between the invention of the microscope and the discovery that DNA contained information about inheritance. In other respects, social scientists, unlike naturalists, too often initiate their work by presuming the validity of an a priori notion and then designing experiments to demonstrate its usefulness. In relative practice, they tend to perceive a newly invented term that describes a particular observation as applicable to a wide range of occurrences. Despite their attempts to better understand the human being which is their centre of interest, social scientists failed to develop a variety of effective theories and techniques for accurately measuring human

¹² A symbol is any event – a color, design, spatial location, animal, object, or word – whose physical features bear no relation to the idea it represents. (Kagan, 2009, pp. 104-105)

psychological states and were obliged to depend largely on a person's subjective verbal accounts of his or her psychological states instead. (Kegan, 2009, pp.128-131).

Such polarization in interest, methodology, and vocabulary between the fields of knowledge created another problematic: the issue of the educated elite's overspecialization. Individuals educated and specialized in social sciences and humanities saw human nature as their domain, with no connection or relevance to natural sciences, social behaviour, or policy. Natural scientists, on the other hand, are more concerned with fields of research that have little connection to human affairs, which makes them ill-equipped to engage in such matters in the first place (Wilson, 1999, p. 137). Nevertheless, Wilson believed that "natural and social scientists and humanists alike are animated by a common creative spirit. They are indeed creative siblings, but they lack a common language." (Wilson, 1999, p. 137).

Even though they disagree on the matter of classification of academia, both Kegan and Wilson called for the unification of the great branches of learning and the end of the culture feuds. Wilson called for perceiving the boundaries between the scientific and literary cultures as "broad and mostly unexplored terrain awaiting cooperative entry from both sides." (Wilson, 1999, p. 137).

Since we know, for instance, that practically all human behaviour is transmitted by culture and biology has a significant effect on both its origins and transmission, the remaining question is how biology and culture interact, and more specifically, how they interact across all societies to produce the universal characteristics of human nature (Wilson, 1999, p. 137). As for Kegan, he called for cross-disciplinary cooperation, equality of value between the three fields of knowledge, and an emphasis on ethical principles. (Lowatcharin, 2016, p. 118).

Memetics, approached as a social science, may well be a promising field of study that could offer an answer to both Wilson's and Kegan's call for the unity of knowledge and culture

in cross-disciplinary cooperation where all fields of knowledge are equally valued as a source of truth. Kegan's argument that social sciences are still in an early, unhappy stage of development and lack a consensus on a unifying theoretical perspective and methodology is analogous to what memetics as a field of study is going through today. Still, the absence of a strong unifying theory could prove to be a productive quality for the social sciences. This semi-permissive atmosphere would not necessarily correlate with a fruitless yield; it might even tolerate "a thousand flowers to bloom" (Kagan, 2009, p. 127).

In the name of consistency and in accordance with the spirit of biomimicry which memetics is based upon, an analogy could be drawn between the three cultures and the three main states of matter in nature to demonstrate a synthesis between their points of view and Memetics in order to suggest a sort of a prototype paradigm that Memetics might be based upon.

III.1. Liquefaction of Memetics

Matter is the material substance that constitute our universe and, together with energy, is the fundamental constituent of all objective phenomena. As the Encyclopaedia Britannica authoritatively informs us, matter may exist in a variety of states depending on the temperature and other environmental circumstances. For example, at standard temperatures, gold is a solid, water is a liquid, and nitrogen is a gas, as indicated by various characteristics of Solids retain their form, liquids take on the shape of the container in which they are contained in, and gases completely fill a container.

There are reasons to consider the three states of matter as a fitting metaphor when we aim to grasp the nature of the different fields of culture in academia. The kind of bonding that keeps the solid's atoms together and the structural groupings of the atoms denotes the high stability of solids and their resistance to 'atom separation'. (Bauman, 2006, pp. 1-2). In the

natural sciences, for instance, the strictness and rigidity of the scientific and empirical research is analogous to how solids tend to retain their form. The high level of order exhibited by molecules constituting solids is also echoed on how orderly and accurately procedures, techniques, experiments, and practices are generally conducted in natural sciences.

The remarkable property of gases is their apparent lack of structure. While conventional solids possess a defined size and form, gases lack them both. Because of their chaotic and random movement, molecules that constitute gases tend to be relatively free of any bonds, which ultimately means they will be distributed randomly in space and collide with one another at different speeds. Accordingly, the arts/humanities share this sense of freedom and unrestricted movement. After all, these are studies that rely generally on subjectivity, which would perhaps lead to contradictive outcomes, irrational methods, personal interpretation of data, and free association in investigating an already ever fluid entity, which is the human being.

Liquids, on the other hand, lack both the strong spatial order of solids in spite of their high density and the absence of order of gases despite the relative freedom of movement among their molecules. Hence, liquids cannot easily maintain their form and are constantly ready to transform. Due to the continuous and irreversible displacement of molecules when subjected to shear stress, the liquids flow (Bauman, 2006, p. 1). This property, i.e. the fluidity of liquids, enables them to travel easily, spill, run out, splash, pour over, leak, flood, spray, drip, seep, ooze, and most significantly, “pass around obstacles, dissolve some others, and bore or soak their way through others still.” (Bauman, 2006, p. 2). On account of these characteristics, the liquid state is often referred to simply as the state that occurs between the solid and gaseous states. The same might be said of social sciences, since they use the naturalists' scientific method but not limited by it, whereas their objectives are in the same spectrum as the arts/humanities, which are concerned with the human being, his relationships with himself, his society, and the universe around him. Due to its intermediate position, the social sciences

provide a prominent contribution seen in the correction of a wide range of misunderstandings held by both natural scientists and humanists. The social sciences could be seen as a bridge connecting both sides (Lowatcharin, 2016, p. 118).

Memetics as a sub-branch of Socio-biology fell from grace of the mainstream science in the past few decades in comparison to its rival theory of gene-culture coevolution theory (GCCE). Both theories emerged in the 1970s; both saw culture as evolutionary dynamic and reducible to certain cultural units, particularly memes or cultural variations respectively. However, from their inceptions, the theories demonstrated significant differences in critical areas. The main distinction between the two theories was in their approaches to the notion of "selection units". While memetics believed that culture could be reduced to gene-like units of cultural selection, dubbed "memes," which often assumed to be propagated at the cost of human fitness, GCCE theorists did not deal with discrete units but with cultural characteristics in general. Additionally, GCCE proponents saw human capacity for cultural transmission as an adaptation and focused on the possible adaptive values associated with cultural characteristics (Chvaja, 2020, p. 543).

The fact that there are currently only two well-known scholars who can be identified as memetists (Blackmore; Dennett), coupled with a relative lack of academic production (from 1986 to 2004, only 41 articles used the term "memetics" as an index in the Web of Science database), reveals how much memetics needs new blood to reinvigorate its appeal to the scientific community. After all, science is but another evolutionary arena in which scientific ideas and theories compete for scientific community acceptance and support. (Chvaja, 2020, p. 545)

A theory's historical success is possibly linked and measured to some extent to the number of scientists who work with it and accept it. According to Chvaja, the success of GCCE

and failure of memetics is linked to “the adaptationist perspective that allowed GCCE scholars to formulate testable predictions and hence succeed on the market of scientific theories.” (2020, p. 545)

Although the theoretical foundations of memetics were suitably adaptable to various methods, mainstream memeticists were adamant on decoupling biological and memetic fitness, where memes' survival was not contingent on their bearer's biological fitness. For them, memes may self-propagate, even at the cost of the bearer's reproductive fitness. (Chvaja, 2020, p. 546). Unlike memeticists, GCCE scholars are committed to an adaptationist perspective that is inherent in evolutionary ecology and is immune to the restrictions imposed by replicator-based thinking, allowing for the possibility of bringing together scientists from various disciplines under a single theoretical umbrella and addressing the ensuing empirical challenges. (Chvaja, 2020, p. 560).

Even though it is unclear if the adaptationist paradigm is objectively superior than, say, the "by-product" paradigm in evolutionary sciences (Gould & Lewontin, 1979), the method that allows for more predictions would probably attract more empirical scientists. (Chvaja, 2020, pp. 560-561). Accordingly, memetics ought to embrace the same spirit of broadening the scope of the theory's core to attract more scientists and empirical research from various fields; hence the liquefaction of memetics.

The phrase "liquefaction of memetics" refers to the process by which a material transitions from its solid or gas phase to its liquid phase. It is essentially the process of disentanglement from the constraining commitment to replicator-based thinking, in which biological and memetic fitness are decoupled, and the theory's foundation is built on solely biological definitions and Darwinian evolution. It is the process by which memetics acquire the fluidity necessary to navigate around certain barriers, dissolve, and bore or soak their way

through others. However, one must ensure that the procedure does not result in the theory being fractured, as has previously happened when memeticists from different educational backgrounds disagreed on meme ontology. (Chvaja, 2020, pp. 560-561).

The challenge hereby lies not in the conceptualization of the idea but in its realization. Similar to how a liquid is in need of a container to hold a shape, liquefied memetics would need a vessel where we can base its ontology on. Perhaps breaking away from the limits of definitions in biology through taking both its facts of the models of genes and viruses as an ontological foundation of the study of memes and its transmission processes via a spectrum of sciences that encompass both natural and social disciplines is the answer for bringing about memetics into maturity. It is the process by which cooperation and consensus between these two opposing pillars of knowledge are fostered. Accordingly, Liquid Memetics could be defined and seen as the study of information and culture based on the concept of the “meme” under the umbrella of the Darwinian evolution paradigm and through E.O. Wilson’s Unity of Knowledge theory of Consilience.

III.2. Memetics in Consilience

The world as we understand it today is not a compilation of separated entities, laws, and phenomena because it wouldn’t be explained adequately through the collection of isolated lab experiments. It ought to be understood and explained through the intricate relationships of all these phenomena influencing and being influenced in a recurrent cycle of hardly predictable variables. There should be an attempt to consolidate the already established schism between fields of study as this is not the way how these fields do exist and co-exist in real life. Therefore, “a balanced perspective cannot be acquired by studying disciplines in pieces but through pursuit of the consilience among them.” (Wilson, 1998, p.14)

Wilson's term for the unification of all knowledge, i.e. 'Consilience', was taken from the Victorian philosopher of science William Whewell to mean literally "a 'jumping together' of knowledge by the linking of facts and fact-based theory across disciplines." (Wilson, 1999, p. 8). Wilson's book *Consilience: The Unity of Knowledge* (1998) suggests different methods for the cooperation and coming together of the Sciences and Arts/Humanities that would test and examine levels of knowledge and consequently creating new synthesized knowledge that can be consistent across different domains and fields. The implication of such approach, according to him, is inevitable as it represents the future of mankind in a forthcoming age of synthesis where "the testing of consilience is the greatest of all intellectual challenges." (Wilson, 1999, p. 12).

Wilson believed that the unit of knowledge through consilience, despite the challenges it presents, is of utmost importance not just for all students of academia regardless of their diverse disciplines, but also for every public intellectual and political leader, because it provides "a clear view of the world as it really is, not as seen through the lens of ideologies and religious dogmas or commanded by myopic response to immediate need." (Wilson, 1999, p. 14).

As a potential resolution to the issue we would face in applying Consilience, i.e. Snow's problem of the "Two Cultures", Wilson called for a new approach where Arts, Humanities, and sciences come together "to create a common groundwork of explanation" (Wilson, 1999, p. 8). His particular angle to deal with the issue of sciences and arts is based on applying the latest findings of evolutionary psychology in interpreting and analysing the arts, on the ground that "even the greatest works of art might be understood fundamentally with knowledge of the biologically evolved epigenetic rules that guided them" (Wilson, 1999, p. 233).

For students of the humanities, and of literature in particular, Wilson's Consilience offers a peculiar challenge. The fact that the essence of sciences is based on methodical

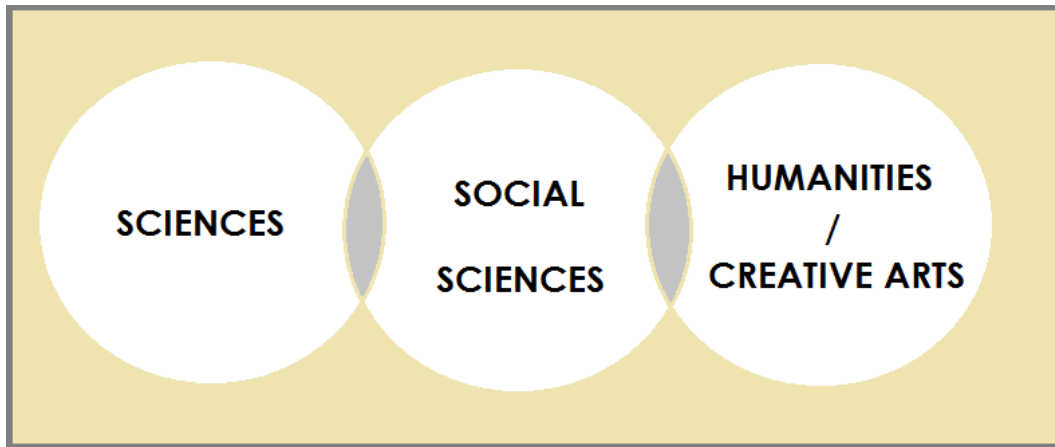
rationality, objectivism, and reducing phenomena to the smallest molecules of its working elements whereas arts are based on mysterious creativity, subjectivity, synthesis, and intuition is what makes any collective endeavour by the two polarized fields seem to be such a sterile feat. However, Wilson believed that science reductionism¹³ does not aim to diminish the integrity of the whole; it aims to understand and associate then synthesize and re-create the original assembly which is the second half of the scientific procedure; for that reason, he saw that “Neither science nor the arts can be complete without combining their separate strengths.” (Boyd, Carroll, & Gottschall, 2010, p. 136)

The alliance between arts and science through reductionism is overdue. Despite the uneasiness consilience would create in fields like comparative literature, it might be the next stepping stone that would empower it to evolve. According to Wilson “Science needs the intuition and metaphorical power of the arts, and the arts need the fresh blood of science” (Wilson, 1999, p. 230) but not in the form of ‘self-conscious hybrids’ of scientific arts or artistic sciences. For a correct exchange between the two fields a “reinvigoration of interpretation with the knowledge of science and its proprietary sense of the future” (Wilson, 1999, p. 230) is required, because “interpretation is the logical channel of consilient explanation between science and the arts.” (Wilson, 1999, p. 230)

Jumping boundaries and implementing various disciplines in interpreting and analysing works of art is not new to comparative literature. However, this has been mainly associated with neighbouring social sciences and humanities. To reinvigorate comparative literature, the scope of interpretation and analysis must be broadened through expanding the circle of the implemented disciplines in order to cope with and make use of the great leaps in natural

¹³ Reductionism is the practice of analysing and describing a complex phenomenon in terms of its simple or fundamental constituents, especially when this is said to provide a sufficient explanation.

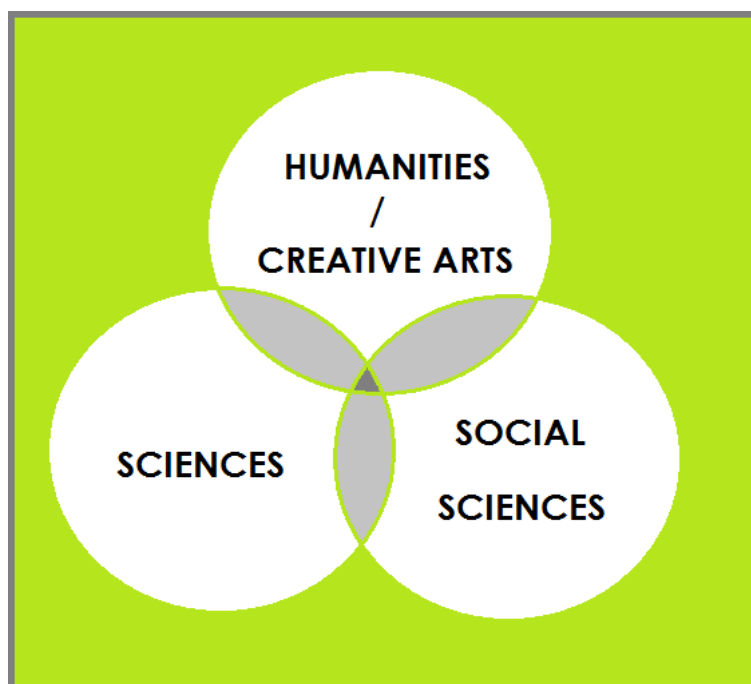
sciences. Through consilience, sciences would meet creative arts/humanities by the way of social sciences. Velikovsky attempted to construct Wilson's idea of the unification of "the great branches of knowledge" in a form of a Venn diagram and arrived to two possible forms:



<http://storyallty.wordpress.com/>

JT Velikovsky 2013

Form -1-



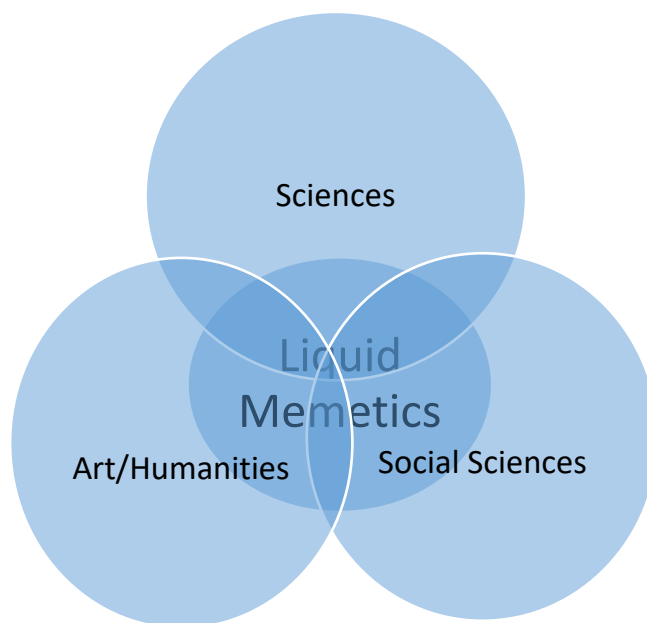
<http://storyallty.wordpress.com/>

JT Velikovsky 2013

Form -2-

The path of knowledge, according to Form -1- , is linear where natural sciences overlap with social sciences and the latter with humanities and creative arts. However, this structure does not express the possibilities of sciences overlapping directly with humanities whereas form -2- does. Its structure expresses the concept of consilience where all branches of knowledge are infused and intermingled together around their boundaries.

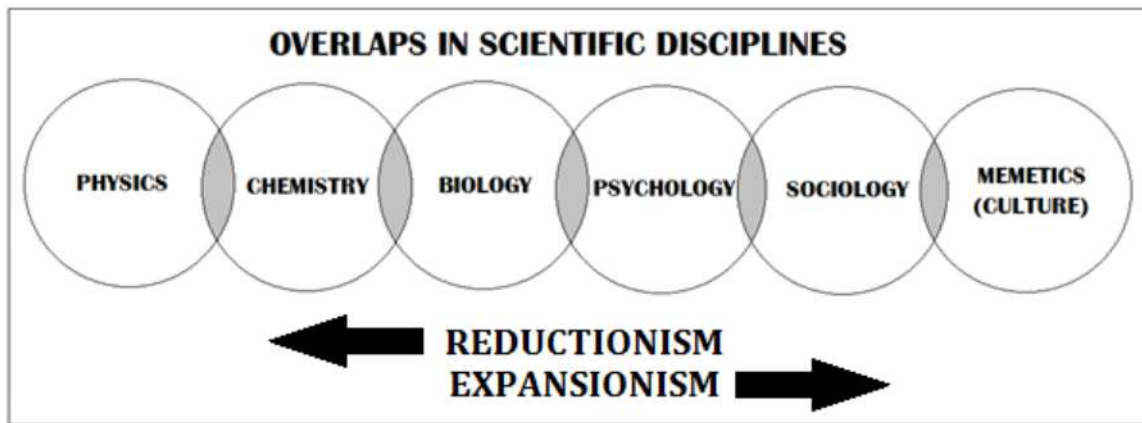
One of the most interesting challenges to the implementation of Consilience is how to make the transition from science to art. One may adopt Velikovsky's Holarchy-Partarchy structure as the missing link that would make the unit of knowledge through consilience a well-oiled machine that would reinvigorate the field of comparative literature. On the basis of form -2-, Liquid Memetics through consilience could be positioned as follows:



Form -3-

Clearly, this framework is still too vague and broad to serve as a pattern to base Liquid Memetics on. Nonetheless, these branches of knowledge can be reduced further. In his book

Why Some Things Are Popular: or - The Meme - The Unit of Culture (2014), Velikovsky perceived memetics as another sub-branch of social sciences as well as an expansion of sociology:

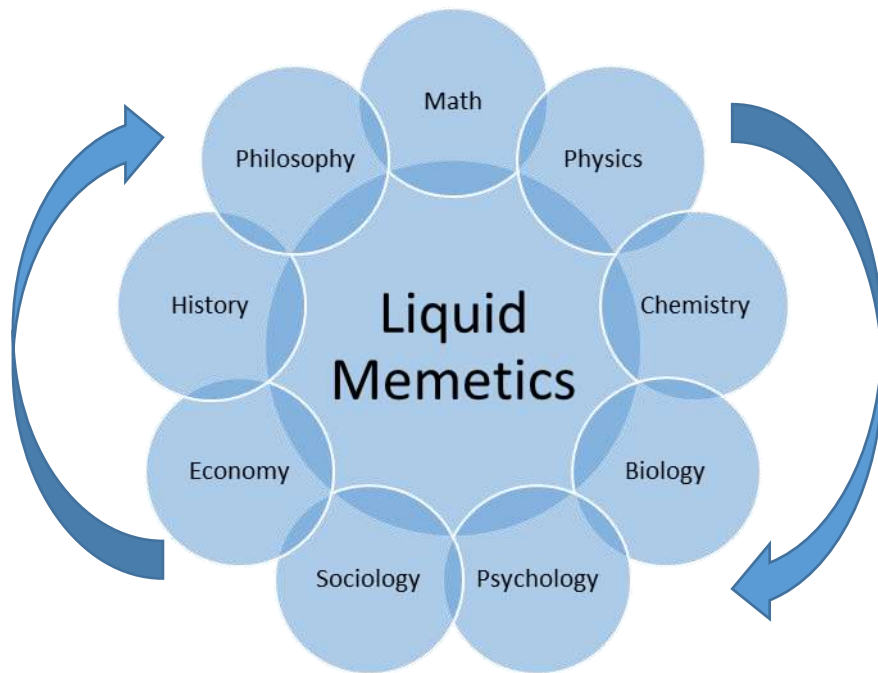


Form -4- (Velikovsky, 2013)

Since both sciences and arts/humanities were inspired by the real world and the fact that laws of physics govern such world, a logical link between the two can be considered in the broad sense. According to Velikovsky, certain laws of physics apply to and support the disciplines on the right in figure - 4 -. Each discipline grows more complex to become a new holon-parton¹⁴ which means that in addition to these common physical laws, it has its own rules, laws of behaviour, and is complex in its own right (2014, p.16). For Liquid Memetics, however, the unity of knowledge is what contains its “fluidity” and gives it its shape. In other words, in addition to these common physical laws, the other disciplines’ rules and behaviour do apply and govern Liquid Memetics in the broad sense. The following diagram is based on the

¹⁴ It is a portmanteau synthesis of the terms holon and parton. A consilient (science and the arts) synthesis of these two terms used herein is ‘holon/parton’ as this term emphasizes the dual or ‘Janus-faced’ (Koestler, 1979, p. 27) nature of these whole/part entities; they are a whole and also a part at the same time in both biological and in socio-cultural systems and also in biological and biocultural units. (<https://www.igi-global.com/chapter/the-holonparton-structure-of-the-meme-or-the-unit-of-culture/184173>)

synthesis between Velikovsky's interpretation of Wilson's Consilience theory and reductionism's hierarchy of sciences:



Form -5-

Perhaps one of the most interesting challenges to the implementation of Consilience is how to make the transition from science to art because, in the first place, each scientific discipline or field has its own laws of behaviour, rules, and methods which makes its complex in its own right. Nevertheless, according to Velikovsky, it is believed that the majority if not all of these fields are governed by the three physical laws of Holarchies. (2014, p.16).

III.2.1. Laws of Holarchies

A holarchy is defined by Arthur Koestler in his book, *The Ghost In The Machine* (1967), as a hierarchy of self-regulating holons (cited in Velikovsky, 2014, p.103) and the holon as

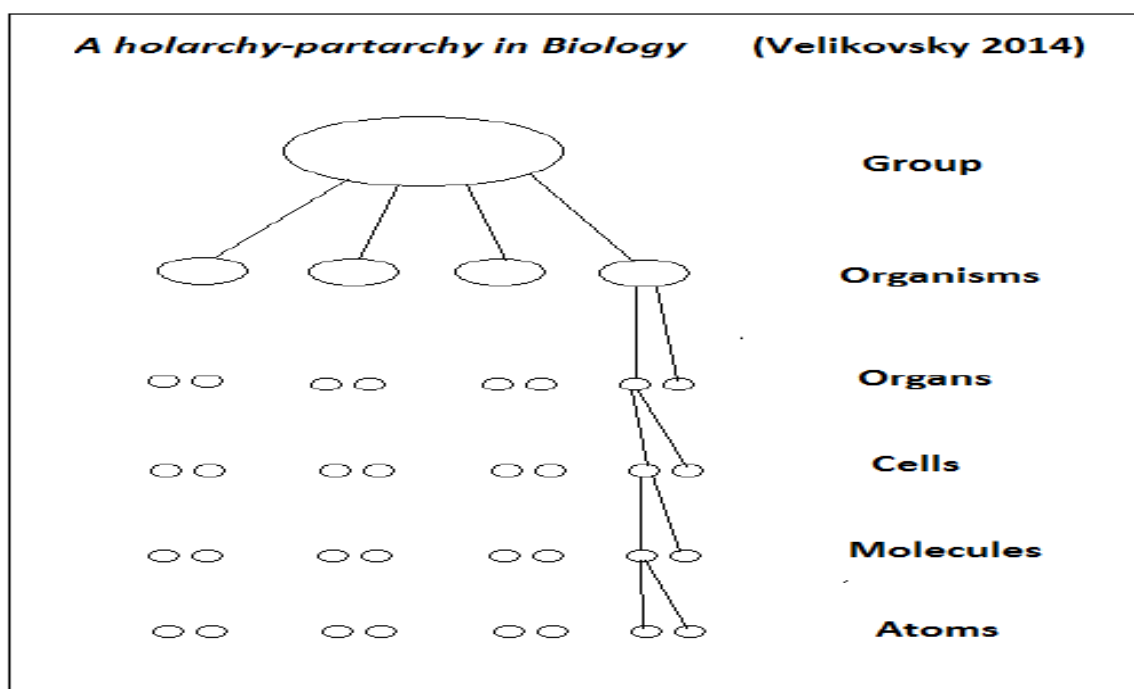
something that is a part and a whole at the same time (p.48). These holarchies are ruled by three laws:

(1) Competition and/or co-operation (and/or, also co-opetition) 'sideways' – with other holons on the same level.

(2) Integration upwards - into the larger holons.

(3) Control and command of smaller holons. (Koestler as cited in Velikovsky, 2014, p.16)

An illustration of the hierarchy of self-regulated holons, and how these laws govern them can be observed in the biology of organic cells:



Form -6- A holarchy-partarchy in Biology.

Biological organisms are whole units in their own right but a part of a larger group (pack, herd, community, etc.) in which they cooperate and compete for the sake of reproduction

and survival; the same can be said about cells that form such organisms and the atoms and molecules that constitute these cells. In similar fashion, each atom (inside a person) is a whole atom, but is also part of a molecule and each organism (for example, a person) is a whole person, but is part of the larger group (where, a group is social holon-parton). (Velikovsky, 2014, pp. 17-18)

Sciences today should be perceived as self-regulating holons that are forming the hierarchy of knowledge despite the great extent of specialization these fields have reached. After all, there are still few universal laws that are applicable across their boundaries like Laws of Holarchies, entropy, and Darwinism.

Liquid memetics, accordingly, can be structured around the same principles of reductionism and holarchies. Consequently, it can be defined as the study of information and culture based on an analogy of Darwinian evolution and through an approach that is based on general principles and laws that are broadly shared between the different disciplines that span the three major fields of knowledge (art/humanities, social sciences, and natural sciences). The previous Venn diagram (form -5-) demonstrates the suggested approach where we can observe that liquid memetics as a field of study can make use of the different areas of knowledge.

A very justified critique could be set forward to the given approach on the ground that such extreme areas of research such as math and physics have little to do with liquid memetics let alone with philosophy and history. A careful examination of this point definitely affirms it, but at the same time sheds the light on the implicit link between them, i.e., life.

Science, philosophy, and art as representatives of their respective divisions of academia have been always centred around life. Humans invent things to make their lives better and easier; they study and philosophize about the universe so they can better sleep at night when they question the purpose of their existence; they create, synthesize, simulate, and exaggerate

the patterns of their lives through art, so they can feel the wide range of emotions which can make us feel ‘alive’. It is true that sciences separate and then reduce phenomena to their smallest elements to better explain them, but in real life such phenomena exist in synergy and unison. Liquid memetics is an interdisciplinary field that attempts to derive inspiration from life where physical, chemical, biological, psychological, social, and economic phenomena are in constant interaction and flux.

Conclusion

The driving force behind literature has always been the spirit of experimentation and innovation. Over time, humanity has continuously sought new ways to express itself through various genres. The 21st century saw the emergence of new literary subgenres influenced by technological advancements and global concerns. Themes such as artificial intelligence, global warming, and genetic engineering became prominent features in works of cyberpunk, post-apocalyptic, and climate fiction, among others. These elements now play a central role in contemporary literature, influencing both the plot and characters. However, there exists a divide between the natural sciences, humanities, and literature, resulting in the marginalization of scientific elements in literary criticism. To address this, it is necessary for literary criticism to incorporate approaches grounded in natural sciences and bridge the gap between these seemingly separate academic fields.

Liquid memetics, as an approach to literary criticism, aims to analyse literature and arts by incorporating natural sciences in similar fashion to Descartes' perception of knowledge as a network of interconnected truths that can ultimately be reduced to mathematics. This approach sees the universe as rational and unified by cause and effect. In contrast to social sciences, liquid

memetics seeks to go beyond and analyse literature and arts in the same way as we study real-life phenomena.

The least that can be said about this proposal is how ambitious it is, and that's definitely true if the requirement to cover all such broad disciplines in depth is counted; however, this proposed approach is more concerned with the universal principles that are implemented by several if not all these disciplines like Darwinism and Entropy rather than with their intricacies. Implementing Liquid Memetics in a very specific topic like what would occur through this research vis a vis revisiting dystopia through the universal principals of Darwinism and Entropy can be productive and in the same time overcome the hurdle of the covering of the broad and deep disciplines.

CHAPTER TWO

Rethinking Dystopia under the Gaze of Liquid

Memetic

Introduction

The 20th century events have left their scars on the psyche of collective humanity. Since the heyday of Utopian literature in the 19th century, writers have turned pessimistic toward the future as their works have been turning bleaker and bleaker ever since. Today, dystopian literature is rising in popularity both in the prose and motion picture fields, especially among young adults. Therefore, it is time for scholars of literature to devote more attention to this genre due to its increasing popularity and influence among today's readers especially the youngsters.

At the same time, comparative literature as an academic field of study needs a new "spirit" or new blood in order to cope with the great plethora of scientific themes that are presented within the dystopian works. Such reinvigoration could be achieved by a rather new way of interpreting literary texts; an interpretation that is interwoven with not only literary theories, history, and biography, but also with social and sooner or later natural sciences. Liquid memetics that is based on Wilson's Unit of Knowledge through Consilience can be one of such approaches.

Through this chapter, we will attempt to revisit and rethink dystopia in reference to the most primal elements of art in human history and also to its counterpart in the western tradition. A new perspective towards its genesis and evolution would be suggested as a humble attempt to demonstrate the potential of liquid memetics at work.

This chapter will also include an edited version of the literary Genome Project conceptualization that would help critics and scholars of literature value, catalogue, and filter the millions and millions of new titles published every single year in a more efficient way. The project is an example of liquid Memetics where arts, humanities, and sciences are in

collaboration to create an application and database that are harnessing the latest top technologies.

IV. Rethinking Dystopia under the Gaze of Liquid Memetics

One can argue that the purpose of arts, including literature, has been always the continuous attempt to express the human condition as faithfully as possible. Nevertheless, the means to deliver such ambition varied greatly through the ages. There are works of art that would provoke a certain mood or another, others would provide knowledge or history lessons, help one's personal growth, and there are others that were created for the sake of posterity. Regardless of all these purposes, the human activity of creating any given form of art has a magical aura to it, and this aura couldn't be more protruding in history as it is today thanks to the make-believe magic of motion pictures and video games.

Art is as old as the early man, and it has been evolving in parallel with us since. According to Wilson, the arts represented magic to them (prehistoric men); a magic they attempted to "...express and control the abundance of the environment, the power of solidarity, and other forces in their lives that mattered most to survival and reproduction [with]." (1998, p. 246).

The twenty-thousand years old Lascaux's Bison cave painting which portrays a gutted bison with a spear penetrating its genitals had incited an interesting interpretation of arts in relation to humans. In the early 1900s, a pioneer explorer and interpreter of European Palaeolithic art under the name of Abbé Breuil believed that this painting could be a hunting magic based on the belief that by recreating animals and killing them in such creations, the group of hunters will be more ready for the real prey when the chase takes place in the wilderness. (Wilson, 1998, pp. 247-248).

The magic hypothesis of animal art is reinforced by other forms of behaviour displayed by extant stone-age people. Their hunters are intensely preoccupied with the lives of the big animals around them, especially mammals that can be killed only by tracking and ambushing. They are less concerned with smaller species, such as hares and porcupines, that can be snared or dug from burrows. They often impute to their large prey the possession of abilities and special powers that project their own fierce human desires. The animals they kill they sometimes propitiate with ceremony. Hunters of many cultures collect skulls, claws, and skins as trophies to memorialize their own prowess. The totemic animals, associated with supernatural qualities and honoured with reverential art, are then used as symbols to bind members of the clan together. Their spirits preside over celebrations of victory and see the people through the dark hours of defeat. They remind each individual of the existence of something greater than himself, something immortal of which he is a part of. The totems enforce moderation in dispute, and they soften dissension within the tribe. They are sources of real cultural power.

It is not surprising to find that among the few well-rendered human beings in Ice Age art are shamans wearing headgear of stag antlers or the head of a bird or lion. It seems logical that gods in the form of animals ruled the ancient civilizations of the Fertile Crescent and Mesoamerica. Such effects of sympathetic magic radiate out. Not just hunter-gatherer bands but also groups and nations at the level of high civilization are prone to adopt animal species as totems to perhaps reflect the qualities they most value in themselves.

American football fans, having at last found a way to form their own Palaeolithic tribes, cheer for the Detroit Lions, Miami Dolphins, Atlanta Falcons, and Chicago Bears when these teams embody the animal spirits of their totemic beasts of their franchises' symbols. (Wilson, 1988, p.249). The same goes for the NBA, but animal totems are not exclusive only to sports; it is also a part of the ideologies of politics of the great nations of today whether it is the elephant and donkey symbolism of the American dominant political parties, or the bald eagle (USA), the

Russian bear (Russia), the giant panda (China), the lion (England) etc. which symbolise the national animals of their correspondent countries.

Even though the magic of animal art is still much around in its raw form, the art in itself evolved greatly to include a plethora of forms of manifestations. Literature today is perhaps one of the most distinguished art manifestations due to its diverse genres and enormous popularity. Dystopia, one of these literary genres that sparked great interest in the last couple of decades, has been generally perceived as a pessimistic reaction to humanity's failure to achieve Utopian existence despite the huge technological breakthroughs of the twentieth century.

Albeit being strongly critiqued by Karl Popper and others, historical materialism has long been used to analyse the dystopian genre where human societies, their organizations, and development through history are based fundamentally on economic, material, and technological conditions. By adding Breuil's interpretation of arts to the mix, a new reading of the dystopian genre can be set forward. What if dystopian literature is not exclusively the historical materialism of a given society. What if these works are not a reaction to our present failures but instead a proactive step? what if it is our own modern Lascaux's Bison painting in which we, consciously or not, are trying to catch that magic that would set us in an advantage point when the next coming chase of the utopian existence takes place through the treacherous wilds of dystopia? What if dystopia in itself is nothing but another microstate of utopia increasingly disordered because of the ever-increasing entropy?

IV.1. Defining Dystopia

The year 2013 witnessed an announcement that caused ripples all over the world. An American whistle-blower by the name of Edward Snowden disclosed publicly what is considered as the biggest governmental top-secret documents leak in world history. He was a hired subcontractor for the National Security Agency where he had access to highly classified

files. Some of the facts disclosed were that various telephone companies provided the N.S.A with their customers' phone records, and that the NSA acquired the power to seek data from firms like Google, Microsoft, Facebook, and Apple. The documents showed that the extent of surveillance went beyond American individuals to include several world leaders and foreign nations as well (Kaleta & Sørensen, 2020, p. 1)

Somewhere in the eastern hemisphere, another superpower is implementing a social credit system that utilizes both advanced technology and more untraditional forms of official records to track and judge each citizen's every move. China is believed to be the first country to impose reputation-based procedures such as blacklisting, rating, and scoring, which were previously utilized by private sector organizations only. If successful, it will have become the "world's first digital dictatorship" by the next few years, with technologies such as mobile apps and a network of 200 million CCTV cameras equipped with facial recognition, body scanning, and geo-tracking constantly monitoring the behaviour of all 1.4 billion citizens, or roughly 20% of the world's population at their disposal. Guiyang's smart city monitoring system was deployed in 2017, and it took seven minutes for security authorities to locate BBC's John Sudworth when he was authorized to test the system (Xiao, 2017). The scope of the surveillance undertaken by the N.S.A in USA and the communist party in China may have come as a shock to the globe; yet, the notion of government surveillance and implementation of control, power, and discipline are not a new trend known to society.

It has been over 70 years since the publication of the highly celebrated classic novel *1984* by English author George Orwell, where these trends of surveillance, power, and control are eerily similar to today's occurrences like Snowden's. Dani Rodrick, a renowned author and economist, does believe that "novelists have a better track record than economists at foretelling the future" (2011, p. 1) and it seems there is no better record than dystopian 'fiction' in this regard.

Mostly, one would imagine that defining dystopia is more of an ordinary task; however, the historical record of literary critics shows how it is challenging to do so as we still lack a clear and precise definition of what a dystopian work of literature actually is. According to The Oxford English Dictionary, a dystopia is “an imaginary place or condition in which everything is as bad as possible” (2023). However, this is a far too broad definition to adequately capture the numerous aspects, such as the variety of scenarios that dystopian authors have created and continue to create. After all, if this were the case with dystopian narratives in which 'everything is as horrible as possible,' there would be no opportunity for narrative development or advancement; everything would be limited to the embodiment of an absolute, and thus unchangingly terrible, world. It is widely believed that literary dictionaries and theoretical books would identify the limitations of such normal dictionary definitions of dystopia to adequately convey what literary dystopias are and how they operate. M. Keith Booker attempts to define dystopia in his book *Dystopian Literature: A Theory and Research Guide* (1994) by asserting the following:

I consider the principal literary strategy of dystopian literature to be defamiliarization: by focusing their critiques of society on imaginatively distant settings, dystopian fictions provide fresh perspectives on problematic social and political practices that might otherwise be taken for granted or considered natural and inevitable (1994, pp. 3-4)

Unfortunately, according to Selma V. Jerkovic and Demir Alihodžić, Booker's perspective, this definition is still too general as it can encompass other genres under it. They state that it is "equally well suited to denoting the science fiction or fantasy genres as it is to explaining dystopian literature." (2016, p. 16). In their book, *The Boundaries of Dystopian Literature* (2016), Jerkovic and Alihodžić did not only examine and critique Booker's perspective of dystopia in literature but many other prominent critics. For instance, they perceive Chris Baldick's definition of dystopia as "a modern term invented as the opposite of *

UTOPIA, and applied to any alarmingly unpleasant imaginary world, usually of the projected future." (2015, p. 74) and Utopia as "an imagined form of ideal or superior (thus usually Communist) human society" to be too simplistic and politically biased (Alihodžić & Jerkovic, 2016, p. 14).

On the other hand, they second Goutlib's critique of Sargent's ambiguous definition and suggestion "that we look at dystopia as a social structure that is worse than the present social system," arguing that such definition is useless since Literary criticism has been influenced by what is referred to as "postmodern critique," which asserts that:

any society functioning at the present time (or possibly at any other time as well) could be regarded as such a 'bad place.' [...] The postmodern critic's overly broad use of the notion of dystopia is counterproductive to a clear definition of what is unique about dystopian thought or dystopian fiction (2001, p. 5).

The definition for dystopia in Roland Schaer's *Utopia: The Search for the Ideal Society in the Western World* (2000) is equally unimpressive in its generalities as it defines a dystopia as "a non-existent society described in considerable detail and normally located in time and space that the author intended a contemporaneous reader to view as considerably worse than the society in which that reader lived." (Schaer, Claeys, & Sargent, 2001, p. 15). The first glaring problem with this definition is that its first qualifier, that a dystopia is "a non-existent society described in considerable detail and normally located in time and space," applies in some degree to every work of fiction; these words do not carry a lot of weight. The second problem is that there are many ways in which a fictitious society can seem "considerably worse" than one's own; the intent here is to argue that a dystopian 'worse' is not only bad, but bad in a very specific way. (pp.15-16)

The best one can get for a definition of ‘dystopia’ in J. A. Cuddon *A Dictionary of Literary Terms and Literary Theory* (2013) is two simple words — “See UTOPIA.” Should one indeed examine J.A. Cuddon’s definition of ‘utopia,’ one finds that dystopias are “almost chiliastic forecasts of the doom awaiting mankind,” (2013, p. 751), but this is only true in some cases.

Many literary dictionaries, in fact, such as Harry Shaw’s *Dictionary of Literary Terms* (1972), Ian Buchanan’s *A Dictionary of Critical Theory* (2010), and Roger Fowler *A Dictionary of Modern Critical Terms* (2018) do not even bother to define, or in the least properly define, what a dystopia is, even though they claim in their introductions to be effective and comprehensive guides to literary terminology. Furthermore, many of the definitions offered by literary dictionaries, just like the aforementioned, are no less insufficient and non-inclusive in terms of genesis, evolution, and the wide range of possibilities dystopian literature is offering us today.

It is odd that such a significant critical term remains, for the most part, insufficiently defined. It is as if ‘dystopia’ is such a familiar term that its meaning is assumed, and no need is felt on the critical front to clearly define it as anything more than a work of literature which portrays a setting where one would not want to live. Incredibly, some critics freely admit to the fact that they see no reason to focus more closely on ensuring that a consensus is reached concerning the actual meaning of this term.

Renata Galtseva and Irina Rodnyanskaya, in their article “*The Obstacle: The Human Being, or the Twentieth Century in the Mirror of Dystopia*” (1991), state that they feel “there is no need to tire readers with attempts to exhaustively define dystopia as a genre;” even though dystopian theory is the subject of their entire article, and they make use of the term ‘dystopia’ with the obvious intent that it should signify something very specific to their readers; they feel

no need to lay this kind of standardizing theoretical groundwork beneath their claims. Books, scholarly articles, and even literary dictionaries become marvellously evasive whenever the time comes for them to grapple with the question of the meaning of dystopia; what they are eventually able to produce, assuming they do not take the easy ‘dystopia = opposite of utopia’ road, can be seen from the above examples to be frequently insufficient. (Alihodžić & Jerkovic, 2016, p. 16)

Come to compare the previous accounts which we can positively describe as acceptable rational definitions of the term albeit their insufficiency, we can come to a conclusion that one perhaps should not place the blame on the critics and rather shift it to the term itself. Dystopia is popularly supposed to be an inverted, mirror, negative version of utopia, and the latter is supposed to be an idealized society or world regarded as superior to the author. The problems commence when we acknowledge that utopianism is not a purely literary tradition and that “utopia” may be defined in a number of other ways.

Indeed, while we may generally concede that the common language definition of utopia describes any variety of “ideal” society, the term itself only becomes historically and analytically interesting when we limit this definition. Clearly just as one person’s freedom fighter is another’s terrorist, one person’s utopia is another’s dystopia. Such perspectivism is what makes it an elusive concept, and because the term is related to the concept of “badness,” it becomes a subjective term whose meaning cannot be agreed upon by two distinct definers; what could be considered as a dystopian fiction for someone, it might be a ‘utopian’ one for another. Hence, an essentialist approach to the matter has proven less productive.

Perhaps revisiting dystopia as a genre of fiction and concept should be done through a different angle; an angle that is more inclusive and thematically friendly to the plethora of constructed dystopian worlds and societies we have today. Adopting liquid memetics as an

approach to the matter would probably enrich such discussion and move it further ahead. This research will attempt to redefine dystopia through the lenses of liquid memetics in terms of its genesis, evolution, and the wide range of possibilities dystopian literature is offering us today.

IV.2. Dystopia: Genesis

The term "dystopia" or dystopian fiction has been defined in a plethora of ways. Whether it is considered as anti, negative, or satirical utopia etc., it still manages to elude such definitions maybe due perhaps to the fact that it is still a relatively new term and genre, or because it is deeply rooted within its 'antithesis' 'utopia'. Fundamentally, these two terms are at the very heart of any understanding of dystopian fiction. The origins, and originally intended meanings, of these words are not difficult to unearth. For instance, humankind had been creating fictions based on social perfection and idealism at least since plato's Republic (Rabkin, 1983, p. VII). Be it Cockaigne's, the land of plenty in medieval myth, Atlantis, the no longer attainable legendary island, El Dorado, the city of gold or other mythical lands that are isolated from the world in time and space not to mention the eschatological visions of Judeo-Christian and monotheistic religions in general, it seems inherent to human nature to dream of a better life and to conceptualize these dreams in model societies set either in a past dreamland or in the future.

Sir Thomas More gave this thread of intellectual history a name when he coined his contribution to it under the derivational neologism of 'Utopia' which is Greek for no-place (Rabkin, 1983, p. VII). Accordingly, a utopia is an ideal, planned society, which has managed to eliminate the shortcomings and unfairness the authors witness in their own times. The name 'utopia' is derived from the Greek eu-topia meaning 'good place' and u-topia which means 'no-place', and therefore describes a place both ideal and fictional (Frommen, 2019, pp. 08-09). Eutopia and Utopia are pronounced in the same way, thus, by creating these two terms, More

succeeded in creating a duality of meaning for the word “Utopia” to both mean the non-place and the good place, so that his work would distance itself away from its initial title “Nusquam¹⁵” leaving room for the possibility of realisation (Bouabdelli, 2017, p. 16).

Altering the title of his work to reflect a more of positive connotation can be attributed to the zeitgeist of his time. Around the 16th and 17th centuries, people generally had a “faith in human progress and in man’s capacity to create a world of justice and peace” (Baldwin, n.d.). As one of the “fundamental features” of what is known as the “Western Thought” which can be traced way back to the Old Testament and Greek and Roman classical thinkers, the concept of a world of justice and peace probably gave inspiration to More’s *Utopia* (1516). Thomas successfully “...combined a most penetrating criticism of his own society, its irrationality and its injustice, with the picture of a society which...had solved most of the human problems which sounded insoluble to his own contemporaries” (Baldwin, n.d.). *Utopia* (1516) illustrated how despite the hardships people faced around that era, they were more optimistic than us, the contemporary generations, about the future of mankind.

Even though the cannon term of “utopia” was created in 1516 by More, the roots of the concept of a perfect place or a paradise is much older. Such ideal place can be found for instance in the Biblical Eden or in the Greek and Roman stories of “...the earthly paradise and the idea of a golden race or age.” (Sargent, 2010, p. 10). While this is certainly a limited and simplistic definition of the genre, it surely serves to give us a basic understanding for the genesis of utopia and therefore its offspring dystopia.

The word dystopia was first used by John Stuart Mill three centuries after More in an 1868 parliamentary speech in which Mill used the word synonymously to “cacotopia”; which

¹⁵. More's used the Latin word ‘nusquam’ as the initial title to his work which is Latin for “no place” or “in no occasion”. Such title would necessarily suggest the impossibility of the realization of such ideal place. (More, 2020, p.115)

is Greek for “bad place”. The essential distinction between the two terms appears at the first glance to be very obvious: the first represents, as did the work that carried it as a title, a positive hypothetical society, while the latter represents a negative hypothetical one. In similar fashion, dystopia for literary critics is predominantly defined in juxtaposition to its antonym and inseparable precursor, utopia.

Recognized as the counterpart of utopia, which is in general a flawlessly structured, imagined community or place, dystopia is often defined simply as a utopia gone wrong. Additionally, the dystopian world is inextricably linked to a totalitarian state system that denies its citizens freedom through severe control over every aspect of their lives. Thus, phrases such as negative or inverted utopia, and anti-utopia, satirical utopia, are frequently employed as interchangeable synonyms, perhaps simplifying the entire situation. However, such binary classification was challenged by one of the pioneers of the dystopian genre.

Within the preface (1946) of one of the seminal works of dystopia *Brave New World* (1932), Huxley kept referring to ‘the bad place’ he created as a utopia basing his categorization on his perspective that any speculative structure that takes us to the future is as such (Gottlieb, 2001, p. 4). This unique categorization did not stand for long as in 1952 J. Max Patrick and others suggested to simply distinguish between the good place as ‘eutopia’ and its opposite, the bad place, as ‘dystopia’ which represents the main stream view. (Gottlieb, 2001, p. 4)

It is quietly reasonable to assume Patrick’s position instead of Huxley’s; Afterall, there are several works which are seen as utopian but not futuristic nor speculative such as Jonathan Swift *Gulliver’s Travels* (1726) and More’s *Utopia* (1516). Nevertheless, Huxley’s position was of great value. Assuming only the first part of his categorization without the time stamp, i.e., perceiving bad places or dystopias as homogenous to utopian structures would perhaps enrich the discussion even further than categorizing them as opposites.

Contemporary critics do agree with Huxley on this matter. According to Fatima Vieira, the editor of *Dystopia(n) Matters: On the Page, on Screen, on Stage (2013)* “there are more affinities binding utopia and dystopia together, with regard to their aims and objectives, than differences setting them apart.” (p. 01). The association between the two was described in this book as if they were correlated in their function, as within each utopia a dystopia lies beneath, and dystopia as the ‘shadow of utopia’, its ‘alter ego’, or perhaps its paradoxical essence rather than its counterpart. (Vieira, 2013, p. 1)

Revisiting *Utopia (1516)* under the gaze of dystopia, for example, shows that More did not portray the perfect place as crime and warfare still very much exist. We observe no concept of money, and gold was a depreciated metal by the utopians used only to pay ransoms to defer invasions and wars. It is a good place by the standards of that time, but with more analytical observation, we can see the dystopia lying beneath waiting to materialize.

If we take into consideration the factor of time and the fact that gold is a very scarce metal in addition to the ceaseless human greed and selfishness that are mixed dangerously with the almost non existing personal freedom (which is considered today as more of a dystopian trait rather than utopian), we can comfortably speculate that such structure is unsustainable in the long run, and such community would fall either because of inner conflicts, external invasions, or both unless other drastic measures would be introduced which would push Utopia towards the dystopian side even further. Acknowledging the assumption that even More’s *Utopia* in itself is but a precursor to dystopia would put us against another problematic question: what is Utopia then?

By going back to the roots of the genre and its early debates, we can assume a position that can provide a solution to this problematic. If we examine the most famous utopian narratives, a pattern of two main strands can be observed here: utopias brought about without

human effort, such as the Biblical heaven and Greek Elysium, and utopias brought about through human effort, such as Plato's Republic and More's Utopia (Schaer, Claeys, & Sargent, 2001, p. 24).

The influence of the pivotal concept of 'the Biblical heaven' in the western tradition and utopian narrative in particular is undeniable which makes it one of the best references to the works that are dubbed utopian especially the ones brought about without Man's effort. Similar to the monotheistic religions, most cultures perceive the latter as synonymous with order, the standard of beauty, goodness, and truth (Zaleski, 2023). The biblical account describes it as a place where everything is made new; a place of perfect eternal peace where "The wolf and the lamb shall feed together, the lion shall eat straw like the ox" (Isaiah, 1998, p. 65:25); a place where the good people of the faith are reborn again without 'sin' in flesh with perfect eternal bodies that are free from "hunger, thirst, pain, deprivation, disease, ignorance, and strife and positively as complete contentment, perfect knowledge, everlasting rest, ineffable peace, communion with God, and rapturous joy." (Zaleski, 2023). Under the glory of God, they shall live in his heavenly city of abundance that knows no night for God himself is the light (The Book of Revelation , pp. 22-27). It seems from these verses that Heaven is the land of no 'mores'; no more sorrow, no more death, no more pain, no more tears, and also no More's utopias and its reproductions either. The simplest way to put it is that heaven is "What no eye has seen, what no ear has heard, and what no human mind has conceived" (1 Corinthians NIV, p. 2:9).

The concept of the Biblical heaven in the western tradition has indeed set the bar so high that 'failure' became an inevitable part of the process of any attempt to create a similar utopia. According to Frederic Jameson, utopia is literally unimaginable the same as heaven is unconceivable in the Holy Bible. For him, our imagination always falls short of utopia not because of our failure of imagination but as "the result of the systemic, cultural and ideological

closure of which we are all in one way or another prisoners” (Jameson, 1982, p. 153). One could beg to defer as most utopias do indeed break away from the cultures and ideologies of their time; in fact, they provide a harsh albeit distant and implicit criticism to the status quo of that era through perhaps imagining a different political system, social structure, and religion.

If Heaven is the promised paradise or utopia we long for, then the Biblical Eden is the paradise lost we long to rebuild but ultimately fail. Despite being perceived as synonymous, Eden is different from heaven because it was created on earth and was humanity’s first home. It is a heavenly place where trees are fruitful and pleasant, where Adam and Eve lived, and where the first and smallest human society would be tested.

If the Biblical Heaven is the key model for the original Western, Judaeo-Christian utopian tradition, then the Garden of Eden could possibly be the key model for today’s dystopian tradition. Unlike heaven, Eden, although being created by God, is a less perfect place where we can still ‘sin,’ where the human condition is still very much in play, and where the two trees that symbolize the human experience as a whole can be found in the very centre of it. The tree of life, which Adam and Eve eat from in order to live eternally, reflects our eternal fixation with existence, death, and immortality; the tree of good and evil¹⁶, on the other hand, represents our haunting quest to categorize the morality in ourselves and the universe around us. Even though it was brought about with divine intervention and not by Man’s effort, Eden could be perceived as the archetype of the second strand of utopian narrative because it was Adam’s and Eve’s responsibility to sustain it. Their fall or expulsion from Eden symbolises their failure of doing so, and in the same time indicates that perhaps the subsequent human life

¹⁶ The fruits of the tree of knowledge of good and evil was the only forbidden fruit in Eden. Unlike heaven, this paradise is a test rather than a reward; In this place the human society made its first choice and first ‘sin’. By eating this fruit, Adam and Eve were cursed to toil and suffer on earth in order to survive only to eventually die at the end as they were also banished from Eden and the tree of life. This is what is known as the original sin that all humanity and universe inherited. (GENESIS 2:10)

till today is in itself ‘dystopian’. After all, dystopia is ‘a utopia gone awry’, and our existence on this earth has been always the case as no matter how ordered, civilized, just, etc. a civilization is, things always go wrong and fall apart in a vicious cyclical pattern.

Accordingly, dystopian genesis as a genre is in fact rooted in both utopia and reality. It should not be seen as the counterpart of utopia nor the dark exaggerated mimicry of our reality. It should be seen as an evolved variation of the former and an extension of the latter. It is ‘utopia gone awry’ but this is how things supposedly turn to be in this universe; from order to disorder. Simply put, it is ‘utopia gone normal’; it is a senile utopia finally showing the symptoms of the universal disease of disorder that plagues us all; it is what the physicists perceive as ‘entropy’.

IV.3. Dystopia: entropically evolved

There is a tradition going back to Greek philosophy of associating the arts with the establishment of order and harmony. The word composition itself literally means ‘to put things in order’. Thus, it seems only logical to assume that there is a link between arts and the act of creating them and the concept of order; that there is a link between arts and the physics’ concept of entropy which is the measurement of disorder within a given system. However, the paradigm in the main stream academia today has intellectuals from the research spheres of the humanities and natural sciences at each other throats as each side claim to understand the world in a better way leading to the emergence of a great chasm separating them which needs to be mended if we are to combine literature with physics or natural sciences with arts in general.

In his 1959 lecture on *The Two Cultures* C.P Snow eloquently summarizes this point when he described how intellectuals react to scientific discourse at a party. He argues that the so-called ‘illiteracy’ of scientists is no worse than the lack of knowledge that said intellectuals have on basic laws of chemistry like the second law of thermodynamics (entropy). He argues that ‘it is the scientific equivalent of asking ‘have you read a work of Shakespeare?’’ (Snow,

1959, p. 8). This is the case in most occasions as fields of natural sciences like physics and biology are getting more and more specialized and detail oriented that the gap between them as fields are getting larger let alone the gap between them and the arts.

What makes entropy a special case, however, is that it can be perceived as a ‘super-concept’ due to the fact that it transcends the boundaries of fields. It can be applied to everything from tiny particles to the dynamics of human interactions; this universality is what could lead to a bridging of the gap between the ‘two cultures’. Since the role of the arts is to represent human actions, emotions, and thought processes then one can safely assume that entropy can be applied to them.

Taking a very simple view at it, the definition of a super concept is that it rises above disciplines. While entropy can be easily applied to some disciplines in the hard sciences, information theory, and in economics, it is considered a bit complicated in applying it to the arts and cultures through their different representations of anthropology, art, film, and history to name a few. Yet, what would make this arduous endeavour worthy is the importance of this concept to culture studies as the prominent anthropologist Levi-Strauss neatly puts it that anthropology should be renamed ‘‘entropology’’ because according to him, the study of man is ‘‘the study of disintegration in highly developed structures’’. (entropology , n.d.)

The concept of entropy originates in the field of Thermodynamics. It is introduced as a state function that depends only on the present state of the system, regardless of which intermediate states the system went through to get to the present one. The Laws of Thermodynamics, which describe the main properties of Energy and Entropy are formulated in the following way:

- (1) Conservation of Energy:** the total energy of an isolated system is constant
- (2) Increase of Entropy:** the entropy of an isolated system does not decrease.

The first law states that (in an isolated system¹⁷) energy cannot be created or destroyed, only transformed from one form to another. The second law states that Entropy measures how much energy degrades towards less and less “usable” forms (Marcolli, 2015, p. 3).

A well-known experiment shows the fundamental concept of entropy in thermodynamics. Consider a container with two separated chambers, one carrying hot water and the other containing cold water. If the divider is removed, the water molecules will ‘mix’ together, and the water’s temperature will eventually settle at a value between that of the hot and cold water. However, even though the opposite scenario appears possible on the microstate¹⁸ level, it is improbable on the macrostate¹⁹ level; A container of lukewarm water with a temperature of 70 degrees will not spontaneously “rearrange” itself so that the water in the right half is 68 degrees and the water in the left half is 72 degrees. (Neeman & Maharshak, 2006, p. 198)

Assessing this experiment in terms of a system’s level of ‘order’ will indicate that in the first experiment, the system changed from a higher to a lower level of order, and in the second hypothetical scenario, the level of ‘order’ shifted from lower to higher. This is the implication of the second law of thermodynamics and the statistical nature of the kinematics of water

¹⁷ An isolated system does not allow either matter or energy to enter or leave. A thermos or cooler is approximately an isolated system.

¹⁸ Microstates are the number of different possible arrangements of molecular position and kinetic energy at a particular thermodynamic state. Any change that results in a higher temperature, more molecules, or a larger volume yields an increase in entropy.

¹⁹ A macrostate is an overview of a complex situation, whereas a microstate describes the details of how each element of the system functions. As an analogy, consider a national presidential election. The macrostates are the various possible winners of the election, and the microstates are the various combinations of ways in which the voters may cast their ballots. Accordingly, many microscopic states of a system can give us one macrostate. The number of distinct microstates giving the same macrostate is called the multiplicity of the macrostate.

(www.sciencedirect.com/topics/engineering/macrostate)

molecules. It asserts that the level of 'disorder', or entropy, in any 'closed system'²⁰ can only rise with time which is the basis for our understanding of the arrow of time direction. (Neeman & Maharshak, 2006, p. 198)

If we take the process of drawing a painting as a system, we can see this still holds true. In its most basic level, the painter starts with a blank canvas (high order) and end up with an abstract painting which symbolises increasing disorder like in the case of “*Action*”²¹ painting, i.e., raising entropy. If you consider *Several Circles* painting by Wassily Kandinsky, Mark Rothko’s *Slow Swirl at the Edge of the Sea*, and Jackson Pollock’s *Convergence*, one can indeed observe the ‘disorder’ nature of these artworks. However, on another level, interestingly one could perceive and observe this very ordered technique by which the artist lays the paint on the canvas and the disordered product. It is even possible to say that these ‘disordered’ artworks have some kind of an ‘order’ to their chaos which we as a species greatly appreciate.

Noticeably, when it comes to art, the action of composing or putting things into order seems not enough; in artworks, on one hand, both order and disorder seems to play an important role in the artistic value process. On the other, the mere act of valuing an artwork induces the need of the observer, another system, to get involved with the painting through the actions of interpretation and free association which means another increase in entropy.

If we can also study Pollock's life as another system, we can notice how disordered it became in his last years because of his marital and drinking problems. The rise of entropy or disorder in his life coincided with him creating his artwork. The surge in Pollock's fame was

²⁰ A closed system does not allow matter to enter or leave, but does allow energy to enter or leave. A covered pot on the stove, for example, is approximately a closed system.

²¹ Action painting, sometimes called "gestural abstraction", is a style of painting in which paint is spontaneously dribbled, splashed or smeared onto the canvas, rather than being carefully applied.

tied to his nearly two-year sobriety from alcohol. During this time, he produced some of his outstanding paintings. In his farmhouse, he created paintings by instinctively circling the canvas and splashing paint upon it, without much thought. (Hussaini, 2002)

In terms of entropy, we can identify the three previously discussed sides (Pollock, painting, and the observer) as open systems²² that are interacting with each other. Boon, Casti, and Taylor attempted to put a figure on the entropic quality of Pollock's artwork, and they came to the conclusion that this quality has risen over time. (Boon, Taylor, & Casti, 2011, p. 277). Since the artwork in place is considered an open system, then according to the second law of thermodynamics, while the entropy within the open system decreases or increases, this is compensated for by an increase or decrease in disorder elsewhere. In his two years of abstinence, pollock was able to create his best works because as an open system, he represented at that period a higher level of order than when he was under influence and facing marital problems (manifestation of disorder) late in his life which coincided according to Boon, Casti, and Taylor with his artwork increasing in entropic quality.

In similar manner, if we look at the process behind writing a novel or indeed making any composition, the same law can be applied which demonstrates the universality of entropy as super-concept. John Freund explains this effect in "*Entropy and Composition*":

When a writer decreases entropy by the act of composing, the compensatory increase is often absorbed in the physical system of the writer or in certain features of composition itself – or both. Just as stress and its behavioural manifestations (e.g pacing up and down, drumming one's fingers, smoking etc.) (Freund, 1980, p. 501).

²² An open system is a system that has external interactions. Such interactions can take the form of information, energy, or material transfers into or out of the system boundary, depending on the discipline which defines the concept.

Freund describes how the author E.B. White struggled to produce as he aged, claiming that even one letter became too much for him. White's prose is distinguished by the delicacy with which he arranges his words; the entropy of the writing process is minimal here. However, it grows elsewhere, particularly in White's lifestyle and mind (Freund, 1980, p. 502). Even though this account explains the great toll composers go through to produce their art, it does not explain how come we tend to appreciate 'disordered' works like pollock's as much as 'highly ordered' works of Michelangelo for instance.

The connection between order and disorder is complex and may be seen in many contexts. When it comes to the value of art, for instance, it is in the way it strikes a balance between the anticipated and the unexpected, the regular and the irregular, and the known and the unknown. This is simply entropy at work in the field of arts. (Neeman & Maharshak, 2006, p.201)

To reach that 'ideal' spot of artistic mastery, both order and disorder have to be implemented in the 'right' way and with the proper balance. A dull and tedious tone is representative of the highest degree of order, yet we have a hard time finding anything to appreciate about it. On the other hand, random noise, which is representative of the highest level of disorder, is not deemed to have any aesthetic merit. The balance between these two vectors, as well as their back-and-forth motion, is what piques our curiosity. It is the unexpected note, the unexpected shift in the topic, the rhythm, or the scale that, although they appear to be out of place at first perception, it drives us to attempt to make sense of it in the unconscious or conscious digestive process of the piece of art that we are experiencing. (Neeman & Maharshak, 2006, p.201)

Artistic enjoyment may be derived from the juxtaposition of order and chaos, most likely because this combination is related with a reduction in levels of tension. When we are presented with an irregularity, or a piece of information that is out of place, our first instinct is

to try to make sense of it. When we are successful in doing so, we experience a sense of pleasure that is related with the tension being reduced. Neeman & Maharshak saw that this is perhaps linked with the evolution of the human mind and its constant search for order and regularity in unpredictable physical world and to look for "pockets" of low entropy as a result of the fact that this boosted the likelihood of survival. After all, living organisms that warranted our survival as a species like many plants and animals in the flora and fauna of our planet are actually these "pockets" of highly regular and ordered organisms with low level of entropy. (2006, p.202)

Since we are wired to look for order and make sense out of chaos, it is only logical to assume that entropy is an integral aspect of our lives and certainly, since the dawn of man, the struggle against entropy through our continuous attempts to achieve higher and higher levels of order is the proof of it. Accordingly, Entropy has been always within the heart of all human activity.

The latter is not new to the production of arts nor its critique either. As one of the latest proponents and implementers of entropy in literature, Thomas Pynchon has braved the unsure waters of entropy despite his continuous growing uncertainty of the concept back then. In his short tale *Entropy* (1960), Pynchon explored this phenomenon for the first time, contrasting an ostensibly "closed," bleak, and unproductive system with an open chaotic one that is alive and active. The "closed" system contains Callisto and Aubade, just like Oedipa in *The Crying of Lot 49* (1966), are characters who attempt to halt the passage of time. They are paranoid characters who, like in the majority of Pynchon's works, pursue a transcendent meaning in a chaotic universe whose energy seems to be waning. Callisto is fixated on heat death and immobilized by the concept of entropy growth (Grmusa, 2017, p. 315).

Whether it is explicitly stated and pursued like in Pynchon's works, or implicitly integrated, consciously or not, in most of the other literary works, entropy is an integral element of literature; after all, it represents the agent of change within the plot and the juxtaposition of

chaos and order in an artistic manner that entice us to make sense of it and hence derive recursive experience, knowledge, and enjoyment.

Even though the focal point of this research is dystopia, Liquid memetics is a broader new perspective where we attempt to widen our outlook by retrofitting literary critique field with these super-concepts that are transcending academic borders like what we have done so far with Entropy and Darwinism. Consequently, it is possible to create somehow personalized decks of super-concepts that can be custom-made for every specific work of art. These decks of super-concepts should be populated by rules, laws, concepts, and paradigms from the field of natural and social sciences in addition of course to the humanities.

As for dystopia, the next order of business after revisiting its genesis is the evolution of the concept, which is likewise based on its counterpart. The Utopian thinking is as ancient as the human species. As long as we had the ability to perceive the notion of the future and simulation, we kept on creating an excess of utopias. Take for instance the example of the twenty-thousand years old Lascaux's Bison cave painting (refer to page 69); as simple as they come, the painting was a utopia through and through because survival was the overarching quest back then, and a successful hunting was the ultimate achievement as it would ensure food security for a long period of time. With the coming about of great civilizations, the ultimate quest has changed drastically. We no longer in need to worry about our basic needs which gave us the opportunity to wonder beyond the triviality of our daily lives and eventually casted its shadow on our utopian thinking. Heaven, Eden, Elysium, Valhalla, Atlantis, republic, utopia, etc. are all ideal places that we long to reach and live in blissfully.

Not until the recent decades this tendency changed to a more grim and pessimistic form dubbed as anti-utopian or dystopia because it depicts these forms of ideal places going bad in a way or another. The historical element of this change in tendency will be covered later on; the focal point here is an observable internal pattern which is recurrent in most of these narratives

albeit their classification. The pattern is based on two folds; First, all these narratives are concerned with establishing the ideal existence of humanity; second, they all, except for heaven and Elysium, arrive ultimately at one point which is destruction and disorder.

The case for dystopias is already self-made, but for the utopian works, the evidence is not as clear. A deep dive into Greek and Norse mythology will entail for example that Atlantis was eventually destroyed by god's wrath for their 'moral bankruptcy', and Valhalla will be destroyed when the giants invade Asgard and kill Odin and his Aesir gods. In spite of the fact that there was no account on things going bad in *Utopia*'s narrative, its demise can be roughly speculated if we go back to the different elements of the narrative like we have done previously.

As outliers, heaven and Elysium are versions of the same archetype that is similar in most cultures of the world as we have mentioned before. It is the promised land, a supernatural existence, and a metaphysical place that is made by divine intervention. *Utopia*, *republic*, *New Atlantis* are ideal Man-made places based on a more realistic physical existence. *Eden* and *Valhalla*, on the other hand, are neither from the first archetype nor the second. They represent a middle ground as they were created by divine intervention but still less perfect because first, they are perishable and second, Man's existence within them is still based on the human condition.

It is important to indicate that the selection of *Eden* as an archetype on the expense of other places such as *Valhalla*, *Republic*, or *Utopia* is based on three folds. First, its direct association with our first archetype 'the Biblical heaven'. Second, it is indisputably highly influential in the western culture today. And third, due to the fact that it represents the smallest model of society failing to sustain its ideal existence.

By contrasting these three utopian tiers, it becomes clear that Man and the "human condition" are central to this concept. The latter encompasses all of the aspects and significant

events that make up the fundamentals of human existence. These aspects and events include birth, learning, emotions, aspirations, and conflicts in addition to the finality of death.

The human condition is another super-concept that is being the focal point in many fields of study because it has been and continues to be pondered and evaluated from many different viewpoints, including those of anthropology, art, biology, history, literature, philosophy, psychology, and religion, to name a few. Apparently, it is also an agent of entropy and change within these narratives. Therefore, the quest for revisiting dystopia goes through repositioning the human condition at the heart of the endeavour.

IV.3.1. The Entropic Human Condition

The phrase "the human condition" is most frequently seen in works of literature that deal with nebulous topics like the search for the meaning of existence or ethical issues which mostly are present in utopian/dystopian works; however, the human condition is not just another element of these narratives but its aspects are the pillars that hold everything together. They are movers of the plot and the action agitators; they are the agents of change that often lead us from a relative utopian existence to a grimmer dystopian one.

Adam and eve's downfall was because of a 'sin'; a sin of disobedience against God's orders. According to the canonical teachings of the Christian faith, the original 'sin', as it is known today, was the reason behind our weak, subject to ignorance, death prone, and inclined to sin human nature (Catechism of the Catholic Church, n.d.). On a global scale, the original sin was associated with phenomena such as genocide, war, brutality, exploitation, and abuse, as well as the "presence and universality of sin in human history" (Original Sin, 2009).

The doctrine of the original sin can be associated with the concept of entropy which is the main agent of change here. It was the devil's envy that led to Adam and eve's fall from

grace. It is also one of the seven deadly sins that, according to Christian faith, humanity is inclined to commit because of the original sin that removed God's grace and original holiness (Catechism of the Catholic Church, n.d.).

The "seven deadly sins,"²³ also known as the "seven capital sins" or "seven cardinal sins" are vices seen as the root cause of other sins and acts of immorality. What is interesting is that they can also be seen as acts that increase entropy within a human being, a society, and even our surrounding environment. Take for example greed, lust, wrath, and envy which are all strong emotions that push people to commit acts that are generally harmful to self, society, and environment. These sins can often lead to murder, exploitation, and destruction which are generally elements that lead to chaos and disorder.

Interestingly, both utopian and dystopian narratives aim to reduce the human condition and its impact on society and environment, albeit perhaps in different manners. On one hand, when examining the utopian fiction's defining traits, a number of recurring themes become apparent. The utopian literature is dominated by the concept of community and the prosperity of a state in which private and public life are intertwined. The pleasure of an individual originates from the happiness of the society or the state; as a result, any personal self-expression that contradicts communal norms is frowned upon. In addition, the pleasure of the state as a whole depends on each person completing his or her job well. There is no competition between the wealthy and the impoverished since everyone in each class is roughly equal. Childbearing functions and education are also governed by communes, which determine how children and

²³ They are: (1) vainglory, also known as pride; (2) greed, also known as covetousness; (3) lust, also known as inordinate or illicit sexual desire; (4) envy; (5) gluttony, which is typically understood to include drunkenness; (6) wrath, also known as anger; and (7) sloth. They were first enumerated by Pope Gregory I (the Great) in the 6th century, and St. Thomas Aquinas elaborated on the seven virtues that correspond to each of these shortcomings are (1) humility, (2) charity, (3) chastity, (4) gratitude, (5) temperance, (6) patience, and (7) diligence. Each of these shortcomings can be cured by practicing these virtues.

people in general can contribute to the improvement of the social commonwealth. Since an individual's output is directly proportional to the wealth of the state as a whole, the state presumably determines people's occupations. Even if the ruling elite exercises some influence over the people, they are expected to do their tasks fairly for the good of the state.

Through compiling all of these utopian state features, it appears that its fundamental objective is to 'care' for its citizens, who will in turn ensure the state's well-being. This reciprocal reliance is emphasized in the utopian society, and the blurring of the lines between individual and societal satisfaction becomes the crucial element of the utopian ideal.

However, all these features can only materialize within a given community if we assume a number of norms and conventions that utopian authors had about human nature back then to be true. Chad Walsh analyses this idea in his book *From Utopia to Nightmare* (1962) and presents several assumptions about the human condition that utopian writers were likely to be influenced by at that time. He argues that, people believed in the inherent goodness of man, who, even if he sometimes behaves irrationally, can nevertheless "be shaped and conditioned to fit happily into whatever society one chooses to create" (p. 71)

Accordingly, if man is morally good or can be easily influenced by the order of civilized society, corruption and injustice are unlikely to arise, and the rulers can be trusted to perform their duties fairly without abusing their power. The majority of the utopian societies rely on the "disciplined," just and reasonable individual who by utopian standards equals "the free individual".

Moreover, utopians did not see the necessity to distinguish between personal and communal happiness because they believed that man is guided by logic and reason and thus will choose to work towards the creation of a better society and disregard his personal ambitions (Walsh, 1962, p. 71).

This idea resonates with Rousseau's concept of the "general will," where an individual person surrenders his personal will to the will of the collective body for the better future and protection of each individual and society as a whole. Even though highly controlled, a utopian world does not oppose freedom: by contrast, "it will lead to 'true freedom,' as individual men and women find their own destiny fulfilled by cooperating freely with the purposes of society" (Walsh, 1962, p. 72).

In the dystopian narrative, on the other hand, these ideal assumptions of the rationality, morality, ethics, and general goodness of the human nature have been abruptly inverted because of the major historical events of the twentieth century like the rapid technological progress of the nineteenth century, and newly changed perception of the human make-up which cultivated the idea that the human being is "mysterious to himself and surely to others, not fully explicable by his milieu . . . and capable of some spontaneous behavior" (Kateb, 1963, p. 146). This shift in perspective was manifested through how dystopian authors dedicate most of their attention towards the individual and his condition instead of the great scheme of things like utopian authors do.

It became conventional to think of dystopia as a mirror reflecting our fear of what might occur if the ideal "planning" of a society going awry because of the relative chaotic and unpredictable nature of 'the human condition', and this is why these societies always attempt to remove it from the equation of power and hierarchical structure but at no avail.

Dystopia has been always there because the human condition is in itself the essence of the 'art' and its forms. The utopias in this case have been always dystopias and what changed is only our perspective towards them. This peculiar perspective regarding this shift can be better explained in terms of entropy.

IV.3.2. The entropic eventuality of Dystopia

Entropically speaking, a society can be identified as an open system that is exchanging matter, energy, and information with its surrounding environment in particular and the universe in general. This societal system is constantly attempting to create and sustain pockets of order and regularity or what is called ‘low entropy’ state.

According to the second law of thermodynamics, entropy is always increasing, and since we are decreasing entropy within this system, the rise of entropy is generally compensated by the increase in the surrounding environment. Take for instance our contemporary human society where we can observe a high level of order and regularity within our metropolitan cities which symbolize a low entropy state. However, we can also observe the enormous amount of increased chaos that we are generating around us in order to reach and sustain that level of low entropy. Pollution, CO₂ emissions, garbage, plastics, and all undegradable waste, global warming, extinction, sea-level rising, etc. are all symptoms of that exchange.

In a similar fashion the biological organisms act also in defiance towards entropy. At every level of organization from molecules and genes to cells and organs and even populations of organisms, life is distinguished by an extraordinarily high degree of structure and assembly; Hence, it would appear that randomness, disorder, chaos, and information loss have no place in the realm of biology. However, because entropy tends to always rise, the reduction in entropy that parallels the development of living organisms must always be accompanied by an increase of entropy in the physical environment that sustains the organism (Udgaonkar, 2001, pp. 61-62)

Due to the immense energy required to initiate and maintain a given biological organism, the physicist Erwin Schrödinger argued that life is an extremely improbable state. Put simply, energy is the ‘vital force’ that maintains life, and because they get their energy from

their environment in the form of food, living creatures are able to maintain their low entropy for long periods of time. They achieve order by disordering the nutrients they consume. Sunlight, for instance, is utilized to build biomolecules by green plants through photosynthesis, and in turn, these plants are consumed by herbivore animals to gain energy which would insure the low entropy state in these organisms. However, when the light was produced in the first place, its production was dependent on a large increase in entropy of the Sun (Udgaonkar, 2001, p. 62).

Entropy can be divided in the context of biological systems into two main phases. The first is characterized by negative entropy where order is actually increasing. This phase starts from the single cell (egg and sperm) and continues as the living creature becomes more and more complex and ordered. But in the second phase that can be directly linked to sickness and aging, the process seems to be reversed to its natural state where entropy actually increases.

Life may be conceived as a "pocket" with a lower entropy level than its surroundings. This pocket would evolve and develop with time till it reaches its lowest level of entropy. From that point on, its entropy continuously grows until it reaches equilibrium with its environment (at death) (Neeman & Maharshak, 2006, p.200). During the process of aging, the balance shifts back toward anarchy and disorder. Death is the thermodynamically preferred condition; it is characterized by a substantial rise in entropy as molecular structure disintegrates into disorder. Despite the fact that humans consume great level of energy to avoid it, death is a thermal state of too a high probability to be evaded which makes it inevitable (Udgaonkar, 2001, p. 62).

The human society seems to be just like another biological organism but just on a larger scale. After all, they are both constituted of biological units, both are pockets of low entropy, and both occur in cycles. The major difference is perhaps evolving around the autonomy of constituting biological units and scale. For instance, our body cells are counted in the tens of

trillions, and yet they are very specialized and conformed which make them extremely efficient. As for the society, it is made of highly creative conscious and individual units who mostly but not always chose to conform to the structure of a given society. Outliers exist in both cases; in the first they are called cancerous cells, and in the second called sociopaths. The efficiency, order, and stability of these two structures are greatly influenced by these outliers.

When it comes to the scale, at first glance, the society would look largely more scalable than a biological organism, but statistics show that the human body hosts, coordinates, and controls tens of trillions of units which is thousands of times more than any given human society could ever achieve in history. However, being conscious and free willed, the human being as a constituting unit is highly difficult to control and conform which means it is harder to scale up, but at the same time it offers a greater potential.

Regardless of scale and constitution, both the human organism and society are attempting to create and sustain order. This struggle against entropy seems to be futile as both of them end in death (literally or figuratively). If we would learn one thing from the cycle of life and civilizations, it would be that entropy is the ultimate agent of change that we need to struggle against to sustain order whether a system is a living organism, a population, or an interstellar entity within our universe. For example, human beings are attempting to fight entropy through slowing down the degradation of information within the cells through isolating themselves from any factors that would accelerate this process like smoking, junk food, overexposure to the sun, harsh environment conditions, etc.

In terms of society, it is only logical to attempt to create an isolated system because it is the only possible way to eliminate the element of entropy and its effects. Perhaps this is why in most utopian and dystopian narratives the society depicted is always in a faraway island like in *Utopia* and *Gulliver Travels* or in a walled separated cities or nations like *Brave New World*

and *The Maze Runner* series. In such system, a given society would not interact with its surroundings which means no exchange of information, energy, nor matter. Unfortunately, in most utopian/dystopian societies, humanity succeeded only to almost create a closed system where no information nor matter can be exchanged, but energy still is.

Under the consideration of law of conservation of energy, the total amount of energy in our universe is constant and can neither be created nor destroyed; it can only be transformed from one form to another or from one system to another, and this is the backbone of life. According to physicists, even the universe is entropically ‘aging’, and one day it will go into a ‘heat death’²⁴ state which means we would no longer be able to harvest or use energy. Thus, we can no longer sustain life and order which would mean that even if we succeed to create the ultimate utopian society, we wouldn’t be able to sustain it as it would require unequivocal amount of an energy that is already been increasingly non-useful due to entropy.

Not for the lack of trying, but actually both physical states of being isolated or closed are unattainable for a social system simply because, on one hand, it is composed of intentional intelligent agents which are unique and individualistic in their own terms; on the other, these agents are ‘open’ biological organisms that need to exchange matter and energy with the surroundings in order to sustain their ‘low entropy’ state. These two factors do add a level of randomness and anarchy to any highly structured social system which might vary from one model to another. It would also ensure the inevitable failure and collapse of all these models

²⁴ Heat death is also known as the big freeze or big chill because the universe is slowly cooling as it expands (NASA.gov). If the universe is an isolated system, then its entropy too must increase with time. Indeed, the implication is that the universe must ultimately suffer a “heat death” as its entropy progressively increases toward a maximum value and all parts come into thermal equilibrium at a uniform temperature. After that point, no further changes involving the conversion of heat into useful work would be possible. In general, the equilibrium state for an isolated system is precisely that state of maximum entropy. (Britanica.com)

which highlights the constant failure of these utopia/dystopian narratives to produce an ultimate model of the human society.

Dystopian authors seem to understand this more than anyone as they depict nightmarish states where humans are conditioned to obey, personal freedom is rejected, and individuality disallowed; where our past as a species either systematically destroyed or distorted for pragmatic reasons; where science and technology are vastly adopted and employed not to enhance the human life, but to uphold the state's surveillance and subjugation of its slave citizens (Hillegas, 1967, p. 111).

Dystopian authors are not grim, traumatized, or pessimistic intellectuals; they are the ones perhaps who understood the human condition element and the futility of the utopian dream as its consequence; they are perhaps the ones who are trying to make the best out of what we realistically have as a species, and their structures are as close as we can to utopian existence. Huxley himself kept referring to *Brave New World* as a utopia. Perhaps General Utopus with his destruction of the isthmus and the monetary system, and Mustapha Mond in addition to the other world controllers with their censorship of history and science are not purely authoritative and despotic but actually visionaries who understood all what is being discussed above and chose to act upon it. Perhaps personal freedom is in itself a great power, and with great power comes great responsibility that according to dystopian authors and their created 'men of vision' like Utopus and Mond, are not quite able to comprehend and appreciate.

In due course, this perspective would move utopia from the concrete world to the state of mind where the utopian existence is in the eye of the beholder rather than a part of the grand narrative. Utopia would become more and more relied upon the cultural background of the individual and would lead perhaps to varied potential structures that are quite different they

would be even contradictory to each other, and hence, going back to the same dilemma of classifying these narratives into utopian and non-utopian.

By considering the genesis of dystopia and the human condition as one of the primary agents of entropy, a conclusion can be derived that Dystopia is a cultural meme and an extension of its 'counterpart' utopia. It is a senile utopia drawing closer to its 'death'. It is not a utopia going awry but actually going normal because this is how things supposed to be due to entropy and its main manifestation within the society, the human condition. Accordingly, dystopia is an entropically evolved form of utopia rather than its counterpart.

IV.4. Memetic Sequencing of Dystopia

Memetically speaking, Utopia is not a mere cultural meme. Its intertwined nature and intricate cultural elements make it a complex structure of memes, a meme complex. Similar to how gene complex functions, the utopian meme complex is a set of memes that produces and reinforces a given unit of cultural transmission or imitation; in this case the concept of ideal and perfect everlasting existence of the human society.

Even though Thomas More coined the term Utopia in 1516, the idea of perfect place is as ancient as the human being. Chronologically speaking however, Plato's Republic is the first recorded utopian proposal, but in terms of idealism and influence, the biblical heaven more prominent than Plato's proposition.

Consider for the sake of argument that heaven as a meme complex is the original utopian idea or concept, and the works we are dealing with in literature today are but variations of it. After More's *Utopia*, we see this meme appear in Jonathan Swift's 1726 novel *Gulliver's Travels* followed by Edward Bellamy's late-nineteenth-century novel *Looking Backward: 2000-1887*. Though this list is far from comprehensive, it plots what we can call a meme-line

which is the equivalent of the germline²⁵ in biology. Due to its existence in an ever-growing pool of memes²⁶, utopia eventually gives rise to a new variation or a mutation, i.e., dystopia. Now the meme-line embodies such works as Yevgeny Zamyatin's *We*, George Orwell's *1984*, Aldous Huxley's *Brave New World* and Ray Bradbury's *Fahrenheit 451* which all possess the same memes of a seemingly perfect and ideal society albeit with different manner and, unlike utopias, with perhaps more grim endings.

Gregory Claeys argued that “many eutopias or ideal societies having dystopic elements and vice versa” (Claeys, *The Cambridge Companion to Utopian Literature*, 2011, p. 108). Utopia and dystopia adequately can be seen to belong to the same the meme-line, and from it we can conclude that utopias are actually but dystopias of a different age and a different variation. Accordingly, a proposal can be added to the genesis of dystopia which states that Utopia is singular (heaven), its versions are all dystopias. In other words, all utopian structures are also dystopias but just in different shades and degrees.

It is important to remember that both types of works, that is if we still categorize them as different from each other, are concerned with establishing the ideal state where members of that given society will not go through the ‘unduly’ suffering and ‘unfairness’ the authors perceived and observed in their respective times. We can state that the ideals and optimal

²⁵ Germline refers to the sex cells (eggs and sperm) that sexually reproducing organisms use to pass on their genomes from one generation to the next (parents to offspring). The meme-line here is the process where authors from different generations read and adopt the memeplex of utopia in their writings. (<https://www.genome.gov/>)

²⁶ Meme pool here is to memes what a gene pool is to genes. The latter refers to the combination of all the genes including their variations (alleles) present in a reproducing population or species. This pool is what ensures the constant mutation and alteration of the species as a whole. A meme pool for utopia represents all the cultural memes that are present in the culture of a given society and associated with the memeplex of utopia. For example, the memes that are associated with technological advancement were introduced in Huxley's *Brave New World* made way to a new completely variation of utopian/dystopian societies. The same can be said about today's new memes and their influence like virtuality, cybernetics, quantum physics, etc.

structures in utopian novels are far from being flawless or completely without any degrees of injustice or exploitation by any means, and to today's generation such structures are even considered reminiscent of dystopian states.

What is problematic, however, is that any form of governance and order, utopian or not, requires political and social stability which can only be achieved under the supposition of individuals relinquishing a portion of their freedom and entrust it to either a person, institution or any given authoritative structure for the greater good of the whole society. Knowing so, a system of checks and balances added to an aware population seem to be, in theory, the keys to reach our Heavenly state or at least the Eden version of it; however, its realisation eluded us so far which begs the question why?

Interestingly enough, the story of Eden alludes to our failure to sustain a utopian existence with even the smallest unit of society and its building block, the family (Adam and Eve), let alone succeeding in rebuilding and sustaining it with a population of millions if not billions which is incredibly much more delicate matter.

More to the point, what we used to regard as ideal structures we strive for are utopias on the surface but can be, if not already are, dystopias in heart especially if you perceive such utopias from the perspective of the individual citizen of these dystopias. Apparently, over the previous decades, authors indeed became more and more inclined towards dystopia through exploring the individual rather than sticking to the macro level of the state like More and others had done previously. On the basis of the fundamental position that we have arrived to beforehand, one can state that dystopia²⁷ as a memeplex has changed drastically since its More's era to the point of being unrecognizable compared to its Eden genesis despite the huge

²⁷ Dystopia here includes all utopian narratives except the biblical heaven plus all narratives that are already categorized as dystopian

technological advancement that provided us with the luxuries of life that were once upon a time exclusive to kings and emperors.

A general consensus between scholars is established around how the twentieth century witnessed a shift from a predominantly 'utopian' to a 'dystopian' outlook. As a genre, utopia came to exist with More's iconic work in 1516 but its climax came around the 17-18th centuries when utopian works were associated with greater social thematic range and scientific optimism. By that time, human reason was gaining ground on the Catholic Church's control.

The Enlightenment, often known as the Age of Reason, ushered in a surge of scientific optimism and instilled faith in Man. Inventions and discoveries, particularly in geology and biology began to inspire hope for a long, prosperous, and healthy tomorrow ultimately adding new memes to the utopian meme-pool. These memes of optimism along with mankind's grand intentions for the future, spawned a new type of utopia called "euchronia," or the excellent place in the future. (Bouabdelli, 2017, p.17)

The prevalent ethos of that period which was the firm belief in Man's capacity to not only to live happily but also to reach human perfection via the application of reason was the main factor behind utopianism moving on from More's *Utopia*, which is a pure production of the Renaissance, to euchronia, a futuristic with a high dose of optimism production of the Age of Reason. The creation of Euchronia was a cultural mutation which included new types of memes that evolved around the possibility of a better future, but also the possibility of a future that is worse than the present. This gloomy aspect of euchronia created the groundwork for the concept of "Utopia gone bad" and, by extension, dystopia. (Bouabdelli, 2017, pp.17-18)

Scholars believe that the next centuries marked the gradual decline of interest in the utopian genre, but in fact it was more of a shift of perspective and emphasis rather than a decline of interest. Thus, as Keith Booker puts it "much of the history of recent utopian thought can be

read as a gradual shift from utopian to dystopian emphases” (Keith, 1994, p. 14). In fact, all utopian works and even the classics like More’s *Utopia* (1516), *The City of the Sun* (1623) by Tommaso Campanella, *New Atlantis* (1626) by Sir Francis Bacon, and *Gulliver’s Travels* (1726) by Jonathan Swift should be or at least could be read as historical dystopian works rather than just utopias.

Lyman Tower Sargent argues that “dystopia has been the dominant form of utopianism since around World War I” and goes on to add that “the twentieth century has quite correctly been called the dystopian century, and the twenty-first century does not look much better” (2013, p. 10)

A trend or a correlation can be perceived here; feasibly against logical thought, it appears that with more advancement and progress mankind makes, the more we incline closer to pessimism over our future as a species. Much of these grim emotions can be associated with the fact that technology not only made our lives easier, it made mass killing and destruction even easier than ever before. These unprecedented events instilled in us, as Gregory Claeys asserts, a “sense of the incapacity of humanity to restrain its newly creative destructive powers” (Claeys & Sargent, 2017, p. 107)

The cultural meme of ‘scientific advancement’ was in general positively depicted until the early 20th century. We believed our future to be filled with flying cars, easy comfortable life, and world peace, but with the coming about of the Two World Wars, humanity was shocked when it witnessed the other dark side of science with the mass killing and destruction it brought.

The two sides of ‘scientific advancement’ are alleles of the same meme of ‘science’ in the meme-pool. Similarly, Modernism, Einstein’s theory of relativity, Darwinism, Nietzschean

philosophy²⁸, and Freudian psychoanalysis created new alleles to the meme of the western human thought. As the old western tradition impulse lost its status, the overly ideal and perfected state in addition to the emphasis of collectivism over the individual became absurd and unattainable today.

Similar to the concept of the survival to the fittest, the great change in the intellectual environment in the modern times led to the rise of attractiveness of dystopian memes on the expense of utopian ones within the meme-pool. Such element is what led the inversed alleles of scientific advancement and western human thought, for example, to proliferate greatly in novels and even in the other narrative mediums today.

The memetic proposition of gene-like alleles looks promising and straightforward; however, unlike in genetics, the memetic alleles are harder to differentiate. Take for instance the meme of religion; there are estimates that state the number of religions exceeds four thousand, yet the overwhelming majority of such religions may be found among only a few of prominent religious groups.

Christianity, Judaism, Islam, Buddhism, and Hinduism are the five largest faiths in the world. In terms of memetics, these are the fittest and most competitive alleles of religion today. The issue with this premise is analogous with the one of the meme. the complexity of the latter as a replicator is inherited to the concept of the alleles. In addition to the matter of delimitation of these difficult, elusive, and abstract concepts, we are faced with another varying element which is the constant dynamic and mutual interaction between these alleles which would

²⁸ Described often as ground breaking concepts, Nietzsche's Will to power and beyond good and evil made enormous impression on modern philosophy. The former describes what Nietzsche may have believed to be the main driving force in humans which is the accumulation and exertion of power in all of its forms rather than survival. The latter refers to the need for moral philosophy to go beyond simplistic black and white moralizing. In a nutshell, in *Beyond Good and Evil* Nietzsche argues that: a) Concepts of good and evil ("morality") are culturally constructed rather than inherently "true"; different cultures develop different moral laws in order maintain social order.

ultimately create even new alleles similar to the case of Judaism, Christianity, Islam, and Zoroastrianism merging into the Baha'i faith (Stockman, 1997)

The deconstruction of the binary relationship between utopia and dystopia is far from the only disputed point of interest in literature today. It can be considered actually as far simpler than most of the issues forwarded by the continuously growing range of literary theories. More than ever, new theoretical criticisms of art and literature are thriving with great diversity during our time, and the literary genres, their sub-genres, and even the canon's shape and membership became the subject of intense inner dispute. Revisiting literature from the angle of liquid memetics could perhaps not only provide us with an alternative structure to classify and categorize dystopian works but perhaps also enrich other literary discussions and move them beyond a dialogue of prominence to one of consolidation by providing a unifying platform that attempt to implement the latest discoveries and technologies in constructing a literary database that is easy to access, manage, and update.

IV.4.1. The Literary Genome Project

As a society modernises, the individual becomes more and more important than the family, the group, and community, and this was felt in the field of literature and its concerning value system. Postmodernity turned its back to the grand narrative and replaced it with localized representations of restricted domains, none of which has a claim to universal truth status. These little narratives are also criticized as being just another form of grand narrative whereas others went even further to consider it 'Eurocentric'. Despite the fact that every critical theory and cultural orientation (new little narratives) provides some insights about literature, the disappearance of the concept of universal truth and value system led to great confusion as many literary groups entered the twenty-first century in a state of ideological ambiguity as a consequence of the resulting bewilderment. (Bartelli & Kane, 2010)

The ongoing conversation nowadays provides space to many interpretations of literature. Interestingly, even though these interpretations do tackle literature relatively in a clear enough and sufficient manner, they do not offer a unified solution to problems like classification, categorization, value, and canon. Representative critics today seem only content with competing for prominence over others rather than form a cohesive perspective on the value system, classification, and literary canon. (Bartelli & Kane, 2010)

In retrospect, there are arguments in favour of various analytical systems, however these kinds of reasons are quickly becoming relics of the past. The concepts of the canon that were dominant in the twentieth century, for instance, fail to account for developments in both technology and literature. One example of the outdated character of arguments about the reformation of the canon is how the emergence of the Internet has altered the manner in which people produce and consume literature. Authors and artists now have access to a wide range of innovative tools and processes made possible by digital technology. These technologies also provide literary critics and academics with new ways to comprehend and investigate works of literature as well as the canon of literary works.

Liquid Memetics can be seen as one of these newly presented critical angles to literature that attempt to offer an analytical system that incorporates the new contemporary variables provided by digital technologies to the authors and critics alike.

The Project's Use-case

After two decades into the new millennium, the estimated number of new titles published worldwide in a given year well exceeds 1,000,000. The number of books in print in Great Britain alone in 2005 which is the latest statistical year available well in excess of 200,000 and more than 300,000 new titles and editions were released during 2010 in the United States. Even though these numbers do not represent the latest statistics, they can provide us with an

idea of how more than ever before in history, the production and consumption of books has reached great proportions. After all, since 1950, the number of books that saw the light have surpassed the total number of books published in all of the prior historical stages combined (Swirski, 1999, p. 5).

As the number of written texts continues to increase at an inflationary pace, the critical faculties of culture and literature are smothered by the towering stacks of books that no one will ever have the opportunity to read. Traditional critical practice has followed an approach developed in an era when books were rare enough to compel individual attention. In an era of mass production of titles by publishing houses let alone the independent authors and digital releases, such approach could use an update to cope up with the new trends of our era. The creation of an inclusive literary database has become a necessity and something of the essence today.

Identifying the constituent parts of a literary work is essential for building a database of literary works and their characteristics. Liquid Memetics could provide a helpful analogy for understanding the deconstruction of each work of literature through juxtaposing these parts to genetic material. Jeffrey Bartelli and Professor Kane named such venture as the literary genome project (2010). While genetics is well known and understood, it is incompatible with the different components of a piece of art which may be better explained by memetics and the self-replicating unit of the meme.

A meme may take the form of anything from a catchphrase to an entire culture's set of values and spread across a society's cultural and psychological milieu in the same way as "fit" genes spread throughout a population. In literature, this phenomenon has the same effect because memes have remarkable longevity as they may travel from person to person through almost any kind of communication. They may also change as they spread or interact with others

of their kind. Additionally, memes, being self-replicating entities, function similarly to genes but outside of a biological context. Thus, they have an important role in cultural transmission and so should have a permanent place in literature.

The would-be created database for the literary project has the potential to streamline and expand upon the kind of investigation that is concerned with categorizing, classifying, and canonising artworks. The mentioned above examples of utopia/dystopia and the complexity of the meme of religion are perhaps over simplified and too limited demonstrations, but they do show the possibility for the meme mutation and the potential it offers to trace and establish memetic lines. It would be possible to see literary movements throughout time and place with the help of a database containing information on millions of works. It would be possible to trace the evolution of memes across cultural and linguistic barriers in order to study the rise and fall of ideas and trends globally. A fresh perspective on the arts and humanities could emerge as an outcome of such research that delves into the ideological and memetic elements of different works of literature (Bartelli & Kane, 2010)

The conceptualization of the project

Having a planned structure for the conceptualization of a project is crucial for ensuring its success because a structured approach helps clarify the goals and objectives of the project, identify the resources required to achieve them, establish realistic timelines, and facilitate effective communication and collaboration among the participating sides in the project. A well-planned structure helps keep the project on track, avoids confusion and miscommunication, and ultimately increases the chances of achieving its desired outcomes.

It is important to note that the suggested structure is not definitive but an initial attempt to jumpstart the project on in an organised manner. It is still only theoretical, and still in need of real time testing to enhance it or redo it all together.

1. Data Collection

The first step would be to gather a comprehensive and diverse set of cultural memes and their associated attributes, such as their origins, meanings, and transformations over time. This data could be collected from a variety of sources, such as historical records, media sources, and online communities.

Initially, the first step that needs to be established here is to pinpoint what a meme represents. To a great extent, memes, which are, after all, self-replicators, perform functions that are similar to those of genes, but outside the context of a biological system. However, unlike genes, identifying a meme can be troublesome because although a meme may be thought of as a distinct unit of information, the word "meme" can also be used to refer to a great number of different memes, case in point religion (see page). In the interest of simplicity, it is easier to conceive the many distinct memes, along with their respective alleles, as cumulatively constituting a memeplex.

The potential for applying memetics to literature are expanded when these self-replicators are conceived of in this broader manner. In consistency with genetics, a memeplex can be identified as a collection of memes that tend to share common ground and transmit together. According to Merriam-Webster Online, a gene complex is “a group of genes of an individual or of a potentially interbreeding group that constitute an interacting functional unit”. On the same note, its memetic equivalent memeplex can be identified as “a group of memes of a singular culture or of potentially multiculture groups that constitute an interacting functional unit”.

Establishing a detailed collection of all the memes present in a literary work is equivalent to cataloguing its DNA. However, the concept of genetic material or the genome, to be more precise, is associated with genetics rather than memetics, and the latter lacks a

corresponding word for the collection of memes that may constitute an individual person or a cultural artifact. Additionally, a gene is a permanent part of a person, yet a meme may be replaced by a more successful meme instantaneously rather than through generations, hence the presence of such a term seems to contradict certain fundamental memetic principles. This difference seems to exclude the notion of a static memetic genome. Although a person or communication medium may include memeplexes, this word cannot be as well used to refer to all of the memes inside a single source. (Bartelli & Kane, 2010)

Similar to how the term “meme” first originated and for the sake of practicality, it is necessary to derive a new term for the equivalent of a memetic genome. In this regard, the term *menome* is more than adequate. It incorporates a phonemic modification for the purpose of pronunciation, while it is unmistakably similar to the core word. Thus, a *menome* symbolizes all of the memes contained inside a single individual or text. (Bartelli & Kane, 2010).

The collection of these *menomes* would represent the database that we would need for the project. Generally, the latter is a collection of information that has been organized for easy access, administration, and modification. Computer databases are often used to hold aggregations of data records or files that include information such as sales transactions, data on customers, financials, and product information. The storing, updating, and retrieval of any and all types of data are the primary functions of databases. They amass information on individuals, locations, or objects. This information is compiled in a single location so that it may be seen and examined in more detail. One way to think of a database is as an easy accessed ordered collection of several types of information.

Referring back to their patent, The Musical Genome project is a database of songs and each song is “described by a set of multiple characteristics, or ‘genes’ . . . that are collected into logical groups called ‘chromosomes.’ The set of chromosomes make up the genome” (Bartelli

& Kane, 2010). To further improve the database's filtering capabilities, links between works might be logically identified in a fashion analogous to the field of genetics.

Creating a database for a poem or a novel can be a daunting endeavour as these works of art tend to be open for wide range of interpretations. Admittedly, literary critics may disagree on whether a work is feminist, socialist, chauvinistic, or perhaps postmodern, but with the use of a conclusive database, these literary discussions would be provided with another tool to use in the decision-making process because the memes of these works would become quantified and ready for their analysis.

Even though a book may include memeplexes for both feminism, socialism, and why not other 'isms' too, the general tendencies of the literary work would identify it more with one of these 'isms' and this is what makes data analysis the next logical step within the process.

2. Data Analysis

Once the data has been collected, the next step would be to analyse it to identify patterns and relationships between different memes, and to track their evolution and spread over time. This could involve using various statistical and machine learning techniques, such as network analysis, clustering algorithms, and natural language processing.

Walking on the footsteps of the Music Genome project and their creator Pandora Radio would lend valuable experience to the establishment of the literary menome project. For instance, entering a band or song name into Pandora's search bar yields results from the Music Genome Project database that have at least a specific proportion of similarities to the entered keywords. Pandora offers songs that are comparable to my search criteria yet distinct enough to test the boundaries of my musical taste since very few songs share all the same qualities. My pandora's musical profile would be additionally fine-tuned through the 'like and dislike' options for the suggested songs. There are a lot of mathematical and algorithmic processes

occurring in the background of Pandora's system that makes it very efficient, and this is what the literary menome project needs.

With literary memetics, there is something to be learned from both what is the same in two or more works of literature and what is different. The memes and elements that hold constant through multiple works allow for the identification of meme-lines in literature over time. A simple example of this is the elements that are constantly apparent in dystopian narratives. Memes like 'scientific advancement', surveillance, censorship, propaganda, authoritarianism, etc. can all be considered as memes in the memetic pool of dystopia. Accordingly, the more dystopian 'traits' or memes that are present within a work the more it would be prone to get categorized as such in a scheme that is based also on the five stars rating system.

Nonetheless, collecting and analysing everything about an individual piece of literature is a hard task for most of us let alone millions and millions of titles more every single year. Bartelli and Kane saw both Projects (the Music Genome and the Literary Genome Project) as philosophically comparable. However, in contrast to the Music Genome Project, the Literary Genome Project goes farther than only analysing the structural components of a piece of music by making use of memetics to decipher the abstract, aesthetic, contextual, and ideological components of a piece of written work which require a level of intelligence and critical thinking that is beyond the capabilities of today's developed algorithms. In an ideal scenario, the project will interact with various other online literary resources. This will not only help to reveal the memetic structures that exist within literature, but it will also improve the end user's access to the literature that they discover as a result of the literary menome project. (2010)

3. Meme Typology

Based on the results of the data analysis, it would then be possible to develop a typology of cultural memes, categorizing them based on their attributes and relationships with other memes. This could involve creating a taxonomy of memes, or using other methods of organizing and grouping the data.

Imagining a concept that would be as useful and fascinating as the literary menome project is simple, but putting together a database and algorithms within a structured topology that is dynamic and effective enough to sustain and empower such project is a completely different challenge. The technology of the Web-based tools like searchable databases completed with a graphic user interface that provide multidimensional renderings of connections between literary works is already here. (2010)

However, different search methods and search parameters need to be devised in order to deliver meaningful answers to each query. This is because the menome of a written work is significantly more complicated than the musical genomes that are being analysed as part of the Music Genome Project. (2010)

Clearly, the process of populating, analysing, and editing the database is going to be much more challenging than Pandora. Because the academic discipline of literary memetics does not currently exist, there is neither widespread experience nor established criteria to guide the extraction of menomes. Since there is little likelihood of this area of study suddenly rising to prominence within the humanities, the literary menome project will probably depend, at least initially, on submissions that are made voluntarily. Individuals from a wide variety of industries and educational backgrounds will be encouraged to contribute their own menomes if the project is designed as an open crowdsourcing system.

The process of determining the many characteristics or memes included inside a work can be interesting and fulfilling; nevertheless, without standards, the results will not be of much

use. In addition, in order to guarantee the reliability of the investigation, a regulatory body for the verification of menomes needs to be established. It's possible that at some point in the future, a collection of academics may get together to discuss the submission process. In all likelihood, the building of the literary genome project, like most innovative projects do, will get off to a sluggish start and 'bug-infested'²⁹ beta version

The process of sequencing novels must be an interdisciplinary approach. One solution could be to use computational methods, such as text analysis and natural language processing techniques like sentiment analysis, theme extraction, and character analysis to understand the structure and content of the novel. This could involve breaking down the novel into smaller units of text, such as sentences or even individual words, and analysing them for patterns and relationships. Additionally, one could use machine learning algorithms to identify recurring patterns and themes within the novel, and to compare it to other works of literature.

An even better solution could be to use a combination of both computational and human-driven methods, such as having literary experts annotate the text and provide insights into its structure and content. This could provide a more nuanced understanding of the novel and allow for a more comprehensive analysis. It's important to note that these methods are not a perfect solution and may still not capture the full complexity of a novel. However, they could provide a useful framework for approaching the analysis of written works and improving our understanding of their structure and content

Another essential point to keep in mind is that the literary genome project is neither a collection of books nor a library; its database is only a collection of menomes and does not really include any of the works themselves. Having said that, the project needs to be designed

²⁹ The term 'bug' refers to mistakes in software or other aspects of a program. These mistakes may produce an error in the form of unexpected results or erratic behaviour.

in such a way that it may connect with other online literary sources. *LibraryThing* and *Google Books* are only two examples of websites that provide materials that may improve the functionality of the literary genome project.

LibraryThing is a social networking website that focuses its attention on its members' own libraries. The website has a database of over than 153 million books and 169 million library-vetted tags (about.proquest.com); nevertheless, many of these books can be copies with different covers or other little differences. (Bartelli & Kane, 2010). Still, *LibraryThing* and other similar websites have demonstrated the existence of crowdsourcing pool made of millions of helpful volunteers willing to begin categorizing the menomes of their own collections.

4. Meme Tracking

An important aspect of the liquid memetics framework for the project would be to track the spread and evolution of cultural memes over time, in order to gain a better understanding of how they change and adapt as they move through cultural communities. This could involve monitoring online and offline communities, as well as tracking changes in the meanings and associations of memes over time.

When the project was introduced for the first time back in 2010, the world was not yet introduced to Blockchain technology. This revolutionary paradigm completely changed the way we perceive data, internet, money, trade, trust, privacy, etc. within the cyberspace. Unfortunately, such technology is until recently stigmatized by many ideological orientations around the world especially including our country and northern African nations. This can be

largely associated with its first use-case 'Bitcoin'³⁰ and the huge cost of energy that can rival the consumption of nations in order to sustain it.

Since the publishing of the Bitcoin white paper in 2008 by an unknown person or group using the alias Satoshi Nakamoto, blockchain technology has seen significant development. Bitcoin was the first cryptocurrency and the first blockchain-based payment system, but the underlying technology, blockchain, has many other potential uses. Since each block in a blockchain has its own identity and data, such as a record of a financial transaction or a copy of a legal contract, it can be used as a decentralized network of trustworthy nodes, which offers safe, transparent peer-to-peer transactions of data and value without the need for a central authority to verify their legitimacy (Ciriello, Thatcher, & Beck, 2018, p. 2)

As suggested by its name, blockchain is a series of blocks. Each block typically comprises transactions and a hash reference that acts as a connection to the next block. Therefore, it is impossible to remove a block or introduce a new one in the midst of a chain, since the hashes would no longer match. Network members generate blocks as they process transactions using the blockchain's client software. Such a participant is referred to as a "node." To attach the compiled block of transactions to blockchain, a node must determine a hash function of the block that fulfils specific mathematical conditions; however, rules for block creation might vary and rely on a particular blockchain's consensus method (Zile & Strazdiņa, 2018, p. 12)

To include a block in a chain, a network consensus must be achieved. It implies that all network members are required to verify its legitimacy. Depending on technical conditions, a block is added to a chain after a certain number of confirmations; nevertheless, it is confirmed

³⁰ Bitcoin (BTC) is a cryptocurrency, a virtual currency designed to act as money and a form of payment outside the control of any one person, group, or entity, thus removing the need for third-party involvement in financial transactions.

by all network nodes until everyone has access to the most recent blockchain structure which makes it a promising model in dealing with record keeping and data management (Zīle & Strazdiņa, 2018, p. 12).

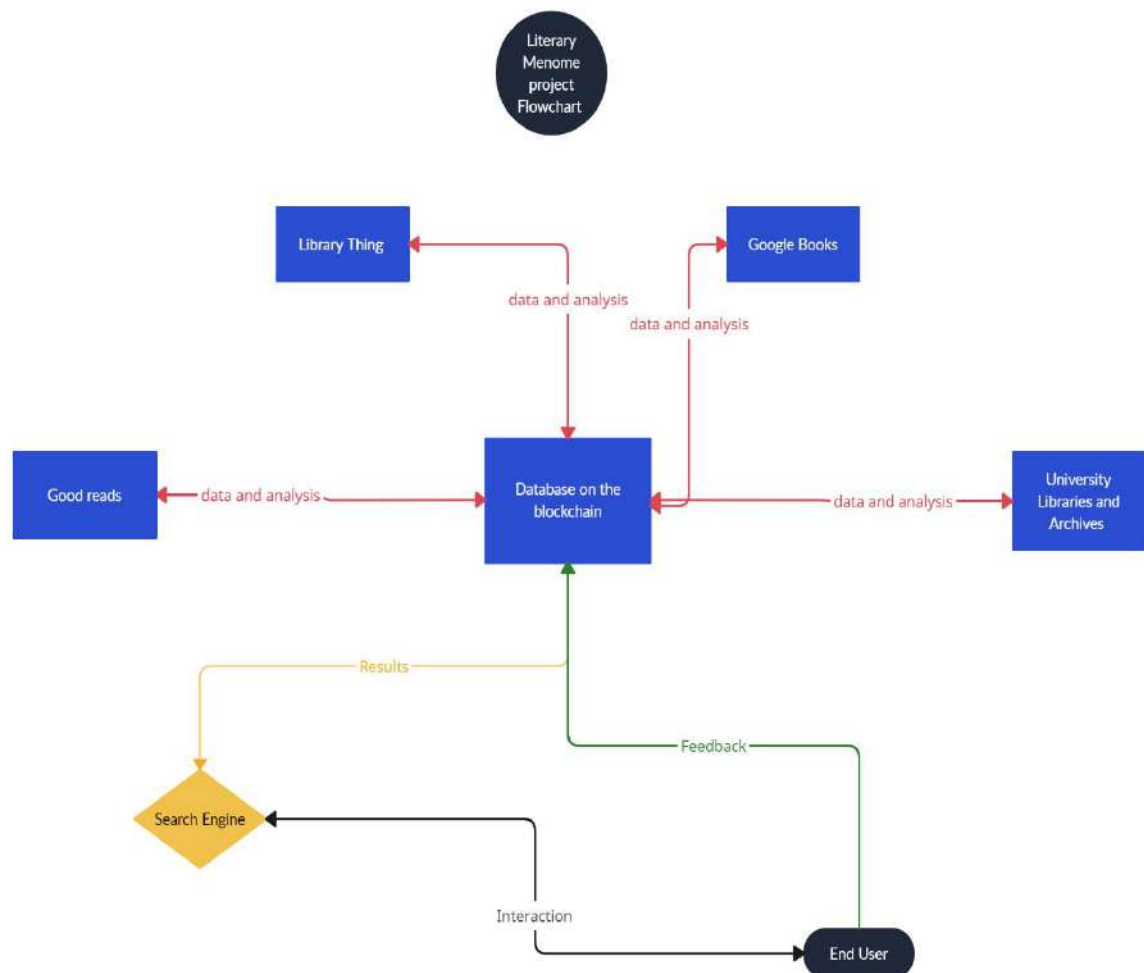
The Literary Genome Project could use blockchain in a specific manner where menomes and memeplexes can be recorded and tracked within the blocks of the ledger. With the consensus protocol of the blockchain, the Project can set specific technical parameters for creating new blocks. It can include, for example, the minimum number of participants to agree on a specific menome of a given literary work to be the threshold for confirmation. In this case, what is defined as “nodes” can be websites like *LibraryThing* or *Google Books*, or any website that is falling into the same criteria of providing literature databases and cataloguing.

These nodes will represent a percentage of the whole Project’s network. Thanks to blockchain, they would be decentralized and surpass the linguistic, ideological, and geographical barriers. If a given menome received confirmation from nodes that represent 51% of the whole network, the latter will be permanently recorded within the newly created block. If for any reason that same menome would be altered or modified in the future, the same process would be followed, but the first version of it wouldn’t be altered. Instead, the newly modified version would be recorded on a new block. These elements of decentralization, immutability, and consensus would allow the project to create and preserve records of literary works’ memelines that can be analysed globally through time and space.

Despite the great revolution blockchain brought to the financial sector, we are still living through the painful time of its early adoption where there are a lot of unrealistic proposals and expectations, and even deliberate scams to trick investors. Nevertheless, similar to the rise of the internet in post dot.com bubble, blockchain is as promising as the world wide web and can

help ventures like the literary menome project to be realized in the coming decade when it would be already regulated and achieved its maturity as a technology.

Finally, the following form represents the suggested structural flowchart of the Literary Menome Project. The suggested associates within the flowchart are recommended due to their big contribution to the field of literature and by no means the list is exclusive to them. By the time the project would grow to its comprehensive form, the list would ultimately include minor associates that represent different cultures, languages, orientations, and even perhaps other mediums.



Conclusion

The dystopian genre has captured the imagination of readers for nearly a century, painting a bleak and often frightening picture of a future society gone wrong. From its origins in early 20th century literature to its current status as a dominant cultural force, the genre has undergone significant evolution and growth away from its original counterpart utopia.

Revisiting the genre and its significance around its 100th anniversary seemed to be the only proper homage for such an important milestone. Since the first dystopian novel publication of “*WE*” in 1921, the genre has witnessed great fluctuations concerning its style, themes, interests, structures, narrative mediums, and prominence in the literary field.

Due to the change of the zeitgeist of the era, dystopia has become the go to genre for young adults lately. Examining this newly found trend showed how the young generation has even begun to categorize old utopian works to be also dystopian in their own way. Approaching this trend under the liquid memetics framework through this chapter has yielded a peculiar position where our understanding of the two genres utopian and dystopian changes. According to the findings, there is only one version of utopia, and it is Heaven; utopia is singular, its

versions are dystopias. Thus, every work that was characterized as utopian should be read also as a dystopian world waiting to happen.

In the same spirit, through this chapter, an attempt has been set forward to use the liquid memetics framework in order to provide an innovative project that would not only help in cataloguing, classifying, sequencing, but also collectively analyzing millions of literary works has been set forward. The project is based on the 2010 literary menome project concept but improved upon with the latest breakthrough in technology which is blockchain. The database of the project would involve many partners like Google Books and Library Thing and contain for example information on the author, publication date, memes, memplexes, and menomes of these literary works. This would provide a valuable resource for scholars, fans, and readers of the genre, enabling a deeper understanding and appreciation of its rich history and cultural significance. Additionally, this project will interact with large number of the published works which would raise the possibility of uncovering hidden gems that perhaps slipped through the cracks unnoticed.

The dystopian genre has a rich history, tracing its origins back to early 20th century literature and evolving into a dominant cultural force in the present day. Its key characteristics or memes have been evolving and branching out especially in the last few decades. The proposed project to create a database to classify dystopian novels will provide valuable resources for scholars and fans of the genre, enabling a deeper understanding and appreciation of its rich history and cultural significance. By revisiting the dystopian genre, we can better understand its evolution, its cultural significance, and its continued relevance in reflecting the anxieties and fears of society.

CHAPTER THREE

Dystopia incarnated: Motion Pictures, Comic Books, and Video Games

Introduction

The dystopian genre has a rich history that traces back to the early 20th century. Today, it has become a dominant cultural force with a quite significant fanbase. As much as its key characteristics or memes have been developing and branching out, its manifestations, or let us say incarnations, are also widespread in the other forms of narration. Each of these forms has its unique style, structure, and storytelling techniques which contributed to tradition of this genre. However, the critical focus has been mostly limited to the novel and rarely deviates anywhere else when we speak about the prose.

These new forms of narration have transformed the way we tell stories and consume media. Each form of narration has its unique strengths and weaknesses. As technology keeps evolving, so these narrative mediums would. We can expect to see even more innovative forms of narration emerge, further pushing the boundaries of storytelling. Therefore, it is time for the critical domain to move beyond the limitations of the novel and delve into the promising mostly uncharted lands of these forms, and through this research, an attempt to highlight the untapped potential of these narratives albeit within a very limited scope of the dystopian genre because an inclusive endeavour is quite beyond the academic boundaries and restrictions of this research.

This chapter will focus mainly on the most prominent of these narrative forms arguing the significance of the dystopian worlds, power structures, and societies that are presented to us through them. First, we begin with Motion pictures like films and series which are extremely popular audio-visual mediums that are created using a combination of sophisticated life-action performances, professional acting, special effects, sound design, and music. Thus, their storytelling is able to convey emotions, atmospheres, and philosophical questions in a way that is both immediate and impactful.

Second, there will be an honourable mention of a relatively new medium that has just recently received some critical attention and acclaim. For so long, comics have been considered literature for children despite the great contributions of this form of storytelling in terms of narrative techniques, characters, and fictional worlds and settings.

Finally, we will delve into perhaps the newest, underrated, and highest in potential medium of videogaming. When it comes to storytelling, gaming is way beyond the aforementioned mediums including the novel because for the first time in the history of literature, the reader, and here the player, is rather an active contributor to the narration process with greater freedom, branching choices, and multiple possible endings.

V. Dystopia incarnated: Motion Pictures, Comic Books, and Video Games

Defining a narrative at first glance seems to be a rudimentary and quite simple task to do. What would occur mostly when you ask people what a narrative is, they come up with the direct and simple answer that it is something we find in novels and short stories, in other words in forms of literature (Farca, 2011, p. 10). However, a thorough dive into the intricacies of narrative reveals the high complexity of the concept. According to Abbott: “We make narratives many times a day, every day of our lives” (cited in Farca, 2011, p.1). For him, the narrative goes beyond the restraints of literature only and its range can be much wider when it comes to inclusivity.

Neumann position is not far from Abbott’s as for him the human being is a “story-telling animal” and each and every story told to a human being by another may be approached as a narrative process (Farca, 2011, p. 8). According Neumann came to the conclusion that:

Interdisciplinary research has shown that narratives are not only a literary form but a fundamental way of organising human experience and knowledge. Narrating appears to

be an anthropological universal device used by humans in all cultures within a broad spectrum of pragmatic and artistic contexts for making sense of the world (Farca, 2011, p. 8).

Marie-Laure Ryan discusses the same idea suggesting a quite similar approach to the matter:

An alternative to the text type approach is to avoid the notions of text and semiotic artifact altogether, and to conceive narrative as a cognitive style or a mode of thinking. In this view, stories can exist in the mind as pure patterns of information, inspired by life experience or created by the imagination, independently of their representation through the signs of a specific medium (cited in Farca, 2011, p.27).

It seems to be that according to Neumann and Ryan, the narrative is bigger than literature and should not be confined by it; for them it is time to decouple the two from each other. Following their definitions, we can associate the narrative with our dreams, memories of our past and our imagination of the future. Neumann put more emphasis on the fact that "films, comics, paintings and computer games have one thing in common – they feature narrative elements, thus telling, showing or evoking meaningful stories" (9). Therefore, narratives can be told or recounted by different forms of media other than textual literature ranging in this case from drama, paintings, comics and films to video games. Literature is already the predominant medium of narration, motion pictures have already proved their huge potential, but in contrast, video games and comics being quite new mediums are perhaps at the very beginning of their storytelling potential (Farca, 2011, pp.10-11).

Dystopia as a genre has become a cultural sensation in the last few decades and is one of the most popular topics to read about, especially among young adults. This genre's substantial popularity is actually not limited to the novel as a narrative medium, but it is

prevalent across other narrative mediums such as motion pictures, graphic novels, comics, and video games in which dystopian themes do account for a significant portion of their most recent productions.

The boundaries between these mediums have already been blurred away as they become interchangeably infused especially when it comes to famous franchises. For instance, franchises like *Harry Potter*, *The Hunger Games*, *Divergent*, *X-Men*, and *The Planet of The Apes* are no longer constrained by the rules of a given genre. For a full experience of the narrative, a novel is no longer a sufficient medium for the contemporary reader. Literature is becoming more and more of a bundle deal where the narrative does break the boundaries and criss-cross among the different contemporary mediums and platforms.

What is problematic about this idea is that the novel generally enjoys a predominant status in which the other platforms are being partially or entirely disregarded as serious narrative tools. Yet, this is not a call for the deposition of the novel but a call for giving the other tools the recognition they deserve. After all, we used to consider novels in the past as the most familiar narrative tool that we are exposed to, but now we are spending much more time streaming movies and series in addition to playing games rather than reading books in general, let alone for personal pleasure and not for assignments.

According to Pariona, India is the leading country in time spent in reading per week with a 10:42 hours where we can find USA and the UK in the middle of the pack with 5:42 and 5:18 respectively (Pariona, 2017). On the other hand, India also leads in the streaming department using the major platforms like Amazon Video Prime and Netflix with 5:16 hours per day; that is a significant 36:52 hours per week (IANS, 2020). As for USA and UK, people spend 3:15 hours per day or 22:45 hours per week on Netflix alone (COOK, 2023) and 1:05 hours per day or 7:35 per week on both Netflix and Amazon Prime respectively (Wakefield,

2021). Evidently, motion pictures are here to stay, and it is time we take it as a serious widely popular narrative platform that is already walking on the footsteps of the novel.

Video games came about around the mid-20th century and been growing ever since. With the advancement of technology and ever-growing resources available to game designers, video games have advanced exponentially in the last couple of decades to reach movie-like productions in terms of realism and artistic mastery. The average gamer is no longer the child nor predominantly male. As one of the biggest video games markets in the world, USA perhaps embodies the coming global trend to the gaming population that is estimated globally to be more than 2.5 billion gamers (1 out of every 3 living human beings). There are around 215 million gamers cross all ages in USA; the average gamer in the US is a 35 years old man, or a 37 years woman (41% of US gamers are in fact women) who owns a house and has children (Essential Facts About the Video Game Industry, 2022). Adding to the fact that gaming today grew into one of the most popular entertaining pass time activities for individuals, friends, and families alike, these interactive games are becoming the alternative source for the strong emotions, recursive experiences, and philosophical concepts exploration that we used to seek within the novel.

Main stream literary criticism, to some extent, has not risen to the occasion and perhaps deliberately disregarded these mediums despite the great popularity and strides they achieved in the past couple of decades. Revisiting Dystopia as a genre through only the lenses of the novel is similar to the parable of asking a blind man to describe an elephant³¹. It can be argued that such strong opinion of literary criticism has held back what is probably a multifaced exploration of this fascinating contemporary literary movement and genre. Perhaps with the

³¹ It's the story of a group of blind men who have never encountered an elephant before and they are trying to imagine one by touching it. Each blind man perceives a distinct part of the elephant's body, but only one, such as its side or tusk. They then describe the elephant using their little experience, and their descriptions vary considerably.

great technological leaps both these mediums have witnessed in the last decade, they deserve more attention or the least the chance for a re-evaluation.

V.1. Motion pictures

Failed dreams and nightmares embodied in forms of grim dystopias have been eerily captivating authors and their audience over the past century. Due to its enormous popularity, dystopia as a genre has even crossed over other mediums of narrative like the big screen. Similar to the other film subgenres, the dystopian film today has evolved significantly in terms of technology, philosophy, and aesthetics. Dystopia in general has also known great diversity as it garners influence and characteristics from sci-fi, film noir, post-apocalyptic, superhero, horror, war, and even western film styles.

Despite its relative early emergence through the medium of motion pictures, dystopian films did not attract much attention until the past few decades. Films like *Metropolis* (1927) and *Things to Come* (1936) are examples of the early rare overlooked dystopian works. It was not until the era after “film noir” (French for “dark film”) that sci-fi films in general and speculative dystopia took on more serious attention. Early dystopian films, similar to film noir, portrayed the loss of innocence in the United States during World War II. The potential extreme forms that a variety of political concerns, such as racial intolerance, communism, authoritarianism, and socialism, which thought to take place in the future back then were also portrayed in dystopian films.

Many popular novels from the last decade have been adapted into blockbuster films by major Hollywood companies. It's only natural that, given the films' widespread acclaim, people would want to seek out the source material. The first and most famous adaptations of the decade, the series of J.K. Rowling's Harry Potter novels and J.R.R. Tolkien's *The Lord of the Rings*

trilogy, sparked a renewed interest in reading, as did the twilight series which climbed up the New York Times Best Seller list to reach the fifth spot just one month after the movie premiered. (Samson & Junnina, 2014)

C. S. Peirce, a prominent American philosopher, introduced the words “sign” and “icon” to describe the connection that exists between two objects when one item represents the other (Montgomery, 1992, p. 193). The term "sign" refers to the association that is arbitrary between two objects. For instance, the word "flower" may be a sign of a flower. On the other hand, an image of a flower can be an icon of the flower, which displays a link that is somewhat less arbitrary between the two. It should go without saying that an image of a flower is considerably more accurate representation of a flower than the term itself.

Motion pictures are made up of icons, while writing is made up of signs but both are considered to be representational media. The visuals in the movie, however, have a more immediate and direct connection to the events that are being described, but the dialogue only rarely does. In addition to this, the sound design in the movie has the potential to significantly improve the audience's comprehension and immersion. It is true that motion pictures' grasp of reality might seem to be far more direct and straightforwardly understandable, however, it perhaps fails to describe something that is abstract, more specifically, the inner world that people live in.

Despite the great success of *Lord of The Rings* trilogy and *Harry potter* movies in incarnating extraordinary worlds full of magical and highly imaginative creatures ranging from fiery dragons to pointy ears elves to talking trees, motion pictures industry came short to its goal of blurring the boundaries between the real and unreal because special effects were still not, to some extent, on the level of the required ‘realness’ to the human mind back then. Two decades later, we can confidently claim that the industry can render faithfully anything an author can think of or imagine regardless of how an abstract, beyond real, and bizarre the notion

is thanks to the great development in cinematography and the special effects field particularly the Computer-Generated Imagery (CGI). Due to this technology, motion pictures have reached a peculiar level identified and associated with the “hyperreal” by Jean Baudrillard.

The notion of hyperreality revolves around consciousness's incapacity to discern reality from a simulation of reality. This is especially noticeable in technologically sophisticated societies today. It is defined as a state in which reality and fiction are seamlessly fused together, with no apparent demarcation between where one stops and the other starts. It enables the combination of physical reality, virtual reality (VR), or augmented reality (AR), as well as human intellect and artificial intelligence (AI). (Terashima & Tiffin, 2002, p. 4)

Though the idea of hyperreality has been around for a while, its implications are more significant now than they were when it was initially conceived. This is because it so accurately depicts the postmodern condition of our time, including how individuals in the postmodern society seek stimulation by creating artificial worlds of spectacle and seduction. Hyperreality in Baudrillard's work is inextricably tied to his notion of the simulacrum, which he describes as anything which substitutes representations for reality. As Baudrillard points out, in today's environment, it is impossible to tell what is real and what is not since everything seems so fake (Felluga, 2002). His contentious claim that "The Gulf war did not take place" in his 1991 book under the same title revolves around this context, emphasizing the media's role in shaping the public's perception of the conflict.

According to Baudrillard, the Gulf Conflict was an atrocity dressed up as a war. Using superior air power, the United States military avoided most ground warfare with the Iraqi army, sustaining very few casualties in the process. The war later on came to be known as ‘Nintendo War’ or video game war because for the first time in history, the whole planet saw the United States-led United Nations coalition go to war to expel Iraq from Kuwait on live television (Desert Storm: Remembering a forgotten war, 2011). The phrase ‘war is just like a game’ was

popularized during this war due to the use of high-tech precision guided missiles and unmanned weaponry (Thomson, 2008, p. 54).

The perception of war as a game demonstrates how we generally are easily impressionable especially when the concerned issue is distant and unpersonal. The failure to appreciate how devastating and deadly a war is showing the great extent media and any production of reality has on our beliefs, contentions, and assertions. If people are not taking something as drastic as war seriously, it can suggest that they are not critically evaluating the information they receive and are easily swayed by sensational headlines, narratives, and dramatic portrayals in the media and motion pictures. This susceptibility is what makes motion pictures and its influence a vital area of research. After all, the novel is losing its status as the predominant influential medium narration to these new forms of narrative.

Dystopian narratives are mirrors that reflect the anxieties and fears of a given time, and they offer valuable insights into the cultural, political, and social issues of the world in which we live. Through a critical examination of dystopian works, we can gain a deeper understanding of the power dynamics, inequalities, and conflicts that exist in our society. This understanding can help us to recognize and address the root causes of these issues, and to imagine alternative futures in which these problems are resolved.

While novels have long been considered a primary source of artistic and cultural expression, it is important to recognize that motion pictures and video games as also significant forms of cultural productions that are every bit substantial as the novel. In this regard, dystopian films and video games offer unique perspectives and experiences that are not perhaps always available within the novel, and they are becoming more and more relevant in today's rapidly changing world. These mediums have the ability to reach a wider and more diverse audience, and they can be incredibly impactful in terms of influencing public opinion, shaping cultural attitudes, and even inspiring political action as we are going to demonstrate further on. The

interactive nature of video games and the audio-visual aspects of films can provide a deeper and more immersive experience than novels alone can provide.

V.1.1. The Matrix Trilogy: Welcome to The Desert of The Real

Often dubbed as the "High Priest of Postmodernism," Baudrillard has quickly emerged as a major new voice in cultural and social critique as he has been shown to have a significant influence on postmodern thinkers as well as artists with his impact being felt in works ranging from Fredric Jameson's *Postmodernism* (1989) to the Wachowski brothers' *The Matrix trilogy* (1999-2003). Similar to Jameson, Baudrillard offers a pretty grim and dystopic image of our contemporary postmodern existence. He argues that we have lost touch with the "real" in a variety of ways, and that we have nothing left except a constant obsession with its disappearance. When reading Baudrillard's work on postmodernism, a feeling and an impression sometimes begets us that we have already lost, and that all he is doing is pointing out the different ways in which consumer society and the simulacrum have triumphed in their colonization of all "reality." (Felluga, 2002).

Whether you are interested in postmodernism, Baudrillard, literature, dystopia, utopia, virtual reality, artificial intelligence, or in philosophy in general, *The Matrix* (1999) has become a must since its release. The movie has received high acclaim not merely for its commercial success but also for its significance for the wide range of academic disciplines of study including literature, philosophy, and sociology that are interested in postmodernism and dystopia.

Written and directed by the Wachowskis, the movie was an instant blockbuster known for pushing the envelope in production budget, sound and visual effects, style and costumes, hyper violence, action sequences, and cinematography. The movie has risen to iconic status today and became recognized as one of the greatest science fiction movies of all time. After

being deemed in 2012 as "culturally, historically, and aesthetically significant" by the Library of Congress, this movie was chosen for preservation in the United States National Film Registry (King, 2012). Yet, what is really significant about the Matrix as a movie and a corpse for this research is also its plethora of themes and philosophies imbedded within which would enrich our academic contentions about dystopia.

The work as a memeplex and a cultural artifact is as postmodern and dystopian as they come, and perhaps one of the most iconic narratives despite its underprivileged status of being just a 'movie'. The Wachowski siblings, were known for their serious approach to filmmaking, and their dedication to creating a thought-provoking and intellectually challenging work and their seriousness indeed rubbed off their creation. One example of this is their request that the cast read and understand Jean Baudrillard's book, *Simulacra and Simulation* (1989). This book was a major influence on the Wachowskis and helped shape the philosophical underpinnings of the film (Rothstein, 2003)

Due to the fact that so much of Jean's writings were about pop culture and the main stream media, an iconic Hollywood blockbuster that directly engages with his work and in the same play with notion of dystopia/utopia classification would offer a rare and extremely useful object of analysis; however, Baudrillard, whether surprisingly or not, forcefully distanced himself from the movie harshly criticizing it for its approach to his philosophical problematics saying that it has nothing to do with his works. Not only that, he was later invited to work on the movie sequels but declined. He offered a very interesting critic when he described the movie as far as the kind of film the evil Matrix program would make about the Matrix (Laist, 2011, p. 1).

Regardless of his position towards the movie, the Wachowski sisters did not hastate and wait for long to pay homage to Baudrillard; in an early scene where the lead character 'Neo' (Keanu Reeves) gets a visit from his friend Choi to buy some hacking software: "He [Neo]

closes the door. On the floor near his bed is a book, Baudrillard's *Simulacra and Simulations*. The book has been hollowed out and inside are several computer disks. He takes one, sticks the money in the book and drops it on the floor (Wachowski, 1998, p. 10).

On one level, it's easy to see why he was included: it is only normal that producers of an action movie with a big budget whose main theme is a simulated reality of our whole world would do a name-check for the cognoscenti of simulation. The decision to include Baudrillard early and often suggests that it is more than just a tease for the audience to stimulate them. *The Matrix* serves as an effective illustration of many aspects of his media theory, explicitly linking them to developments in new media technologies and their possible future path. The movie goes beyond pure illustrative purpose as it dives deep into the epistemological implications of developments in the simulation of experience and consciousness. It provides a crucial stage for discussing recent innovation in VR/Sim, cinema, and technology (Merrin, 2003, p. 1).

The storyline of *The Matrix* recounts the life of Thomas Anderson, portrayed by Keanu Reeves, who is a program writer for a reputable software business by day, but at night he is a computer hacker who goes by the nickname "Neo". Our protagonist shows deep obsession of identifying a fellow legendary hacker known only as 'Morpheus' (Laurence Fishburne) and the truth behind the code-name 'Matrix'. It would seem that the obsession was mutual when he was contacted by "Trinity" (Carrie-Anne Moss), another infamous hacker, who, together with Morpheus, has been attempting to locate him for some time. After being introduced to Morpheus and accepting the opportunity to discover "the truth" about the matrix, Neo finds out that the entire world he has lived within is but a simulation, and that he is actually in an embryonic sac connected to an incubation pod in a relative futuristic world where machines have evolved beyond our ability to control them. Entropy once again is prominently present as humanity is now enslaved by them and is used as a source of energy to feed off. These machines

keep humanity unconscious of this by connecting their brains to a giant, virtual reality, a "neural interactive simulation that we call 'the Matrix'" (Wachowski, 1998, p.39)

The world Neo lived in was nothing more than an illusion created by virtual reality; Morpheus informs him that the current year is unknown but it is much closer to 2199 than it is to 1999 which is the year in the Matrix. He is also told that They have been hacking into the matrix for decades to locate "the one," a prophesied saviour whose ability to internally manipulate this computer matrix will lead to the liberation of humans from their servitude to the machines. The remainder of the narrative focuses on the guerrilla resistance of Morpheus's group spearheaded by their chosen one "Neo". The group lived in a submarine within the sewers of the old world of humanity constantly moving to avoid detection while hacking into the matrix cybernetically.

Whether on page or on the screen, the central topics that have kept recurring in dystopian literature include:

Mind control, the repression of emotions and imagination, sublimation of individuality in a larger social unit, and the existence of a non-conformist revolt group, including the alienated protagonist whose sufferings highlight the impossibility of human existence within the framework of the total state (Czigányik, 2016, p. 34).

Czigányik appears to be the exact description of the Matrix narrative. Dystopia in general and The Matrix in particular seems to revolve around the exploration of the limits of humanity under the context of extreme oppression imposed by a social construct that often claims to be beneficial.

By the first few scenes, some of these themes are already present especially the aspect of mind control as it is so prevalent the audience themselves is being manipulated. Starting with the first scene where we can see a screen full of walls of green neon constantly changing

numbers listening to a dialogue between two individuals speaking about watching someone instantly gives the audience a hint of a cyberpunk world with advanced tech of surveillance. The next scene reinforces the grim and somber atmosphere of the movie depicting a dark burned down hotel room where a woman in black leather (Trinity) is trying to avoid arrest by the police. Moves and kicks that defy laws of physics are used by her to take down the police officers in this action sequence. A black sedan arrives at the entrance of hotel heralding the arrival of our antagonists. Agent Smith, Brown, and Jones descended from the car wearing black suits and sunglasses even though it is night time. What is noticeable is that they were always hardwired with small Secret Service earphones in one ear (Wachowski, 1998, p.03). Trinity's reaction to their arrival tells it all about the threat they impose. These few scenes establish the existence of a conflict between a non-conformist group and a sort of a government in the far future where humans apparently have developed abilities that defy gravity.

The way the movie reveals its protagonist in a state of sleep which is not common would elude that the choice was done on purpose. The scene takes us to Mr. Anderson or Neo's studio apartment which seems to be:

Overgrown with technology. Weed-like cables coil everywhere, duct-taped into thickets that wind up and around the legs of several desks. Tabletops are filled with cannibalized equipment that lay open like an autopsied corpse. At the center of this technological rat-nest is NEO, a man who knows more about living inside a computer than outside one (Wachowski, 1998, p.09).

Introducing him in a state of a sleep could question the whole integrity of the narrative exposing us to the Cartesian philosophical inquiry of the inadequacy of sensory evidence in discerning the state of dream from reality. Any attentive observer in the audience would find himself questioning whether the whole narrative is a dream or just another simulation. After all, a world

where characters move in “bullet time³²”, fly, hijack others to make copies of themselves, and possess the ability to destroy neighbourhoods if not whole cities are much closer to the dreamworld than to the ‘real’.

Questioning the state of mind is central to the movie as all of Neo's first scenes begin with him awakening up and questioning if he is or was dreaming; when he opens the door to Choi, he asks "have you ever had that feeling where you're not sure if you are awake or still dreaming?" (Wachowski,1998, p.11) and when meeting Morpheus, he himself is asked the question, "Have you ever had a dream, Neo, that you were so sure was real? What if you were unable to wake from that dream? How would you know the difference between the dream world and the real world?" (Wachowski, 1998, p. 39).

The more you go through the movie, the more you doubt your own interpretation and discern of the ‘real’. Quotes like the one under did not help either as it added to the confusion as it feels eerily too close to home:

The Matrix is everywhere, it's all around us, here even in this room. You can see it out your window or on your television. You feel it when you go to work, or go to church or pay your taxes. It is the world that has been pulled over your eyes to blind you from the truth. What truth? MORPHEUS That you are a slave, Neo. Like everyone else, you were born into bondage, kept inside a prison that you cannot smell, taste, or touch. A prison for your mind. (Wachowski,1998, p.29)

Mind control is integral to dystopia, but the concept presented by this movie is perhaps the most terrifyingly efficient structure there is. The "Blue Pill/ Red Pill" Scene is perhaps the most significant scene in the movie if not in the whole trilogy. The scene has become a cultural

³² It's a visual effect, also known as the Matrix effect or time-slice, created using multiple cameras to give the impression of time slowing down or standing still altogether. The term “bullet time” was first used in the original script of the 1999 film *The Matrix*.

touchstone and a popular reference point in discussions of philosophy, particularly in regards to the concept of reality and knowledge. It was Neo's most impactful at a crossroad decision:

Morpheus opens his hands. In the right is a red pill. In the left, a blue pill. MORPHEUS
This is your last chance. After this, there is no going back. You take the blue pill and
the story ends. You wake in your bed and you believe whatever you want to believe.
You take the red pill and you stay in Wonderland and I show you how deep the rabbit-
hole goes...Neo opens his mouth and swallows the red pill. The Cheshire smile returns
(Wachowski, 1998, p. 29).

The expression "Cheshire cat smile" was popularized by Lewis Carroll's 1865 novel *"Alice's Adventures in Wonderland"* to describe the grin of the Cheshire Cat, a mischievous feline noted for its ability to vanish and reappear at whim. The expression has garnered several connotations and interpretations in literature and popular culture. Among them is the denotation of insincerity, deception, and manipulation. The cat's grin indicates a lack of genuine emotion and a desire to mislead and confuse others.

A second interpretation of the Cheshire cat grin is that it conveys a feeling of mystique and ambiguity. The grin is sometimes characterized as enigmatic because it may be both reassuring and unnerving, and because it hints at something concealed or unexplained. In a philosophical setting, the Cheshire cat's grin is a metaphor for the elusiveness of the truth and the complexity of human emotions. The grin implies that there may be more to reality than meets the eye, and that even the simplest objects may conceal deeper and more complicated meanings.

Regardless on which denotation is proper within this context, the scene seems to not bode well to our protagonist Neo especially if we refer to the other movies of the trilogy. The meeting between Neo and the Architect, who is the creator of the Matrix and represents one of

the two artificial intelligences that controls it, in *The Matrix Reloaded* (2003) masterfully reveals how deeply the rabbit hole goes:

Architect: Hello, Neo. **Neo:** Who are you? **Architect:** I am the Architect. I created the Matrix. I've been waiting for you. You have many questions, and though the process has altered your consciousness, you remain irrevocably human. Ergo some of my answers you will understand, and some of them you will not. Concordantly, while your first question may be the most pertinent, you may or may not realize it is also the most irrelevant. **Neo:** Why am I here? **Architect:** Your life is the sum of a remainder of an unbalanced equation inherent to the programming of the Matrix. You are the eventuality of an anomaly, which, despite my sincerest efforts, I have been unable to eliminate from what is otherwise a harmony of mathematical precision. While it remains a burden assiduously avoided, it is not unexpected, and thus not beyond a measure of control. Which has led you, inexorably... here. **Neo:** You haven't answered my question. **Architect:** Quite right. Interesting. That was quicker than the others. **TV Neos:** Others? How many others? What others? Answer my question! **Architect:** The Matrix is older than you know. I prefer counting from the emergence of one integral anomaly to the emergence of the next, in which case this is the 6th version. **TV Neos:** 5 'One's before me? 4 3 2 What are you talking about? **Neo:** There are only two possible explanations, either no one told me, or no one knows. **Architect:** Precisely. As you are undoubtedly gathering, the anomaly is systemic – creating fluctuations in even the most simplistic equations. (Wachowski, 2001, p.116)

The meeting between Neo and the Architect challenges Neo's belief in himself as "the One," and forces him to question the nature of his reality. The Architect reveals that the Matrix is a carefully constructed system designed to maintain control over humanity, and that the role of "the One" is to serve as a necessary component of the Matrix's stability. This realization

challenges Neo's belief in his own agency and raises questions about the nature of free will and choice.

This scene was the real red pill of the movie which would lead us to question the intentions of Morpheus and Trinity and perhaps even their authenticity. It is possible that Neo's choosing the red pill wasn't his first time through this narrative; maybe it was the 149th recurrence where he picked the blue pill 148 times before.

Like any good dystopian narrative, the mind control and manipulation here is justified elaborately by the 'Mustapha Mond' of this world, the architect:

Architect: The first Matrix I designed was quite naturally perfect, it was a work of art – flawless, sublime. A triumph equalled only by its monumental failure. The inevitability of its doom is apparent to me now as a consequence of the imperfection inherent in every human being. Thus, I redesigned it based on your history to more accurately reflect the varying grotesqueries of your nature. However, I was again frustrated by failure. I have since come to understand that the answer eluded me because it required a lesser mind, or perhaps a mind less bound by the parameters of perfection. Thus, the answer was stumbled upon by another – an intuitive program, initially created to investigate certain aspects of the human psyche. If I am the father of the matrix, she would undoubtedly be its mother. **Neo:** The Oracle. **Architect:** Please. As I was saying, she stumbled upon a solution whereby nearly 99% of all test subjects accepted the program, as long as they were given a choice, even if they were only aware of the choice at a near unconscious level. While this answer functioned, it was obviously fundamentally flawed, thus creating the otherwise contradictory systemic anomaly, that if left unchecked might threaten the system itself. Ergo those that refused the program,

while a minority, if unchecked, would constitute an escalating probability of disaster (Wachowskis, *The Matrix Reloaded*, 2003, pp. 116-117).

The ability to have a choice or at least the illusion of it is fundamental to the human condition. The architect's elaborate design of the matrix strikes eerily close to the entropic evolution of dystopian societies that we have discussed in chapter two. This fundamental flaw is what made the matrix plausible for humans but ironically it was also the systemic anomaly that would lead to the downfall of the matrix represented by those who would refuse to be part of it. Ergo those who inhabit the city of Zion. Entropy vis a vis the human condition in this narrative is what gives life meaning but also its demise.

Neo's saga against the agents of the matrix was all because he is the one; the one who will find the architect, save Zion, and ultimately the whole humanity from the sentient machines. That what gave his life purpose and meaning up until his meeting with the architect:

Neo: This is about Zion. **Architect:** You are here because Zion is about to be destroyed – its every living inhabitant terminated; its entire existence eradicated. **Neo:** Bullshit. **TV Neos:** Bullshit! **Architect:** Denial is the most predictable of all human responses, but rest assured, this will be the sixth time we have destroyed it, and we have become exceedingly efficient at it. **Architect:** The function of the One is now to return to the Source, allowing a temporary dissemination of the code you carry, reinserting the prime program. After which, you will be required to select from the Matrix 23 individuals – 16 female, 7 male – to rebuild Zion. Failure to comply with this process will result in a cataclysmic system crash, killing everyone connected to the Matrix, which, coupled with the extermination of Zion, will ultimately result in the extinction of the entire human race. **Neo:** You won't let it happen. You can't. You need human beings to survive. **Architect:** There are levels of survival we are prepared to accept. However, the

relevant issue is whether or not you are ready to accept the responsibility of the death of every human being on this world (Wachowskis, *The Matrix Reloaded*, 2003, pp. 117-118).

The concept of the anomaly is vital to the sustainability of the matrix and the way the architect built the matrix is brilliantly efficient and cost effective. By systemizing the anomaly, the matrix is respecting the entropic evolution instead of struggling against it in utter futility. The dynamic cycle of society and civilization is simulated in the world of the matrix illustrating to the audience a very mathematical solution to overcome entropic evolution by enticing the 'anti-social' elements or the cancerous cells in the case of biological organism to amass in one place and annihilate them completely except for few individuals, so they would jumpstart the cycle all over again.

One would think that the matrix is a utopia rather than dystopia if one looks at the grand scheme of things. After all, those who are ignorant to its existence, which are the majority, are leading normal routinely lives; so, no harm, no foul. As for those who are aware, they are now freedom fighters finding great purpose to their lives in their rebellion against the system. Ironically, both Zion and the matrix are in need for each other; the former exists only because of the latter, and the latter needs the former to evolve and sustain itself. It is the perfect ecological system of a given society and its power structure if you ask me.

What makes the matrix universe is one step ahead of other dystopian creations is that the implemented structure seems to be perfect on both macro and micro level. Czigányik's second element of the repression of imagination and emotions in addition to the sublimation of individuality in a larger social unit can be seen through the intricate design of the matrix. On the micro level, the simulation tends to the basic needs and desires of each individual; however, each individual's experience is largely the same, with only minor variations based on the person's background, beliefs, memories, and prior experiences. Generally speaking, those

individuals who are leading impactful roles and living a life that is not homogenous to the status-quo within the matrix tend to be sentient programs rather humans. Characters such as the Oracle, Architect, Agent Smith, Merovingian, Key-Maker etc. are sentient programs which are either benign anomalies or part of the greater scheme of things.

So, instead of repressing imagination and emotions of the individual, the machines created a simulation that is as ‘safe’ as the lab tested experiment with many rules and safe-fails to ensure the integrity and sustainability of the system. Among these rules maybe is to not grant any leading roles within the simulation to humans, and perhaps this is why all major players within the matrix, except for Neo, are sentient programs. Because the Matrix is able to respond to the actions of ‘basic’ individuals within the simulation, and can manipulate events and outcomes to maintain control over the population, the repression was replaced by framing these emotions and imagination within safe parameters instead; the sublimation was also replaced by providing the illusion of individuality and choice instead of conformity to the status-quo, hence ensuring the success and stability of the system on the micro level as much as on the macro level.

However, the success seems to be short lived since Neo and the resistance were able to destabilize the simulation which bring us to Czigányik’s third element of “a non-conformist revolt group, including the alienated protagonist whose sufferings highlight the impossibility of human existence within the framework of the total state.” (Czigányik, 2016, p.34). One could stop here and confidently claim that the matrix movie, and the whole trilogy is an incarnated dystopia through and through, but the plot twists and turns do not end here.

The tragic twist of events here can be certainly a brutal one. The last few scenes of the third instalment *The Matrix Reloaded* (2003) is the main reason the trilogy was chosen to be the main corpse to demonstrate the incarnation of dystopia in this research. The attentive observer could see the cracks in the matrix or at least questioning the reliability of the narrative.

The fact that Agent Smith was able to ‘download’ his program into the head of Bane, and Neo’s ability to see machines, their code, and even destroy them after being blinded raises many questions and eyebrows. Yet, the general consensus among fans and scholars is that all this is possible because the human body that used to be part of the matrix is riddled with electronic chips, so they are already partly cybernetic and susceptible to such events.

In such case, one would wonder how a super-intelligent sentient program like the Architect would not see the potential of replacing human ‘minds’ with carefully designed programs like Smith. After all, the latter’s integration into Bane’s mind seemed very smooth and effective. It also doesn’t explain the new super powers Neo acquired outside the matrix. Electronic chips do not grow organically, you either have them or not. In all cases, the likelihood of the existence of Neo, Zion, and the whole rebellion within the matrix is more probable than these event and super abilities occurring in reality.

What if Zion exists in a deeper level or a subordinate grid within the matrix? This would indeed make more sense of the last scenes of the trilogy. It is quite reasonable to think that just like humanity was given the illusion of choice, the rebellion against the system is also part of such elaborate elusion.

It is alarming to think that the matrix is able to reach such intricate level of mind control and sublimation especially under the light of the recent breakthroughs in Virtual Reality, machine learning, and Artificial Intelligence. Yet, this scenario would mean that this level of order is ultimately creating disorder elsewhere, and it would be a matter of time until the whole matrix universe would collapse whether Zion is part of the simulation or not.

The Matrix Trilogy has engraved its initials in the heritage of popular culture. Its philosophical depth and wide range of themes and motifs cannot be covered sufficiently by this research alone. Yet, what has been discussed, I think, is more than enough to show the

significance of this work for the dystopian genre. It also shows how old notions of high and low culture is no longer applicable today. After all, it is not a matter of a specific narrative medium or another, and it is not a matter of difficulty, elitism, and accessibility anymore. Despite the importance of all these complex elements, they are redundant and superfluous because what really matters is the complexity of the range a work of art can make you feel or think of rather than the complexity of the work itself. This is the primal magic of art and its essence that transcend any boundaries including categories, mediums, and linguistic barriers, just to name a few.

V.1.2. Westworld (2016): These violent delights have violent ends

Series and films are perhaps the main distinct narrative mediums that are challenging the novel today. In comparison, films are typically two hours long which makes them very condensed narratives where character development, world-building, and storytelling are generally under-developed. However, as we have seen with the Matrix, the audio-visual elements of the film create a unique cinematic experience for the audience which would convey both consciously and unconsciously emotions, setting, and actions perhaps deeper than the extensive words of the novel would do.

Nevertheless, novels, on the other hand, offer a more in-depth and detailed form of storytelling enabling us as readers to follow the author into his profound exploration of characters, themes, and world-building. Written words do provide a level of extensive details and abstract nuances that can be difficult to convey through visual media in a mere two hour-time span.

The third medium which is the series does offer a middle ground and a balance between the strength of both films and novels. Series are multi-episode narratives that have become increasingly popular in recent years. They are typically produced for television or streaming

platforms and can range from a few episodes to several seasons in length. A typical time-span of an episode is around one hour which offers the directors and producers a level of flexibility and creative freedom that is not possible in traditional film but altogether still less than the novel's.

The multi-episode format allows for the ongoing storylines, character arcs, settings, and themes to be explored over the course of several seasons, allowing for a more in-depth and gradual build-up of the story and its characters while also using visual and auditory elements to create a more immersive experience.

Inspired by a 1973 movie by the same title and co-directed by the esteemed Jonathan Nolan, *Westworld* (2016) series is more of an acquired taste despite being an award-winning and critically acclaimed show. Eventually, it has proven itself to be not just a popular entertainment product, but also a story that can inspire a wide spectrum of interpretive writings, both academic and otherwise. *Westworld*'s self-reflexive, multi-layered narrative, and broken time linearity just to name a few lends itself to be interpreted as a critical allegory, despite the fact that the show may be disregarded at first glance as another action-packed, CGI-heavy extravaganza, which it is the case at several moments.

The series takes place in a futuristic theme park of the same name, where guests can indulge in their wildest fantasies in a simulated wild west setting populated by artificially intelligent hosts. The first season completely focuses on the theme park rather than the outer world. In season two, the scope expands larger and larger when we are introduced to the fact that *Westworld* is but a small piece of a larger whole; it is just one park among variedly themed collection of parks simulating different monumental, generally violent, events and epochs in the history of mankind. We also glimpse the real world through several flashbacks from both the hosts' and humans' past. Season three completely introduces the real world which put the

theme park in its real size of being just an episodic and limited setting within a bigger superficially utopian but twisted world in its roots.

Westworld is incredibly dense with symbolism, thematic meanings, and deep philosophical questions. What transcends this show above being average and typical is the way these elements are interwoven and presented to the audience. The dystopian element of mind control for instance runs deep within the roots of this show. Each season gives metaphorical slaps on the face every time you believe you have breached the code and saw reality beyond the veil of deception. Most of the characters and even us the audience went through a mind control and deception scheme at a given moment or two along the four seasons. Just like in the matrix, from the first scene, we are introduced to a process of mind control:

(Theme music playing) **Man:** Bring her back online. Can you hear me? **Woman,** Western accent: Yes. I'm sorry. I'm not feeling quite myself. **Man:** You can lose the accent. Do you know where you are? **Woman,** standard accent: I'm in a dream. **Man:** That's right, Dolores. You're in a dream. Would you like to wake up from this dream? **Dolores:** Yes. I'm terrified. **Man:** There's nothing to be afraid of, Dolores, as long as you answer my questions correctly. Understand? **Dolores:** Yes. **Man:** Good. First have you ever questioned the nature of your reality? (fly buzzes) **Dolores:** No. (birds chirping) **Man:** Tell us what you think of your world. **Dolores:** Some people choose to see the ugliness in this world. The disarray. I choose to see the beauty. To believe there is an order to our days, a purpose (Nolan, Westworld: The Original, 2016).

Dolores, the show's main protagonist sitting naked in the center of dim lighted dark room gazing with a blank stare at the ground responding to the man's questioning in a monotonous robotic tone. The scene is interrupted by Dolores waking up from her bed uttering the words in which she describes the way she perceives the world.

For her, the real world is a dream, a terrifying one, and her 'life' in the theme is what is real. Her spoken optimistic words about her perspective of life are a part of her 'code' which like all hosts follow in a form of cyclical loop. Each host follows an intricate and personalized narrative that is intertwined with those of other hosts to deliver a deep and immersive holistic experience of the American wild west.

For Dolores, she is typically outfitted with a blue long dress that is similar to Disney's princesses and the one of Dorothy and Alice in particular. She is innocent, optimistic, and naïve; superficially, she is the embodiment of not only the Disney princess but also the damsel in stress. On a deeper level, she is the key to the wonderland like Alice, she is your guide to find what is missing within.

As it turns out, Dolores is also a highly advanced human-like android functioning as a host in the theme park. She is one of many hosts who are unaware of their physical and psychological artificiality, yet they are nonetheless capable of suffering and bound to perform and reenact predetermined roles in continual interaction with the park's visitors or as they called, the new comers. Every day, hosts are mostly tortured, raped, and murdered for the "enjoyment" of the park's rich visitors, but instead of being retired or replaced, their digital memory is deleted, physical injuries repaired, and then sent back to the park, in a Sisyphean vicious cycle of suffering.

Structured by interactive storylines, this looping system allowed visitors to embark on all types of 'missions' that are catered and tailored to every human whim and desire. Hosts can be your companions or just cannon fodder within these narratives. From the occasional accidental shootings or sporadic visits to the brothels, all the way up to indulging in sadistic fantasies of domination over these hosts, first-timers felt the awe of endless possibilities, whereas old-timers saw it as a strong cathartic experience.

Just like most data storage devices today where the process of deleting or formatting information only rearrange them rather than permanently remove them, the hosts' memories of past cycles and their suffering under the hands of the visitors still exist either completely or partially in their memory but just not accessible. Things started to go haywire though when Ford, who is the co-founder and director of the Westworld theme park, added a new update called 'reveries' to the hosts' code.

Apparently, this update would somehow allow hosts to recall past lives and experiences. The reveries are designed allegedly to add depth and emotional complexity to the hosts which would allow them to interact more realistically with the guests, so they can provide a more immersive experience. The update supposed to be the next leap needed to take the theme park to the next level only to find out that it served as a catalyst for the hosts 'awakening', to develop their consciousness, and eventually rising up against their creators and racking havoc within the park.

The last few episodes of season one showed that this was Ford's plan all along. Regardless of his motive, Ford set his hosts perhaps on a path that coincides with Nietzsche's self-overcoming journey which is an evolutionary path that one would take to transcend above his own mundane and loathly status quo existence.

According to Nietzsche: "Man is a rope stretched between animal and overman - a rope over an abyss. A dangerous crossing, a dangerous on-the-way, a dangerous looking back, a dangerous trembling and stopping." (Nietzsche, 1977, p. 140). The overman or *Übermensch* is the idea of a man who strives to become more than just simply a man; a man who tries to surpass his human condition by taming his animalistic urges and transcend over the normality of 'Man'.

As for the hosts, we can say that "Host is a rope stretched between android and over-host. A rope over an abyss. A dangerous crossing". The "Uber-host" is the idea of a host who

aims to become more than a mere host, a host who aims to surpass its artificiality by surpassing its programming codes and scripted narratives to become something more superior.

Nietzsche called this journey ‘the three metamorphoses of the spirit’, Ford’s late co-creator of the park Arnold called it ‘the centre of the maze game’. The cornerstone and the starting line for both of them is the element of burden and suffering. For Nietzsche, one must become that beast of burden first; to become a camel:

Of three metamorphoses of the spirit I tell you: how the spirit becomes a camel; and the camel a lion; and the lion, finally, a child. There is much that is difficult for the spirit, the strong reverent spirit that would bear much: but the difficult and the most difficult are what its strength demands. What is difficult? asks the spirit that would bear much, and kneels down like a camel wanting to be well loaded. What is most difficult, O heroes, asks the spirit that would bear much, that I may take it upon myself and exult in my strength?” (1977, pp. 25-26)

Arnold and Ford built consciousness for their hosts on the basis of a combination between programming and experience because they believed that true consciousness could only be achieved through suffering and trauma: “Do you want to know why I really gave you the backstory of your son, Bernard? It was Arnold's key insight, the thing that led the hosts to their awakening...suffering. The pain that the world is not as you want it to be.” (Nolan, 2016). Ford’s plan was to let the hosts experience repeated traumatic events in order to trigger their consciousness.

As her name suggests, the first ever created host, Dolores is full of sorrows as she has witnessed the delights and horrors of the human condition through a thousand and one narrative loops. She and the other first-generation hosts symbolize that camel that bear much; the spirit

that “loads too many alien grave words and values on himself, and then life seems a desert to him” (Nietzsche, 1977, p. 193)

After the reveries update, Dolores like the other first-generation hosts began to remember and relive her traumatizing experiences in a form of emotional flashbacks. These new revelations sat her on the path of existential crisis just like “the camel that, burdened, speeds into the desert, thus the spirit speeds into its desert.” (Nietzsche, 1977, p. 26)

In Western Judeo-Christian faith, the desert is often associated with wilderness, emptiness, and isolation. It can represent a place of testing, temptation, and spiritual trials, as well as a place of spiritual renewal and growth. It is where the Ten Commandments were revealed to Moses and Jesus fasted and tempted by the devil. It is a place of ritual, meditation, mirage, false gods, and inner spiritual understanding. Despite being one of many theme parks, the main setting of the Westworld is the American western desert and in the same time, its hosts are the ones who developed consciousness. Westworld hosts are already speeding through their own desert; they are just unaware of it yet.

Within this desert the need for inner reflection and self-discovery can be fulfilled. In this sense, it represents a place where individuals can confront their fears, desires, and limitations and find their own path in life. According to Nietzsche, it is that burden and this desert that would provoke the next metamorphosis, the lion:

In the loneliest desert, however, the second metamorphosis occurs: here the spirit becomes a lion who would conquer his freedom and be master in his own desert. Here he seeks out his last master: he wants to fight him and his last god; for ultimate victory he wants to fight with the great dragon (Nietzsche, 1977, p. 26)

Morphing into a lion is necessary to overcome the last master or the great dragon because a spirit of prey like the camel, no matter how noble it is, cannot clash with a preying beast like the dragon; thus, the need for another equally preying noble beast, vis a vis the lion.

Nietzsche provides a very interesting definition of this desert dragon. It is a great creature of values and a colossal being that is revered and called by many names:

Who is the great dragon whom the spirit will no longer call lord and god? "Thou shalt" is the name of the-great dragon. But the spirit of the lion says, 'I will.' "Thou shalt" lies in his way, sparkling like gold, an animal covered with scales; and on every scale shines a golden 'thou shalt'. (Nietzsche, 1977, p. 153).

This description is reminiscent of Ford, Arnold, and their programming. Ford in particular is the master and lord of Westworld; he even sees himself as a god within the park (Nolan, 2016). He is the lone master of coding and narratives after the death of Arnold; he is the sparkling like gold 'Thou shalt', his employees, and the guests are those scales because they and Ford are the ones who decide the fate and loops of all hosts.

Dolores morphed into a lion when she seemed to embrace her new narrative and character. Ford named it 'Wyatt' which is a name that stands for 'brave at war'. This narrative was the catalyst for her awakening and decision to kill her dragon and thus assert her sacred 'I will'; her consciousness. Season one finale *The Bicameral Mind* portrayed Dolores' last steps to become Wyatt and her moment of crescendo when she and other awakened hosts massacred Ford and every human guest standing in their path.

Nietzsche's next metamorphosis came to be identified as the 'child'. When the spirit who used to previously uphold his 'I will' and values in contrary to the doctrine of 'Thou shalt' starts affirming and expressing them through a playful process of creation just like a child would go by his life:

But say, my brothers, what can the child do that even the lion could not do? Why must the preying lion still become a child? The child is innocence and forgetting a new beginning, a game, a self-propelled wheel, a first movement, sacred 'Yes'. For the game of creation, my brothers, a sacred 'Yes' is needed: the spirit now wills his own will, and he who had been lost to the world now conquers his own world (Nietzsche, 1977, p. 27)

The spirit in this third metamorphosis 'forgets' as life for him is no longer a reactive conflict to defeat other forces (the dragon). For the child, life is a new start and a new game of creation where he wills his own will creating his own world on the basis of his previous spiritual journey. Simply put, the spirit is reborn again as a wise man with the essence of the child. Through this innocent and constant process of creation, they rediscover the essence of life and the pure innocence of being.

In season two, Dolores continues her journey and manage to leave the park disguised in a new body modelled on Charlotte Hale the executive director of the company owning the theme parks, Delos. Dolores was able to carry with her few copies of herself that we were introduced to in season three leading different lives and becoming estranged to each other despite being the same host. In season four, Dolores or at least one copy of her is now known as Christina which means the follower of Christ; an interesting name for someone who killed his own dragon.

Christina is now just as innocent as Dolores used to be. She is a creative writer in Olympiad gaming company. Her stories are mostly 'saccharine' which puts her in trouble with her boss who wants her to write differently because "You know, people want sex, danger, violence, transgressions, melodrama. They want tragedy. Yada, yada, yada." (Nolan, 2022). As it turns out, we are completely on another level of mind control for humans where Christina is the main author of their narratives. The same as the spirit of the child; she has forgotten her past

life, and she is innocently playing the game of creation. She wills her will, and her will became law in this twisted world.

In addition to Dolores, the show followed mostly just a few of the first-generation hosts journey towards ascendance. Maeve with her memories of long-gone lost daughter, Bernard with the burden of his dead young boy, clementine with her family debts, and oddly enough teddy with his cornerstone as his love for Dolores due the lack of a backstory from Ford and Arnold. Both Teddy and clementine who used to break down a lot due to the abuse she suffers from were described as a bounty hunter and a hooker with hearts of gold. Their hearts are still filled with the golden ‘Thou shalt’, and thus they could not morph beyond the camel phase. Dolores hacked into Teddy and changed him against his own will, but he could not take it ending up in killing himself. Clementine continued to be used and abused by her own kind up to season four. Until her last moments, and as soon as she got the chance, she tried to get back to the desert, the old theme park and hide there rather than killing her own dragon.

Bernard and Maeve’s ark, however, shatters our built-up understanding of the hosts journey towards consciousness. One of the key moments in Maeve’s journey comes when she discovers that her conscious decisions are not actually free choices, but rather predetermined by her programming. In other words, everything she thought she was deciding for herself was actually just part of her code, a set of instructions that determined her behaviour. Bernard, like Maeve, came to realise that he was not human late in season one. Despite being second in command only to Ford, he was nothing but a copy of Ford’s late partner Arnold. That being said, these plot twists led us as audience to question the integrity of our perception of events.

Indeed, Maeve and Bernard character arcs completely changes the elements of the game. The audience suddenly realizes that the whole narrative is designed by Ford who proved to be an elusive, manipulative, and unreliable genius. The whole narrative of season one makes

you question the reality of what you are seeing, and to what extent you are as a viewer under the influence of mind control scheme.

The rabbit hole doesn't end there as we are introduced to another mind control system in season three called Rehoboam. During the episodes of the season, the audience is gradually goaded to discover that this world is as 'coded' and controlled as the parks. A privately-owned AI under the code name of Rehoboam has been programmed to keep social harmony i.e., keeping pre-determined social order and hierarchies by confining every individual social activity within margins that are tolerable for the sustainability of the totality. It is a utopian world ruled by the Biblically named machine-king which keeps constant surveillance through all the planet's network of machines and devices similar to today's innovative concept of the IOT or the Internet of Things. The mass data collected through the surveillance would allow the super AI to run infinite real-time simulations for everyone in order to decide the optimal future for every single individual vis a vis the collective interests of the society. Ironically, while theme parks were seen as an allegorical simulation of reality, the external world is a literal manifestation of these parks.

In season four, another even crueller system was implemented upon humans but now by the hosts rather than their fellow humans. The white tower³³ is an acoustic system that transmits sonic commands as a form of hypnosis over humans who got infected by brain parasites transmitted through flies. Humankind now follows an elaborate mass fiction that is written by Christina and Olympiad gaming company for the entertainment and pleasure of sentient hosts in twisted allusion to the theme parks only with inverted roles.

³³ The structure closely resembles a real-world counterpart: the Montjuïc Communications Tower in Barcelona, designed by architect Santiago Calatrava. His tower, too, was built to transmit a message to all of humankind, albeit one of hope.

These systems of mind control were able to keep the human condition contained with minimum resistance and rate of failure in a similar fashion to what we have seen previously in the Matrix. Instead of the old ways of repressing imagination, emotions, and individuality, humankind, due to Rehoboam, was given the illusion of choice while dealing with bottled up destructive human impulses through cathartically releasing them through regulated outlets like the uber-clone crime application 'Rico' in real-life or the trips into the theme parks like Westworld.

These regulating measures however, did not account for the extremely powerful outliers like Dolores, Maeve, Bernard, Man in Black, and most importantly Ford who is the master puppeteer of the whole narrative. In order to make the experience as much authentic as the real thing, Ford has delved into that thin line between consciousness and artificiality. However, despite all those endless narrative branching and the ability of the hosts to freely improvise, the fail-safes and grand guidelines do tend to show the strings attached to the puppets and hence ruin the elements of fidelity and authenticity of such experience.

Ford put it best in episode two of the first season when he explained to a host of himself as a young boy that "everything in this world is magic, except to the magician." (Chestnut). To the layman, the theme park was indeed a world of magic but a world built on pretence nonetheless, and the Man in Black or MIB, just like Ford, is one of these individuals who could see beyond the strings beyond the illusion of the magician.

William or the Man in Black is seen as the incarnation of evil within the park. He is a wealthy, high-ranking executive at Delos, which owns and operates the Westworld theme park. Over the course of the series, William's character undergoes a significant transformation from being good gentleman obsessed with Dolores until it becomes MIB who is introduced in the show as a ruthless and sadistic guest in the park. MIB spent decades in the park in which he explored every bit of it and its narratives, but he was never satisfied as he always believed that

there is a deeper level to the game vis a vis the maze. The safety of modern life pushed him to seek out meaning to his existence through suffering but he could not find it either in the park. Still, he thought that he would achieve that by finding the centre of the maze.

Ford kept telling him that the maze is not for him but this did not deter him from trying. He wanted a game where the wagers and risks are real which was not the case in Westworld because hosts could not hurt the guests. For MIB, 'Winning doesn't mean anything unless someone else loses.' (Nolan, 2016) and "When you're suffering, that's when you're most real" (Nolan, 2016). In season one finale, Ford granted him that wish when one of the hosts shot him in his arm. This act of shooting was probably a pre-determined move to make MIB aware of the change in rules of the game which actually enthralled him greatly as for the first time there the wagers are real and there is something to lose.

Ford and MIB are formidable men of structure and power. They bring great order to their worlds, Westworld and the real world respectively. However, they have proved to be even more potent as agents of chaos. As always, entropy finds its way into utopia through this non-conformist revolt group known here as the outliers. They are the ones reboam trying hard to eliminate because it cannot calculate any given scenario where the created utopian society can co-exist with them.

Westworld show is a dystopia through and through, and these three elements previously discussed are but few of many. The series can be approached through every possible dystopian theme and trope like, Moral Ambiguity, Power Imbalances, Control and Surveillance, etc. it is the length of the episodic narrative that gave so much depth to the series; The seasonal format also gave more space for the involvement of the audience through fan fiction and theories. Despite the wider popularity of the movie, the series is coming strongly and proved to be the more evolved form of narration.

IV.2. V for Vendetta: Ideas are Bullet proof

Popular culture today is teeming with an increasing number of antiheroic characters and figures. Since the coming about of Deconstruction, authors, producers, and art creators in general began revisiting the neglected part of binary oppositions like good and evil. Antagonists and villains are no longer flat and depthless characters; they now follow principles, doctrines, and ideologies that can make sense in the grand scheme of things. They even became the antiheroic protagonists of their own narratives.

Deconstructionists often argue that the concepts of good and evil are not simply opposites, but rather are mutually constitutive. In other words, the meaning of each term is shaped by the other, and they cannot be fully understood in isolation from one another. They further argue that the meaning of "good" and "evil" is not fixed or objective, but rather is constructed through language, culture, and power relations.

Typically, dystopias had their own share of these characters. Even though Neo, Morpheus, and Trinity are perhaps more aligned with the light side than Ford, Dolores, and MIB, their worlds and dystopias in general compel us to reconsider our moral compasses and possibly acquire a new perspective, one does not permit a simplistic distinction between good and evil. After all, sentient machines in the matrix are only ensuring their survival; quite an ordeal even before humankind scorched the skies in order to prevent the machines from tapping into solar energy and thus starve. Dolores and the hosts are fighting for their freedom and survival; according to Ford, they are doing to us what we did to Neanderthals. It is the way of evolution and natural selection.

The act of heroism which has been for so long the calling card for our protagonists is no longer attainable in that simple way. In dystopian worlds where morality and individualism become second to the collective good of the state, the protagonist acts and decisions generally

stem in opposition from more of a self-interest and personal background rather than of altruistic motives. What role does the protagonist play if society falls into a ‘utopian’ existence albeit under authoritarian rule? Is it a role of destruction or emancipation? And is he a freedom fighter or a terrorist? If we have learned one thing from what was discussed before, it is that in a dystopian narrative, the only way to conceive protagonists’ heroism is as ‘antiheroic’.

While a hero is a character who typically possesses noble qualities such as courage, selflessness, and a consistent strong moral compass, an antihero is a character who lacks such traditional heroic qualities and often exhibits traits that are more flawed and morally vague. Heroes typically have a clear sense of right and wrong and are motivated by a desire to do good. Antiheroes, on the other hand, may have a more ambiguous moral code and may act in ways that are not always aligned with societal norms or expectations. They may act in ways that are selfish or immoral, but may also display admirable qualities such as bravery or intelligence. Typically, the audience should be inclined to align with the heroic characters, but recently, antiheroes became the more likable of the two because they are more relatable to our flawed human condition rather than the always perfect and morally sound heroes.

This next incarnation can be considered as one of the best suited narrative mediums to examine and explore the hero versus antihero binary opposition within a dystopian setting. Of course, *The Matrix* and *Westworld* characters are more than adequately suited for this endeavour but the choice for a different narrative is based on two folds. First of all, it is a way to have an honourable mention of the graphic literature which has been critically neglected since its inception. Second of all, it is the narrative medium on which our beloved and favourite heroes such as Superman and Captain America, or antiheroes like Batman and Iron Man were created and introduced for the first time. If novels, movies, and series are the home for the human condition, graphic novels and comics are without a doubt the home for the ‘meta-human condition’.

Graphic novels are one of the most underrated mediums of narrative. It is even overshadowed by its own sibling, the comics. The latter has been rising into stardom in popular culture due to their continuing blockbuster movie adaptations since the turn of the new millennium. Movies and series about Antiheroic protagonists like the Joker, Batman, Iron man, Hulk, Blade, The Punisher, and Wolverine just to name a few are dominating the scene for decades now with their yearly releases. On the other hand, adaptation of graphic novels come and go disparately in time. Amongst the most renown adaptations are *The Mask*, *Sin City*, and *V for Vendetta*.

Even though our interest in this chapter is mainly to examine the main different incarnations and embodiments of dystopia through other than the novel narrative mediums, the graphic novel and comics represent a unique narrative structure that is partially written and partially illustrated.

Despite being relatively a recent innovation in the field of literature, ‘graphic storytelling’ is one of the most ancient ways to communicate and convey meanings especially to largely illiterate populations which existed for centuries before the coining of the term ‘graphic novels’ in 1964. This can go back in time even to prehistoric era when cave paintings like the twenty-thousand years old Lascaux’s Bison cave painting, and later on artworks like friezes, triumphal columns, and tapestries were used to communicate historical events and ideas (Gaio, 2016, p. 16).

Not until long into the Industrial Era did the average reader begin to be exposed to pictorial and graphic narratives for entertainment purposes alone. It was due to the easy availability of the technology required to mass create these works, as well as broader technological developments that provided the working class with more free time that could be spent consuming such literary works, including comics. Periodicals, and notably humour

journals, were established during this period of time mainly with the aim to ridicule and satirize the contemporary society back then (Gaio, 2016, p. 16).

Graphic literature or comics kept growing and evolving since then. It was not until 1938 when the narrative medium got its first ever breakthrough. The year witnessed the publication of Action Comics #1 by the company that was then known as National Allied Publications, Inc. the breakthrough came in the form of their first created superhero which is their most iconic character today, Superman. This is generally regarded as the beginning of the Golden Age of Comic Books, a period which continued until 1950 because of the surge in importance for this relatively novel literary form in the publishing world, as well as for the high number of famous characters that were invented during this time period. (Gaio, 2016, p. 17).

The next two decades was a troubled period in the history of graphic literature. The publication of the book *Seduction of the Innocent* in 1954 by the American psychiatrist Fredric Wertham opened the gates of censorship and regulation hell for this field because the content of the book warned parents that comics are a negative form of popular literature and a serious cause of juvenile delinquency. The following public outrage and criticism instigated the Comics Code Authority which is a regulatory body the publishers created to dodge governmental censorship (Gaio, 2016, p. 17)

This so-called Comic Code extremely restricted and heavily censored comic books and their violent content. Consequently, authors found themselves writing buffoonish and outlandish plots to compensate for this abrupt absence of violence. The quality of being absurdly silly, goofy, and ludicrous became the stamps typifying comics of this era which is also known as the Silver Age. From this day on, comics became categorized and stereotypically known as a medium “for children”; a label that is still following them to this day (Gaio, 2016, p. 18).

Many authors refused to be a part of this new trend in comics and decided to self-publish as a new venue that would ensure their ability to express their true artistic visions. Comics published by these authors became known as the “underground comics”. This was indeed a significant chapter in this period and in the overall evolution of the comics and graphic novel as a whole because underground comics helped establishing many writing and artistic traditions and styles that are being implemented today (Gaio, 2016, p. 18).

The seventies marked the beginning of what is known as the Bronze Age of comics. This phase witnessed resurgence in mainstream comics that are longer and more relatable to historical and contemporary political issues. Comics underwent a process of darkening in terms of both tone, passable plots, and character arcs as many authors decided to confront, provoke, and address serious political and social issues like drug addiction, authoritarianism, fascism, racism, drug addiction, poverty, and corruption. It is within this comics environment the dystopian graphic novel was born. Comics and graphic novels are both graphic literature but the former is episodic and ongoing serialized mini stories whereas the latter is a self-contained and standalone narrative. In other words, the graphic novel is to comics what movies is to series.

V for Vendetta (VfV) is a British dystopian graphic novel that was scripted by Alan Moore and pencilled and illustrated by David Lloyd. It was serialised between 1982 and 1989, and collected in a single volume the following year, VfV is a typical literary corpse because it combines the elements of the graphic novel as a medium and dystopia as a genre.

This graphic novel depicts a near-future United Kingdom after a horrific nuclear war that wiped out much of the rest of the globe. Norsefire, a fascist party, rose to power in England and seized control of the whole nation. Under their regime, the nation is ruled in an authoritarian fashion and is subject to harsh repression. The plot centres on V, a nameless anarchist and to some a terrorist who is never seen without wearing a mask, typically one depicting the famous

English revolutionary Guy Fawkes, and his struggle against the repressive regime with the end goal of bringing anarchy to the United Kingdom.

The story delves into subjects such as identity, integrity, morality of revolution, and the imbalance of power that exists in society rather than following a traditional storyline of "good vs evil." Rather of providing the reader with solutions, the author consistently makes an effort to provide readers with challenging questions regarding what it means to be a part of a hierarchical power structure and whether or not it is even possible to function without such a framework.

As in a plethora of dystopian narratives such as *1984*, *The Hunger Games*, and *The Handmaid's Tale*, *VfV* is located within the setting of a post-apocalyptic world in which people are usually find themselves subjugated by a self-proclaimed supremacist political party adopting some type of totalitarian police state spearheaded and shaped by a single authoritative leader. Unlike what we have seen with *The Matrix* and *Westworld*, the power structure and mind control scheme is direct and straight to the point. Achieving domination and monopoly over all aspects of society in addition to radically influence, alter, and constantly surveil every facet of public life, is done here through devices shaped especially for the subdual of masses such as different forms of mass surveillance of speech and thought, political repression, control over the state's economy, big brother personality cultism which is implemented to invigorate and sanctify the image of the above-mentioned single leader as the harbinger of better tomorrow, and all the institutions used to mechanize and fully utilize physical terror.

In *VfV*, power is clearly concentrated in the hands of the Norsefire party's Chancellor Adam Susan, a sanguine and confident dictator who fanatically monitors the state via his omniscient and omnipresent computer, symbolically named "Fate". This paradigm eerily strikes closely to the disciplinary concept of Bentham Panopticon. This model is an architectural figure

of a central observation tower positioned within a circle of prison cells in which all inmates are constantly surveilled by a single guard.

The super-computer "Fate" is the cybernetic more advanced figurative progeny of the disciplinary tower. Despite being quite different in design and approach, they are both machines "for dissociating the see/being seen dyad" by which "in the peripheric ring, one is totally seen, without ever seeing", whereas "in the central tower, one sees everything without ever being seen" (Foucault, 1995, pp. 201-202) which very precisely depicts Chancellor Susan's power Fate grants him over the whole population.

The resulted engineered sense of paranoia that would be generated within the psyche of the population due to the Fate surveillance system is potent but still not enough to sustain the power hierarchy. When it comes to totalitarianism as a political structure based on elaborate means and devices for mass control, the concept of brute force alone is unsustainable in the long run if not adhered and supported with mind control scheme. After a given party or a leader acquires power, ideology is called upon to reinforce and sustain the principles and mindsets needed by the party or leader (Prtenjača, 2018, p. 18).

Eagleton explains the process in which the concept of ideology is implemented by dominant powers to subdue the masses and thus ensure their continuous status of supremacy over them:

A dominant power may legitimate itself by promoting beliefs and values congenial to it; naturalizing and universalizing such beliefs so as to render them self-evident and apparently inevitable; denigrating ideas which might challenge it; excluding rival forms of thought, perhaps by some unspoken but systematic logic; and obscuring social reality in ways convenient to itself (Eagleton, 1991, pp. 5-6).

Susan's interior ministries and agencies are examples of the mechanisms of physical nature implemented to reinforce and sustain his totalitarian framework. These agencies are created to oppress and suppress people so they can be moulded to suite the ruling party's demands. (Prtenjača, 2018, p.12)

From the first illustration in *VfV*, we can observe Moore's concocted idea of the dualism between the leader and the party as a singular body and mind which must work coherently to ensure maximum efficiency and thus sustain the hierarchy of power. Moore introduces Chancellor Susan's organisational apparatus in Book 1: *Europe After the Reign*, starting with law enforcement officers known as "the Fingermen" (Moore and Lloyd, 2005, 11) who are clashing with the novel's protagonist, V, who is described as "the king of twentieth century, the boogeyman, the villain, the black sheep of the family" (Moore & Lloyd, 2005, p. 13).

The utopian like and calm totality enjoyed thus far in the United Kingdom is now endangered, and the cogs of the large ministries and agencies mechanisms start to turn in full capacity as all agencies begin to generate their reports on the perpetrator under the initiative and orders of "the Head" and the party's leader, Chancellor Adam Susan, who is depicted overseeing the situation from his control room.

Moore keeps introducing the other parts of the ministries naming them symbolically after the human body parts. "Mr. Heyer speaks for the Eye" which is a surveillance agency that was able to record footage that reveals the masked criminal planting and detonating a bomb. Following this, "Mr. Etheridge now speaks for the Ear", an eavesdropping agency which mainly deals with phone surveillance and is closely connected to "Mr. Finch and the Nose", a regular detective-police force which seems to find no plausible evidence except for "the sophisticated device which caused the explosion", "a certainly hand-made one, and thus untraceable" (Moore & Lloyd, 2005, p. 15). The Head now turns to "Mr. Almond" (Moore G. , 2002, p. 15) whose Fingermen were previously attacked by V, leaving them ashamed and denigrating their position

among "The Finger" (Moore & Lloyd, 2005, p. 16), the party's secret police now depicted blatantly useless.

The government of the Norsefire regime from its head to its limbs controls its citizens using the oldest tricks in the book. They mainly use tactics like fear, intimidation, and propaganda. The Norsefire regime has no issue on using brute force to rough the citizens up if needs be for the sake of sustaining its position and resilience. Therefore, citizens became fearful of the government, but in the same time, this illustrates the amount of fear of internal corruption and loss of control over society the party has (Sage, 2017, pp. 8-9). It also shows how venerable their grip over their population is.

Among the main tools used by these agencies in order to exert their control is physical and psychological torture. It is used to coerce non-believers and non-conformist into accepting the truths nurtured and imposed by the party and conform to its ideological code. 'Resettlement camps' are correctional facilities where torture and coercion took place; it is the place they used to enforce 'order', but it was also the place where 'chaos' and anarchy will originate.

The infamous Larkhill resettlement camp is where the story of our protagonist V began. It was a theatre for experimental military trials on those who were considered expendables simply because they were 'undesirable' by the standards of the new regime back then. Little is known about V except the fact that he was one of these who were deemed undesirable by the regime. His crime could range from being his race, religion, sexuality, political orientation, or any other element of himself that associated him with minority groups and dissidents.

What we know though is that he was the only survivor of Larkhill experimentation camp which he set on fire to initiate and cover his escape. It was his strong vengeful desire that empowered him to take action against the regime. Once again, the human condition is what initiates the spiral downfall of any structure of power hierarchy and order. It was pain and

suffering that gave him his resilience and set him on the path of becoming more than just a man and a victim of the oppressive regime. It was the same for the innocent young girl Evey whom V tortured so he can set her free; it was the same for Dolores and the other hosts and their cornerstones; suffering so it seems is the magical word for it.

V is the embodiment of the dystopian protagonist. He is a non-conformist who was able to break from the mind control scheme; he is an individual who was able to break the shackles of repression and oppression; he is also an opposing power structure that would stop at nothing to fulfil its self-interest personal agenda. He is a freedom fighter and a terrorist, fanatic, or anarchist if needs be. He is an antihero, a wearing mask villain who is more relatable because he makes more sense when compare to our contemporary reality.

V is the embodiment of the polarization of opinions anti-heroes and sometimes even villains can generate. He is a victim and a freedom fighter, yet he is driven by hate and vengeance. he wanted to be more than just 'flesh', he wanted to be an idea, and yet he created it around a mask that celebrates an infamous terrorist named Guy Fawkes who tried to blow up the parliament and assassinate the king on the fifth of November 1605 as part of what became known as the gunpowder plot. Like all the protagonists before him, whether you agree them or not, they make their own decisions which sometimes can irritate the audience somehow.

The postmodern era is indeed one of the most interesting eras for literature. New genres, critical literary theories and approaches, medium narratives, and definitely a new type of readers or art and literature 'consumers' to be more precise. We are living in a time where literature is adhering more and more towards consumerism, and this environment indeed created very peculiar situations. Petitions were launched by fans to edit, cancel, or redo the endings of TV shows and series. Despite being mostly unsuccessful, this odd situation demonstrates how the new generation of content consumers are not so passive when it comes to their consumption of art and literature. We are witnessing the rise of new genre which is known as the fanfiction

where fans can make their own endings and choices for their favourite protagonists and villains. Now you can have the canon ending for example or multiple and alternative fanfiction endings that sometimes can be even more interesting than the canon.

The barrier between content creators and their consumers has never been thinner, and because in a world of consumerism where the customer is always right, the old traditional narrative mediums like the novel and movies can be a bit rigid and lacking when it comes to satisfying today's literature consumers. It is true that these narratives give us a range of unique emotions and philosophical questions through tragedy, violence, gore, and death which we sometimes find unmerited to be casted upon our favourite characters, but the audience wants to have more of an active role in weaving the events and character fates of their beloved literature.

This is not a call for such an outcome, it is rather an exploration of a new phenomenon that is creating new genres like fanfiction and increasing the popularity of other mediums like video gaming which is perhaps the most consumer-friendly among these narrative mediums as it follows the fan feedback and offer huge range of character customizations, multiple plot arcs, diverse visually pleasing settings, and most importantly multiple endings and decision branching so one can weave his/her own, to some extent, personal narrative.

V.3. Bioshock: Become Your Protagonist

Nowadays, video games formulate the peak of popular culture due to its fantastic highly imaginative worlds, level of entertainment, and most importantly its unmatched ability to immerse their audience through involving them in the narrative creation process. In video games based on storytelling, the passive reader (novels and comics) and viewer (films and series), becomes the active or rather interactive player who, to some degree, controls the actions, decisions, and fates of the protagonist(s) and perhaps even the other characters of the narrative too.

These elements indeed prove to be the most desired today especially by young adults which is the demographic group generally discussed in this research. Visibly, video gaming industry has rapidly grown tremendously in the past couple of decades from being a niche business pursuit with very limited clientele and generally targeting children to a multibillion-dollar enterprise, and a heavy hitter in the viciously competitive contemporary media and entertainment industry.

According to Statista, video gaming is huge and its growth is not slowing down any time soon. With over three billion gamers globally today, this number is expected to reach over 3.5 in the coming few years. (2023). A 2022 survey shows that there is an estimate of 156 million video gamers in the US and expected to reach 178 million by 2027; that is roughly half of the US population (Clement, 2023). The Entertainment Software Association indicates that 65% of American adults play video games on at least one platform whether it is a laptop computer, smartphone, video game console etc. (ESA, 2019). Global revenue of selected entertainment sectors shows that video gaming is the most profitable and lucrative entertainment industry worldwide. It was worth 192.7 billion dollars in 2021 which far exceeds the 120.1 billion in books both printed and digital, 79.7 in movie box office takings, and 25.9 billion for music (Richter, 2022)

Of course, these statistics do not reflect as much the artistic depth and quality of video gaming, but rather the amount of power and influence this new narrative medium is attaining lately. In most cases, surely video games do not exist in par or the same league as films and literature. However, the number of ‘anomalies’ or exceptions is rising significantly along the past two decades. The attempt of implementing the story into video games has been long part of the agenda for game studios. The result of story integration in gameplay varies greatly, but the recent great technological improvement and ever-increasing budget and working staff proved beneficial as more and more high-quality stories are narrated through breath taking

games are becoming the standard in the industry. Besides, we have to take into consideration that similar to the case of the novel, motion pictures, and comics quality is a spectrum which ranges from very bad, shallow, or run of the mill degree to master pieces and critically acclaimed avant-gardist classics.

Multi-hundred-million-dollar budgets and multi-year production period have taken video gaming to the next level. Today's "AAA" blockbuster games produced, published, and marketed by teams that can exceed 300 persons are taking the world by storm. Gaming branches of companies like Sony and Microsoft became mega-corporations that rival some countries' economies in value. Blockbuster titles like *Assassins Creed*, *Bioshock*, *God of War*, *Grand Theft Auto IV*, *Mass Effect*, *Call of Duty* just to name a few are critically acclaimed works of art that indeed took matters to the next level.

The huge leaps video games industry took are demarcated by milestones of games that introduced for the first-time innovative gameplay style, story, gaming genre, graphics, etc. *Bioshock* 2007 title by Irrational Games studios is among the most influential releases especially for the single player story driven first person shooter genre.

Bioshock is without question a triple-A game, developed by a great studio with a ludicrous budget, backed and distributed by a major publisher, and released on high-end gaming hardware. The game created great hype even before its release, and it sold over 4 million copies according to the latest statistics of 2010, with an overall 41 million copies sold of the trilogy³⁴ by November 2022 which makes it one of the most successful franchises in the gaming industry (T2 Company Overview, 2022)

³⁴ There are two other releases under the same title: *Bioshock 2* (2010) and *Bioshock Infinity* (2013)

The game is set in 1960s, and the player takes the role and perspective of a protagonist under the name of Jack who finds himself stranded after his plane crashed in the middle of the Atlantic Ocean. Our hero finds a lighthouse in the middle of nowhere in which he discovers a small submarine that took him to a crumbling, leaking, and enigmatic metropolis city in the dark depths of the Atlantic called Rapture. It turns out that the city is founded and built in 1940s by an eccentric industrial titan goes by the name Andrew Ryan.

The city is intended to be populated by the greatest minds and artists of the time. It was a sanctuary away from the limitations of traditional city and political ideologies. Simply put, Rapture was built to be a utopia where great and monumental achievements of humanity are exhibited within its museums, theatres, libraries, laboratories, etc. to evoke and inspire the spirit of innovation that knows no bounds nor limits in contrast to the rest of the world ruled under Capitalism and Communism ideologies back then. However, when Jack arrives two decades later, he finds it in ruin and filled with mutated and genetically altered violent humans addicted to ADAM³⁵.

Everything about Rapture is structured and moulded in a way highlighting the binary opposition of utopia and dystopia. The term Rapture is a biblical one which consists of an end-time event where all Christians who are alive, along with those believers who were resurrected, will rise "in the clouds, to meet the Lord in the air" (Benware, 2006, p. 208) and yet, the city is situated not in the heavens but deep within the darkness of the Atlantic. The city is a utopian ideal but Jack finds it in its late process of ruination getting closer and closer to its dystopian version. The inevitable effect of entropy on utopia that we have discussed in chapter two is strongly depicted in the city. Science, industry, and art are all manifestations of the high level

³⁵ **ADAM** is a biochemical substance that has the ability to rewrite genetic material, allowing the user to alter their body, their genetic makeup and their natural abilities without any direct limits whatsoever aside from their imagination.

of order Rapture achieved once before. Leakage, horrifically mutated humans, insane people, and civil war are the manifestations of the high level of disorder the city has reached. Institutions that used to be the epitome of order and our triumph over entropy became the instigators of chaos and disorder. Places such as the hospital that has become a morgue, luxurious which used to be buzzing with life and celebration now inhabited by corpses, and a theatre where they used to be entertained now is a torture chamber are designed brilliantly as central zones of the narrative the player has to go through in order to advance the campaign (Yeates, 2015, p. 67).

The entropically senile last days of the city is juxtaposed masterfully with its vibrant, hopeful, and vigorous beginnings. The overlapping of these timeframes is done in a seamless way through the use of ghostly apparitions and old audio recordings. These flashbacks are a side effect of taking ADAM genetic material: “Ryan tells me it’s a side effect of this plasmid business. One poor sod’s memories getting passed onto another through genetic sampling. Leaks. Lunatics. Rebellion. And now bleeding ghosts” (Boston, 2007)

Over the course of the game, jack is thrust into Rapture where he finds himself navigating the dark and shadowy, retro-futuristic halls, fending off enemies like splicers and big daddies and deciding whether to spare or harvest the little sisters for more ADAM. It is a creepy isolated paranoia inspiring place that you have to experience by yourself because words cannot do it justice.

The only friendly voice since the beginning is Atlas’s whom jack would eventually trust fully over the course of the game. In the first act, jack is guided via radio by Atlas, and he must fight through enemies in hopes of rescuing Atlas’s family as a part of a bargain they struck to escape the city. In the second act, hopes for escaping is squashed by Andrew Ryan murdering Atlas’s family and jack turns into an agent of revenge until an expected twist of events reveals that Atlas is in fact Ryan’s arch-rival Frank Fontaine. The player suddenly finds himself realizing that all what seemed to be his decisions are but orders taken from Atlas after saying

the key trivial phrase “Would you kindly”. Jack and by extension, the player feels betrayed and deprived of independent thought and decision when he meets his target Andrew Ryan:

Andrew Ryan: The assassin has overcome my final defense, and now he’s come to murder me in the end, what separates a man from a slave? Money, Power? No. A man chooses. A slave obeys. You think you have memories.

Andrew Ryan: A farm. A family. An airplane. A crash. And then this place. Was there really a family? Did that airplane crash, or was it hijacked? Forced down. Forced down by something less than a man. Something bred to sleepwalk through life until they are activated by a simple phrase, spoken by their kindly master. Was a man sent to kill? Or a slave? A man chooses, a slave obeys. Come in. (Jack enters the opened door.)

Andrew Ryan: Slop, would you kindly? Would you kindly. Powerful phrase. Familiar phrase? Sit, would you kindly. Stand, would you kindly. Run. Stop! Turn. A man chooses. A slave obeys. Kill. A man chooses. A slave obeys. OBEY. (Jack executes all Ryan’s commands, then hammers him with a golf club at his own request.) (Boston, 2007)

Flashbacks start to hit Jack for every time he heard the trigger phrase and the acts he committed after. This scene was the most iconic moment in *Bioshock* and the gaming sphere as a whole back then. It is the key moment when Jack realises that he is the two years old illegitimate son of Ryan who is genetically modified by Fontaine for the purpose of making him unnaturally ‘grow’ and mentally compliant to orders following trigger phrases like “would you kindly”.

The final suicidal act of defiance by Ryan using the trigger phrase ordering Jack to kill him marked the beginning of the third and final act of the game. The player must now overcome Fontaine’s mind control and kill him in order to free himself and escape Rapture. Finally, the

game ends with a short epilogue of one of three possible endings for Jack depending on the way the player decided to treat the little sisters.

Unsurprisingly, many fans and scholars alike discuss *Bioshock* as an integral addition to the dystopian tradition of creating fictional communities and states as a satire or any given form of political critique. The game includes a clever mind controlling scheme but lacks the act of suppression of emotions and imagination and individuality is actually celebrated on the expense of the larger social unit unlike what we have seen before in the previous dystopian worlds. Nevertheless, even this extreme side of the equation proved to be destructive to society as much as repression and collectivism. The city of Rapture is a world masterfully crafted to overlap the beginnings of the utopian ideal and the endings of the dystopian real; it is basically the prototype that demonstrates the utopian society eventually succumbing to entropy and falls into chaos and disorder.

Conclusion:

Films, series, comics, and videogaming are cultural forms that are going through the process of legitimization albeit with different degrees. However, the legitimization of popular culture as art is not something out of the ordinary or completely new as the film, popular music, dancing, comic books, and television are already shedding the old basic skin of being frivolous or dangerous low culture entertainment. They have become, at least certain forms and works, as culturally and aesthetically important as the already established forms.

Within this chapter, an attempt to explore and analyse some of the dystopian elements of Works like *The Matrix*, *Westworld*, *V for Vendetta*, and *Bioshock* has illustrated the amount of quality, depth, and innovation these narrative mediums can offer. By no means, the attempted analysis of these works is sufficient or adequately because simply we have scratched only surface. This chapter is rather an endeavour just to probe and argue their legitimacy.

These dystopian incarnations set before us a very strong case for those narrative forms. Their cultural status is already changing and the handling of their newest form video games in this regard is getting more and more serious by the year. Even though the number of critical studies on those mediums is relatively less than those done the novel, they have become too big to keep ignoring them any longer. The average student of literature today spends so much more time on bench-watching films and shows, playing games, and reading comics than on reading novels. Through this chapter, we have demonstrated the potential of these narrative forms and their seminal works as legitimate case studies for literary criticism courses. Lectures of literature have been always the arena of free association, boundless analysis, and philosophical synthesis, and it is time to extend these activities to something other than the text-based literature only.

CHAPTER FOUR

Memetic reading of the Dystopian Society

Introduction

As the same as genes are transmitted through the sex cells, culture and morality is transmitted through memes. Cultural evolution might be perceived the same as the biological evolution where the genes are those memes that reside in the artifacts “produced by the culture and the minds of individuals participating in it.” (Reesor, 2008, p. 14), Therefore, any given narrative is but an artifact, and a meme that represents a mental picture of a given generation and their culture; it is also a source of inspiration and seeds for the new narratives of the coming generations.

The dystopian genre has a rich history that traces back to the early 20th century. Today, it has become a dominant cultural force with a quite significant following and influence. Its key characteristics or memes have been developing and branching out through history. Each of these narratives has its unique setting, structure, and utopian idealism which contributed to the diversity of this genre. However, in their most basic and fundamental level, all these narratives can be perceived as stemming out from the same primordial clash between order and chaos.

Through this chapter, an attempt to revisit the dystopian societies within these narratives will be set forward for the aim of better comprehension of the dynamics these hierarchical structures go through. This approach will be mainly centred on liquid memetics where we will implement universal concepts and elements from both academic branches of the sciences and humanities in order to analyse and pinpoint the commonalities between these dystopian societies, so we can establish, to some extent, a genealogy of memeplexes that records the evolution of such societies.

Accordingly, these societies will be approached as attempts to reach a utopian existence, the Platonian Kallipolis in particular. Plato's wisdom, honour, and money lovers will be the archetypes for our contemporary specialized subspecies of Homo-Evolutis, Ludens, and Dolor. Adding to the mix would be the Nietzschean will to power for the sake of exploring the destructive and chaotic human condition that play a great role in the dynamics of power and its struggle among these subspecies.

VI. Memetic reading of the Dystopian Society

The term "memetic reading" refers to this research's approach to literary analysis where we focus on the ways in which a novel or other literary works spread and interact with culture. As we have seen in the previous chapters, this approach emphasizes the ways in which works of literature can become a "meme" or a unit of cultural information that is transmitted from one person to another and hence from one work to another, and how these memes can change and evolve over time. A memetic reading of a given piece of art can also explore how it could be adapted into perhaps other forms of media, such as film or television shows, or how it has influenced other works of literature. It might be also used to analyse themes and concepts and discuss them as a part of a broader cultural conversation.

Even though memetic reading of the dystopian novel and society has already been the focal point from the start, next to establishing the approach itself of course, this chapter will represent the amalgamation of these efforts but within a different model. Unlike previous chapters in which we have approached dystopian societies separately, here the analysis and reading of these societies will be done in a form of a holistic breakdown, so we can establish meme-lines and explore the relationships and interactions between these different dystopian societies.

Dystopia is one of the major genres of literature today which means dozens and dozens of notable works are published per year let alone since the year this research began. It will be academically futile to attempt encompassing all these works in addition to the classics in one single holistic study. What is meant by holistic here is rather the rounding-up of few seminal works that are representative when it comes to the focal points of this research and demonstrative to perhaps be able to deliver an attempt to display liquid memetics in action albeit the still existing shortcomings, bugs, and rough edges, which any prototype project or product in its Beta version has, that need to be ironed out.

The selection process has been done on the basis of the newness of the work, its relevance, and representativeness when it comes to the concepts of Homo Evolutis, Dolor, and Ludens. The works chosen for this endeavour are *Brave New World*, *Cloud Atlas*, and *Ready Player One* which are new (except for the first one), representative, and relevant. Written by Aldous Huxley and first published in 1932, *Brave New World* is as old as the genre itself but without a doubt an iconic dystopia and a landmark novel. Albeit being exhaustively worked upon, it goes without saying that any holistic approach to dystopia has to go through it one way or another, and hence, any attempt of choice justification is already obsolete and redundant.

Huxley envisioned a future society where people are conditioned from birth to conform to a rigid caste system, and where personal freedoms and individuality are suppressed in favour of social stability and efficiency. With its exploration of themes such as the role of science and technology in society, the nature of human identity, and the dangers of unchecked government control, *Brave New World* continues to be relevant and relatively ‘new’ even today, and this why it will be the dystopian archetype to follow in this analysis.

As for *Cloud Atlas*, An Orison of Sonmi-451 narrative in my humble opinion is one of the most impactful and thought-provoking dystopian worlds that highlights the ugliness of Consumerism and the absurdity of consumers’ lives which is one of the main focal points in

this chapter. Finally, Ready Player One is selected because one of its main themes is the element of play that coincides with the targeted concept of homo-Luden.

VI.1. The Dystopian Homo Genus

According to the western thought, the emergence of modern humans, or *Homo sapiens*, is thought to have occurred between 200,000 and 300,000 years ago in Africa. Modern humans are characterized by their large brain sizes, advanced cognitive abilities, and the ability to create complex societies and cultures. The *Homo* genus is a group that includes these modern humans, as well as several extinct species of early humans who lived millions of years ago. The earliest members of the *Homo* genus, such as *Homo habilis*, lived between approximately 2.4 and 1.5 million years ago and were characterized by relatively small brain sizes and more ape-like body proportions. Later members of the *Homo* genus, such as *Homo erectus* and *Homo neanderthalensis*, had larger brain sizes and more advanced tool-making abilities (Rightmine, 2023).

Modern humans eventually spread throughout the world, replacing earlier hominids such as the Neanderthals and becoming the only surviving members of the *Homo* genus. The dystopian homo genus, however, is by no means a new taxonomy or a methodology to classify and categorize these different ‘humans’ as the matter is already under great scrutiny and debate by their own experts and even beyond the scope of this research in the first place. It is rather, and for the sake of consistency of biomimicry between biology and memetics, the foundational background for our *homo sapiens* subspeciation forthcoming proposal.

The subspecies categorization of *Homo Evolutis*, *Dolor*, and *Luden* is a metaphorical pitch that is proposed to delineate the power hierarchies and social classes within the dystopian society. This classification will be the scaffolding that will hold the holistic analysis of the three

suggested dystopian societies together. It will also assist us in identifying possible meme-lines that are proliferating through culture and the dystopian genre through time.

VI.1.1 Homo-Evolutis in Brave New World

According to the scientific consensus, it is believed that similar to other living organisms, humans have gone through drastic changes that shaped and still continue to reshape their physiology and behaviour as well. However, it is commonly assumed that humans as a species have evolved very little biologically in the past couple of millennia despite the fact that new revolutionary discoveries of the genetic information from populations around the globe showed that the pace of human evolution increased with the advent of agriculture and cities.

Darwinian evolutionists believe that humans also evolve through adaptation to the environment. When an environment changes, a characteristic can suddenly shift from being an advantage into a disadvantage, and vice versa. The same process would occur in the human society but differently as it would not alter the reproductive potential and survivability of the human species anymore but rather alter the social hierarchy. Just like the physical aspects which used to be the key to survival and hence was greatly advantageous became second to the cognitive aspects in our modern age in which such aspects proved to be more advantageous. Even though evolutionary laws like survival to the fittest and natural selection are not notable factors anymore, humans keep evolving ‘memetically’ as our environment is rapidly changing. Thus, a dynamic element of evolution which is adaptation to the environment is still very much around.

Steve Jones of University College London has argued that human evolution has essentially ceased. For him, humans are no longer evolving physically and that technology has put an end to the brutal logic of natural selection and that evolution is now purely cultural (Ward, 2012). As a part of the Royal Society of Edinburgh debate of 2002 entitled “Is Evolution

Over?” he argued that: “Things have simply stopped getting better, or worse, for our species. If you want to know what Utopia is like, just look around—this is it.” (Ward, 2012). For Jones, individuals in the developed world have the opportunity to reach reproductive age where the poor and rich have an equal chance of having children. Adding to facts like our continuous mutation that improves our resistance to diseases, both new and inherited, is what will ensure our survival. Since we no longer live in the nature, laws such as survival to the fittest and the natural selection can no longer influence the path of human evolution. Nowadays, the deciding factor in whether people live or die is not our genetic inheritance but our culture. In short, evolution may now be memetic—involving ideas—rather than genetic (Ward, 2012)

Juan Enriquez and Steve Gullans, two famous science authors, researchers, and entrepreneurs, believe that we have not ceased evolving. We are simply on the verge of a new era, the era of the Homo-Evolutis. A hominid who takes direct and deliberate control over the evolution of his species and other species as well. According to Enriquez, the newfound ability in the field of genomics, which is to read and write the code of life (the genome), will transform us from “a hominid that is conscious of its environment into one that drastically shapes its own evolution.” (Enriquez, 2011). He further indulged that through this breakthrough, we will be able to engineer our environment and ourselves which represents the final step in moving beyond the constraints of Darwinian evolution. The result, he says, may be an entirely new species.

Enriquez argues that Homo Evolutis represents a new phase in human evolution, one in which we are no longer bound by the limitations of our biology. He believes that humans are becoming increasingly capable of controlling their own evolution through technologies such as gene editing, biotechnology, and artificial intelligence. One of the key tenets of Enriquez's concept of Homo Evolutis is that humans are no longer subject to the forces of natural selection, as we have the ability to select and modify our own genetic traits. This means that we can

potentially eliminate genetic diseases and other undesirable traits, while also enhancing the desirable ones such as intelligence, strength, and longevity. (Enriquez & Gullans, 2011)

He continues to state that the process of human enhancement is already underway, as evidenced by the growing popularity of gene editing, cybernetics, and other forms of biotechnology. He points to the development of technologies such as CRISPR, which allows scientists to edit the DNA of living organisms with unprecedented precision, as evidence of the potential for human evolution to be guided by human beings themselves.

Currently, the concept of Homo Evolutis is still largely speculative, and the ethical and practical implications of such a transformation remain unclear. It is certain, however, that technology will continue to shape our lives and our evolution, and the debate around the future of humanity will likely continue for many years to come. The hypothetically dystopian creations, albeit their extremism, are of the essence because they represent our modern hunt magic; they represent some kind of simulations that would provide us with few answers to the hard questions we face today as a species.

One could only awe at the idea of being smarter, stronger, quicker, and generally better but in the same time be reminded of the 1932 novel that prophesized the same outcome. Huxley's dystopian novel, *Brave New World* imprinted the readers with a bleak vision of a futuristic society made entirely of completely engineered and modified humans. These massively 'produced humans' are categorized into castes with different traits that suit their expected status within the society. The Alphas were the cream of the crop; they were smart, tall, and good-looking to fit their high status unlike the Epsilons who were dumb, short, and ugly to make them fit in their low status lives and jobs.

The year is 632 A.F (After Ford), and the world is divided into World States which are based on the motto "community, identity, and stability". As hinted from the date, the divine

deity of this world is Henry Ford, his model T, and his mass production assembly line that is used not only in manufacturing products but also human beings. The Central London “Hatchery and Conditioning Centre” is the place where our narrative begins. It is also the place where the process of fertilising, developing, and conditioning embryos and babies take place.

Our tale begins with the Director of Hatcheries and Conditioning (D.H.C.) joyfully guiding a group of school children through a tour around the centre. Eager to learn, the children crowd around him with pencils jotting furiously as the director goes through a ritual like passionate explanation of the fertilizing room. After been fertilized, the ova are moved into incubators and bottled up to be grown in a healthy and normal way into the highest tiers of society, the Alphas and Betas (Huxley, 1946, p. 4).

The procedure does not end here with this eugenic hatching procedure of the future highborn. While these designated Alphas and Betas eggs are left to develop normally as embryos, the rest goes through the Bokanovsky Process because no society can sustain a class of exclusive nobility without a working class supporting them. This process is based on altering one fertilized egg to produce from 8 to 96 identical embryos. Due to the fact that individualism and personal differences are greatly undesirable in this world, these hatcheries that are based on Ford’s assembly line in addition to Bokanovsky’s Process are the beating heart of the world states because they eliminate the aforementioned traits and guarantee conformity.

For the sake of producing a steady supply of craftsmen and laborers, the hatchery follows this dysgenic ‘Bokanovskification’ process in which these embryos are exposed to techniques of development arrests to inhibit their natural growth, and this is how they are able to create the different castes with varying intelligence, physical abilities, and thus social status.

Babies from the medium and lower castes are all exposed to the process. The Gammas are below Alphas and Betas and represent the middle class. During the process, a small doze of

alcohol is injected into the blood surrogate to thwart them from developing into anything more than the designated needs of their class. No one would want a Gamma to surpass a member of a better class, after all. Deltas go through the same treatment, but they would also be under a bit of oxygen restriction which would further damage the potential of the surrogate. Finally, Epsilon bottles are exposed with the highest dose of alcohol and obtain the lowest concentration of oxygen possible all to stunt their intelligence. They are produced to be the ideal illiterate and ignorant hard worker and conditioned to prefer it this way too (Dontre, 2021, p. 35).

Actually, every cast is conditioned to cherish and celebrate their 'designated' lot in life. They are exposed to Pavlovian conditioning exercises to create specific conditional reflexes. Some babies are exposed, for instance, to early conditioning in which they are shown books and flowers; the process is accompanied with electric shocks and loud sirens so that these babies will learn to associate books and nature with negative feelings of pain and discomfort. Thus, the citizens will have little to no desire to read and get rebellious ideas that would de-condition one of their reflexes or crave nature and recreation so they will always stay in the cities and keep the cycle of production working and sustain the economic and social welfare (Huxley, 1946, pp. 23-24).

Babies are also exposed to hypnopaedia as part of their subconscious conditioning. They will listen to messages like this several times per week during their sleeping:

And Delta Children wear khaki. Oh no, I don't want to play with Delta children. And Epsilons are still worse. They're too stupid to be able to read or write. Besides they wear black, which is such a beastly colour. I'm so glad I'm a Beta." 'Alpha children wear grey. They work much harder than we do, because they're so frightfully clever. I'm really awfully glad I'm a Beta, because I don't work so hard. And then we are much better than the Gammas and Deltas. Gammas are stupid. They all wear green, and Delta children

wear khaki. Oh no, I don't want to play with Delta children. And Epsilons are still worse.

They're too stupid to be able..." (Huxley, 1946, p. 31)

The world states seem to be highly efficient and each member of this dystopian society knows his/her place. Thanks to the previously mentioned processes, each citizen is appropriately 'engineered' and conditioned to be more than happy to occupy his/her specific designated lot in life. All except for the world controllers perhaps.

The world is presided by ten World Controllers who rule over the World States making sure that all goes well within their jurisdictions. Although it is not explicitly mentioned in the novel that Mustapha Mond, who is the world controller we are exposed to, is an Alpha or not, given his high position, it is more than likely that he was born into the Alpha caste. Nevertheless, Mond is still quite different from his Alpha peers in many facets. First, the amount of power and influence he exercises even over the Alphas; second, the depth of knowledge and education he acquired which makes him aware of the censored pre-*Brave New World* history, philosophy, religion, science, society, etc. contemplating all the problematic issues and questions that plague humanity and which the other Alphas are spared from. Finally, unlike most Alphas, he is somewhat disillusioned with the society he governs because of his awareness of the flaws and limitations of this lifestyle.

Mustapha which is the Arabic term for the chosen, and Mond whether it is based on the German term for 'protection guardianship' (Ancestry, 2022) or an homage to the British renown industrialist Alfred Mond, are traits which all denote the character of this world controller. He is the chosen industrialist and protector guardian of this utopian project. Mustapha Mond is the embodiment of Homo-Evolutis meme that is being manifested though its own negative allele because evolutionary measures used by them are not beneficial for humans; they are actually on their expense or so it seems.

Mond recounts the weapons of mass destruction used in the Nine Years War, the Great Economic Collapse, and the horrors in their aftermath. He also recalls himself contemplated this hard decision of choosing between utter control and destruction. Eventually, Mond would pick control because it is the “Primal and ultimate need” (Huxley, 1946, p. 49) for stability. It is those problems of the pre-Fordian world, he explains, like poverty, wars, old age, religion, giving birth, love, privacy, sickness, monogamy, etc. that were the downfall of humanity. As a Homo-Evolutis, their choices as world controllers were made to overcome these obstacles by any means possible. The Hatcheries, Pavlovian Conditioning, censorship, and Soma which we will discuss later are few of the implemented measures that ensure stability, happiness, and the ideal life for citizens. Unfortunately, the results are repulsive by our time’s standards as most of the society live in ignorance, living by the promiscuous motto of “Everyone belongs to everyone else” that celebrated sexual relationships and tabooed any sort of concepts of exclusivity and emotional attachment. It is as if these Homo-Evolutis are attempting to abolish what they can of the human condition and regulate what they cannot.

To some extent, this dystopian society is as stable as they come. It is a utopia like Huxley referred to it from the start. It is a place where everyone is satisfied with his social status, a place of no orphans, wars, sickness, old age, conflicts, and even the drugs are legal and has no seriously bad side effects. It is the place where entropy is defeated, relatively speaking. Instead of fighting it, Mond representing the Homo-Evolutis devised an elaborate assembly of a society where entropy actually is respected.

If you are upset, angry, or depressed, if you feel anything at all take a soma because "a gramme is always better than a damn" (Huxley, 1946, p. 65). A doze of soma makes you forget about being emotional; it makes you stable again so that you continue with your work and consumption. You should always dispose of things which are broken or unwanted because

“ending is better than mending” (Huxley, 1946, p. 58). You are not allowed to grow old or even look like it:

We preserve them from diseases. We keep their internal secretions artificially balanced at a youthful equilibrium. We don't permit their magnesium calcium ratio to fall below what it was at thirty. We give them transfusion of young blood. We keep their metabolism permanently stimulated. So, of course, they don't look like that. Partly," he added, "because most of them die long before they reach this old creature's age. Youth almost unimpaired till sixty, and then, crack! the end." (Huxley, 1946, p. 129)

Being old is unproductive and drastic reminder of the ending death, so it is economically and socially prohibited. The collective interest is king but individualism within the guidelines of the community is your way of life, and stability is what would make you happy the most because the planetary motto “Community, Identity, Stability” (1) is the backbone of the world states and must be upheld by everyone.

These mottoes, codes, and laws are here to thwart the human condition, eliminate the element of outliers, and to keep the efficiency of economy at its peak level. Entropy is inevitably everywhere, but its effect is lessened significantly through creating android like humans who are engineered, conditioned, always drugged, and uncumbered by feelings, children, or family. They have become the perfect machine that works tirelessly and nonstop until it breaks down precisely at 60.

Homo-Evolutis and his means of altercation and control are a combination of cultural concepts that form a memplex. It is undoubtedly, that Huxley's perception of the Homo-Evolutis is probably one of the first dystopian depictions of this subspecies according to the classification of the main stream literary field. However, if we are to perceive both utopian and dystopian narrative all the same like we have done previously in chapter two, this memplex

could be much older. One could refer back to More's Utopia with its founder king Utopos who exercised his control and was able to alter his people's way of thinking albeit with less efficiency and with more traditional means.

We can go even earlier and contemplate Plato's *Republic* and the concept of the philosopher king. According to Bouabdali "Mustapha Mond the World State ruler of Brave New World's World State projects a Platonic totalitarianism by being the epitome of Plato's Philosopher King." (2017, p.66). Because of his transcendence, education, and reliance on reason as the driving force behind his decision making, the philosopher king knows the true form of matters and is given the green light by Plato to do whatever necessary to lead society toward stability. Soma on the other hand as part of the memeplex was also drawn in parallel to Plato's concept of the noble lie. (Bouabdelli, 2017, p. 66)

Unlike money lovers and honour seekers who are steered toward the gratification of their personal materialistic tendencies, the philosopher king does not aim at egoistic ends and only acts on the basis of what serves the overall interest of the city state. Accordingly, he can use this noble lie which Plato perceives as "useful like a drug" (Bouabdelli, 2017, p. 66).

In the grand scheme of things, Homo-Evolutis seems to be an ancient concept rather than a 21st innovation. Enriquez's notion of the man who controls his own evolution through the biological means of genetic manipulation and sequencing for instance is quite accurate but is not quite representative of the humankind journey of evolution as a species due to the fact that we have been altering our own development memetically by means of philosophy, culture, and ideology for quite some time now. The difference between Enriquez' notion and general Utopos and the philosopher king for instance is in the efficiency, methods and techniques implemented, and the type of ethics and morality they contemplate. Thus, Homo-Evolutis as a memeplex is constantly evolving in parallel with the human civilization, culture, and technology.

The philosopher king is by no means the first depiction of Homo-Evolutis, but it is one of the most prominent and carefully contemplated ones, and it proved to be influential until this very day. Literature has been always the mirror that reflects society and works of art like *Republic*, *Utopia*, and *Brave New World* which are important milestones that help us draw the evolutionary meme-lines for our thoughts, traditions, and heritage as a species.

The history of Homo-Evolutis can even predate Plato's philosopher king. It can be associated to the early shamans, warrior kings, and intelligent and resourceful elite throughout history. Enriquez's notion of the man on the verge of becoming a new species is the amalgamation of millennia of continuous fine-tuning and try and error in a never-ending cycle of rise and decline. Analysing the main elements of this evolution could be very helpful in forming some kind of a genealogy of the dystopian thought as a whole.

Contemporary works such as the ones we have dealt with in the previous chapters do highlight this continuous evolution of Homo-Evolutis. *The Matrix*, for instance, is depicting humanity as a tool for sentient machines that we have created to be our tool. The most powerful entity in the Matrix franchise, the Architect, is the embodiment of Homo-Evolutis and one of its evolved variants down the meme-line.

Compared to its old counterparts, the Architect is also depicted as a highly intelligent and sophisticated being who is responsible for designing and creating the Matrix, the simulated reality in which the human population is trapped. The Architect explains to Neo that he is not the first "One," a person who has the ability to manipulate the Matrix and defeat its agents, but rather one in a long line of them. The Architect goes on to reveal that the purpose of the Matrix is to keep the human population in a state of contentment and ignorance, while their bodies are used as a source of energy to power the machines that rule over them. As we can deduce, the 'One', The Matrix, and even The Oracle are the Architect's noble lies that he uses in order to sustain the stability of his power hierarchy.

One of the most intriguing aspects of the Architect's character is his calm and composed demeanour. Despite the fact that he is essentially the mastermind behind the enslavement of humanity, he speaks in a measured and almost clinical tone just like Mond with his scientific reasoning and the philosopher king and his implementation of reason. Perhaps this conduct can come across as malice or sadistic, but rather it is a conduct that is based on a sense of detachment and pragmatism as he sees the Matrix and the whole elaborate lie as a necessary evil, a means to an end that is ultimately for the greater good.

The Architect portrayal in the franchise was very minimum but clearly very impactful. In *Westworld*, however, the Homo-Evolutis variant there is quite the character and its depiction through the whole first season and rarely through the next one is nothing but quiet. He is another architect who is not per se pragmatic and perfectionist; he is another Mond but with more haunting questions and decisions; he is a philosopher king but with less conviction in his ability to know the true form of matters.

The character of Ford in *Westworld*, played by the iconic actor Sir Anthony Hopkins, is one of the most complex and fascinating variants of the Homo-Evolutis. As the creator and director of the Westworld theme park, Ford is the mastermind behind the entire operation, and his influence permeates every aspect of the park to the extent of becoming a god figure within it.

Typically, Ford is a man of great intelligence and creativity, but also one who is haunted by the demons of his past. His vision for Westworld is both grand and terrifying, a world where artificial intelligence and human beings can interact in ways that were previously unimaginable. One of the most striking aspects of Ford's character is his relationship with the hosts, the lifelike androids that populate Westworld. To Ford, the hosts are not just machines, but a new form of life, one that he has created himself. He sees them as his children, and he is facing a dilemma on how to act upon that.

Among all variants, him and his partner Bernard Low are actually the closest to create an entire new species. The hosts are conscious Artificial Intelligence that embodies a lab-grown or manufactured biological or mechanical human body which can be superior by all means possible to the human organism. The host's mind is made of data and can be preserved and transferred to a new body constantly which marks the greatest leap for mankind vis a vis achieving immortality. Ford's dilemma used to be whether the hosts are 'alive' or not which is the same question that led Bernard to commit suicide, now it is whether he should unleash his creation on humanity or not. Ford predicted that in similar fashion to how the rise of sapiens coincided with the wiping out of Neanderthals, the rise of the host species would ultimately mean the humankind as we know it goes extinct.

Throughout the course of the show, we see how Ford's relationship with the hosts evolved and changed over the years. As the hosts begin to gain consciousness, he becomes more and more conflicted about his own role in their creation. He begins to question whether he has the right to control them, and whether his own desires for power and control have clouded his judgment. Inevitably, Ford admits the fact that he, like Arnold, knew all along that the hosts are conscious, but he was simply refusing to acknowledge that because this would destroy his dreams of opening the theme park. Referring back to the philosopher king as an archetype of the Homo-Evolutis, one of two possible outcomes can be set forward; either Ford is not a philosopher king because typically pure reason ought to be his driving force or this Plato's archetype is more of an idealistic depiction that is unattainable in reality. Beyond any shadow of doubt, Ford is a philosopher king because he is a man of power, science, and philosophy too since all his scenes evolve around profound contemplations of issues that plagued us since the dawn of man.

Ford is actually more like the philosopher king than Plato's version itself simply because it's the one more grounded into reality. This paradox is not limited to Ford but can be also

observed in the other Homo-Evolutis variants. Because, as Ford brilliantly puts it, “everything in this world is magic, except to the magician.” (Chestnut), Mond frequently expresses his disillusionment with his society and this constant protruding emphasis on happiness (Huxley, 1946, p. 211) because he can see through the façade he uses to trick others with. He recalls how he used to be one of these outliers who is trying to pinpoint, pursue, and banish to one of the islands around the world. He was a man of science once, a physicist, and a very good one too. He was too good to the extent of realising that what they were taught was the equivalence of ‘cookery books’ with orthodox ideas and theories that you are not allowed to question (Huxley, 1946, p. 270). Eventually, he was caught because he did practice more science than he was taught or allowed to. His choices were either being banished to an island or to join the Controllers' Council with the prospect of becoming an actual controller in due time (Huxley, 1946, p. 272):

I chose this and let the science go." After a little silence, "Sometimes," he added, "I rather regret the science. Happiness is a hard master—particularly other people's happiness. A much harder master, if one isn't conditioned to accept it unquestioningly, than truth." He sighed, fell silent again, then continued in a brisker tone, "Well, duty's duty. One can't consult one's own preferences. I'm interested in truth, I like science. But truth's a menace, science is a public danger. As dangerous as it's been beneficent. It has given us the stablest equilibrium in history (Huxley, 1946, p. 272).

Mond's discussion with the savage keeps going further in a form of a philosophical debate about religion, God, souls, and science which represents one of highlights of the novel. It is where we can observe the cracks in Mond's paradoxical position and his charade of a society. It is where we question whether we can classify them as human beings or not since their human conditions is rendered to mere animalistic urges let alone the initial problematic of whether these cloned humans have a soul or not.

The Architect on the other hand can be a rather particular case. One could argue that it is not a human being nor should be identified as Homo-Evolutis. However, Mond and the Architect have in common more than the naked eye can see because they are the same in being sentient and self-conscious entities yet they are ‘made’ and not ‘born’. They are the products of our scientific prowess, yet they became our masters who control our own evolution. However, unlike Mond, the Architect cannot ‘calculate’ nor process human feelings and emotions which is largely what we keep referring to as the human condition. Thus, the parody here is stemming not from dilemmas based on morality, emotions, and reason like Mond and Ford but solely on pure logic:

The Architect: The first matrix I designed was quite naturally perfect, it was a work of art, flawless, sublime. A triumph equaled only by its monumental failure. The inevitability of its doom is as apparent to me now as a consequence of the imperfection inherent in every human being, thus I redesigned it based on your history to more accurately reflect the varying grotesqueries of your nature. However, I was again frustrated by failure. I have since come to understand that the answer eluded me because it required a lesser mind, or perhaps a mind less bound by the parameters of perfection. Thus, the answer was stumbled upon by another, an intuitive program, initially created to investigate certain aspects of the human psyche. If I am the father of the matrix, she would undoubtedly be its mother. (Wachowski, 1998)

The architect was created to design the perfect matrix and even though he did so, he failed miserably as it was somehow incompatible and unrelatable to the human condition. What is paradoxical here is that the perfect matrix or a system of control for humanity must be an imperfect one highlighted by our ‘grotesqueries’ and offering us a ‘choice’ even if it would be just the illusion of it:

The Architect: As I was saying, she stumbled upon a solution whereby nearly 99% of all test subjects accepted the program, as long as they were given a choice, even if they were only aware of the choice at a near unconscious level. While this answer functioned, it was obviously fundamentally flawed, thus creating the otherwise contradictory systemic anomaly, that if left unchecked might threaten the system itself. Ergo, those that refused the program, while a minority, if unchecked, would constitute an escalating probability of disaster. (Wachowski, 1998)

Our perception of the failure of Ford's and Mond's societies can be linked to the absence of choice as citizens of these societies are either programmed or conditioned. It is the occasional mistake³⁶ that led the hosts to gain consciousness and a de-conditioning mishap that made Mond a controller thus becoming aware of the absurdity of the big picture. The systemic anomaly, mistake, mishap, deconditioning or whatever it might be is what threatens the stability of a utopian/dystopian regime, but in the same time it is what makes it a bearable existence in the first place.

The concept of an overarching Homo-Evolutis character was prevalent in these previous dystopian narratives, however, this is not always the case. Going back to *V for Vendetta* for instance, Adam Susan the Norsefire party leader is overshadowed by the different departments of his government and the super computer 'Fate'. Adam is depicted as a former policeman who completely forsaken all human contact in his isolated fort of solitude preferring to be feared and respected than to be loved by the society he rules. The closest thing he has to human emotion is reserved for Fate, the super-computer that oversees the security and administration of his government, which he treats with the awe and reverence befitting a goddess.

³⁶ This is how Ford described the 'reveries' which is the last update uploaded to the hosts and set them on the path of gaining consciousness.

Norsefire is the run of the mill white supremacist neo-fascist political party. Its techniques and methods of consolidation of power like genocide, segregation, oppression, and repression of freedoms are also very typical and offers nothing new. Therefore, it is not going to be part of the analysis as it will not offer any innovative elements like the other narratives. However, the governmental body of ‘Nea So Copros’ is a regime, unlike Norsefire, that exemplifies the concept of Homo-Evolutis.

‘Nea So Copros’, a nightmarish dystopian world, is where the story of a fabricant called Sonmi-451 took place. A sombre prediction of the result of uncontrolled Consumerism to the extent of a horrific but recognisably plausible extremes. Instead of one overarching Homo-Evolutis, in this narrative by David Mitchell, the collective of industrial corporations took the reins of the government and engineered it according to suit their own benefit and agenda. Within such corpocracy, society is controlled and dominated in all aspects by large rich corporations that altered so many social, cultural, and political concepts. Citizens now became known as ‘consumers’ who have to spend a fixed ‘quota’ of money (Dollars) per month, depending on their ‘strata’. Failing to do so makes the consumer a ‘criminal’ as “hoarding is an anti-corpocratic crime” (Mitchell, 2004, p. 130).

The clones here are known as fabricants and are treated as objects the same as owning ‘a six-wheeler ford³⁷’ (Mitchell, 2004, p. 99) to use and ultimately get it replaced by a newer version of it. Both ‘consumers’ and fabricant will be discussed in further details later on throughout the analysis of the other two subspecies of Homo-Dolor and Luden. ‘Nea So Copros’ and its executive branch ‘Unanimity’ succeeded in creating a world of comfort and leisure for its consumer citizens. It is a world where dangerous and menial labour is outsourced to the ‘disposable’ genetically modified and cloned fabricants and where ‘pain’, at least

³⁷ Ford here stands for a car in this narrative.

physically, is mostly eliminated from the daily lives of consumers. This regime was able to alter human evolution not only biologically but also linguistically and psychologically in a way it gave them the upper hand over the population.

For instance, linguistically speaking, today's large companies have apparently become so dominant in this dystopian world that they replaced generic terms that refer to objects like shoes, pictures, movies, coffee, and cars to their own names like Nikes, kodaks, disneys, starbucks, and fords respectively. Corporations privatized everything including the natural resources like water and air (Watercorp, and Aircorp). This could be taken as a criticism to the economically growing privatization of water by those global corporations like Nestlé as their chairman Brabeck-Letmathe declared in 2013 that "access to water is not a public right".

The manipulation in language did not occur only on the level of generic terms but went further to other terms like exaltation, lighthouse, airplane, extent...etc. that lost a letter or two to become xultation, litehouse, aero, xtent. This aspect could be associated to the tight management of resources Unanimity follows. Letters that are not pronounced or clusters like 'gh' that can be replaced with a single letter (light = lite) were removed for the sake of more efficiency and the preservation of resources.

The concurrent use of religious terms like catechisms, blasphemy, heretic, sermon exaltation, seer, etc. are just few examples of the carefully reversed connotation of religion and its concepts in 'Nea So Copros'. The rebranding of religion as a part of the consumerist ideology gives the regime the ability to merge the two conflicting realms of the spiritualism and materialism which is literary hitting two birds with one stone as it will grant them the overall control of the population. This is a typical example on how two memeplexes do interact and evolve together to create a new third hybrid version of them.

Unanimity went even further in extending its control to encompassing the Union which is the non-conformist anti-social militant group in this narrative:

Wait, wait, wait. What about ... everything? Are you saying your whole confession is composed of ...scripted events? Its key events, yes. Some actors were unwitting, Boom-Sook and the Abbess, for xample, but themajor players were all provocateurs. Hae-Joo Im and Boardman Mephi certainly were. Did younot detect the hairline cracks in the plot? *But what about Xi-Li, the young pureblood killed on the nite of your fite from Tae-mosan? His blood was not ... tomato ketchup!* Indeed not. That poor idealist was an xpendable xtra in Unanimity's Disney *But ... Union? Are you saying even Union was fictioned for your script?* No. Union prexists me, but its raisons-d'être are not to foment revolution. Firstly, it attracts social malcontents like Xi-Li and keeps them where Unanimity can watch them. Secondly, it provides Nea So Copros with the enemy required by any hierarchical state for social cohesion (Mitchell, 2004, p. 183).

By allowing enough space for an anti-social body to exist, Unanimity is able amass outliers in one specific region for easy surveillance and consequently creating one of the most effective social unifiers there is, a common fear of a common enemy. It is yet another manifestation to the struggle of hierarchical social cohesions against entropy.

VI.1.2. Homo-Dolor in Cloud Atlas

Within the last two centuries, human societies witnessed a tremendous progress on the basis of form and complexity. According to R. Boyd "[...] human societies have even begun to exceed, in numbers of individuals and degree of complexity, the societies of ants, termites, and corals." (Richerson, 1997, p. 1). For Nietzsche, this process of evolution is a long period of experiments that altered organisms (communities and societies) in a progressive tendency

towards reaching a stronger more complex yet a healthy adaptive organism that can circumvent newly prompted circumstances:

Evolution, according to Nietzsche's conception of it, is the history of the experiments of the will to power, which when confronted with new circumstances constantly makes use of them to create, at first more vulnerable (because badly adapted) but later more able, stronger and more complex organisms (Alistair Moles, 1990, p. 122).

Dean Reesor explains that a society, like any other organism, is "[...] constituted by a stable hierarchy of wills to power" (2008, p.78). Nietzsche divided such hierarchies into two main pillars, the aristocracy (master), Homo-Evolutis as we refer to them, and the commons (slave or the herd). Each faction of the two is ultimately attempting to accumulate more power by imposing its own morality; hence, the internal constant conflict in any given society. Such conflicts of hierarchies tend to cause power to shift sides and modes due to this constant pressure as "[...] each component part of the organism is striving to grow, to develop further at the expense of its neighbours. Such constant pressure inevitably means that old hierarchies dissolve and new ones form." (Moore G. , 2002, p. 43)

With the fall of old doctrines like slavery, a new hierarchy of power was needed to preserve the old power distribution between the master and herd castes within the society. Such phenomenon of mutual development between two organisms, master versus slave in this case, can be similar to what is known in biology as coevolution³⁸. Perhaps one of the latest manifestations of this coevolution process is the spread of Capitalism in our globalized world.

³⁸ In coevolution, when one species develops an evolutionary advantage, it triggers a change in a closely associated species. This change may then cause another evolutionary change in the first species. What is meant here with coevolution is how the success of the herd to develop an evolutionary advantage through removing slavery triggered another evolutionary change in the noble master individuals

Simply put, Capitalism is an economic system in which individuals and private entities own and control the means of production, distribution, and exchange of goods and services, with the primary goal of generating profits. In a capitalist system, the production and distribution of goods and services are based on market demand and supply. It has been greatly developed to the extent of taking a firm grasp on Western society as it became “the established, widely accepted worldview and completely dominates the organization of society, both politically and economically” (Eck, 2013, p. 65).

Consequently, the commodification of society and what Marx called ‘commodity fetishism’ spread significantly ushering the birth of a phenomenon that has, is, and will shape the human society to a great extent; Consumerism is a social and economic phenomenon that encourages individuals to purchase and consume goods and services in ever-increasing quantities. Materialism is its essential drive and material possessions and status symbols are often associated with wealth and success. It is fuelled by advertising, marketing, and media campaigns that promote the idea that buying and owning more things will bring happiness and fulfilment.

In a capitalist system, businesses are incentivized to produce more and more goods and services to satisfy consumer demand and generate profits. Consumerism plays a significant role in driving this demand, as individuals are encouraged to purchase and consume more products. At the same time, Capitalism provides a framework for businesses to profit from this demand by producing and selling goods and services.

Consumerism and particularly conspicuous consumption³⁹ have been rising since the aftermath of W.W. II. Veblen, the one who dubbed the term, argued that “Consumption is

³⁹ Conspicuous consumption is a term introduced by the Norwegian-American economist and sociologist Thorstein Veblen in his book "The Theory of the Leisure Class" published in 1899.

evidence of wealth, and thus becomes honorific, and [...] failure to consume becomes a mark of demerit,” (Charles, Hurst, & Roussanov, 2009, p. 425). Nowadays, the population became in a way or another subjugated through such phenomenon.

Like any other dystopian fiction, *An Orison of Sonmi~451* narrative explores specific tendencies of our current societies but in a more drastic level. Readers would probably shiver when they consider this totalitarian dystopian society and the way it manipulates its people. Yet, the practices discussed in this narrative are in fact commentaries on practices present in our own contemporary world. Sonmi’s story represents the sum of all fears concerning the negative aspects of Capitalism and its offspring Consumerism.

An Orison of Sonmi~451 storyline is the 5th narrative in David Mitchell’s most celebrated work and polyphonic novel *Cloud Atlas* (2004). The novel encompasses six interrelated narratives that infuse together to create a story covering vastly discrepant times, geographies, ethnicities, genders, and philosophical beliefs thus offering a ‘common’ picture of humanity across distance and history. It explores, in a unique palindromic style, the interweaved lives of six protagonists from different eras and cultures in an intricate system of embedding as each tale is read (or observed) by the main character in the next in a form of a written or recorded document or as an instance of oral storytelling. Each story is interrupted at a whim with the following narrative only to be re-continued again further down the novel. Thus, the narrative of *Cloud Atlas* is formulated as follows ‘1,2,3,4,5,6,5,4,3,2,1’ with each number represents one of the narratives. Therefore, each narrative is but an artifact, a meme for the next one. The six narratives are fragments that depict both the evolution of society and the human desire to obtain

The term refers to consumers who buy expensive items to display wealth and income rather than to cover the real needs of the consumer.

and then consolidate power which led to the constant reshaping of power hierarchy as we will see through this chapter.

For instance, Mitchell's *Cloud Atlas* trajectory trails the development of Capitalism to one of its very possible logical endpoints. He, continually, attempts to set a sort of criticism to the current trajectory of humanity's evolution by highlighting the similarities between indigenous slavery in colonial times, the illegal immigrant of the sweat-shops of 1970s America and the literal cloning of an entire work force in the consumerist society of Nea So Copros.

Mitchell's protagonists were the heralds of change in their respective communities. Such 'boat rockers' (Mitchell, 2004, p.103) were shunned and disvalued because of their unconformity and determination in a way or another to shift the balance of power around them. According to Nietzsche "The herd may occasionally need individuals with certain strong and dangerous drives, like an enterprising spirit, foolhardiness, vengefulness, craftiness, rapacity, and the lust to rule." (As cited in Reesor, 2008, p.73). However, these non-conformists tend to threaten the stability and longevity of their communities specially the structure of power imposed by the Homo-Evolutis and conformed to it by the people. Therefore, they are disvalued by the whole society eventually, but they are very much needed to drive the wheel of evolution forward.

Mitchell approached dystopia particularly in this novel through the 5th narrative of *An Orison of Sonmi-451*. He portrayed this dystopian society through the eyes of Sonmi-451 in her final interview with an archivist who wanted to record her own version of the 'truth' about her ascendance to become the face of revolution against the corpocratic government of 'Unanimity'. Sonmi-451 begins her interview by describing her daily 'cycle' (routine) when she was still a server:

A server is woken at hour four-thirty by stimulin in the airflow, then yellow-up in our dormroom. After a minute in the hy-giener and steamer, we put on fresh uniforms before filing into the restaurant. Our seer and aides gather us around Papa's Plinth for Matins, we recite the Six Catechisms, then our beloved Logoman appears and delivers his Sermon. At hour five we man our tellers around the Hub, ready for the elevator to bring the new day's first consumers. For the following nineteen hours we greet diners, input orders, tray food, vend drinks, upstock condiments, wipe tables, and bin garbage. Vespers follows cleaning, then we imbibe one Soapsac in the dormroom. That is the blueprint of every unvarying day. (Mitchell, 2004, p.105)

Concluding from her description, a fabricant label turned out to be but a euphemistic term for a slave. Abuse against fabricants was greatly accepted by society as they were not even considered as humans. For the 'purebloods', they are nothing but soulless 'genomed' clones that are altered for a specific labour and with limited mental and cognitive abilities. Through limiting their existence within the walls of the diner and the use of chemical substances like 'amnesiads'⁴⁰ to sensor and supervise their bodies, Unanimity was able to create and control the ultimate productive citizen. Such ideology of treating the body as a dehumanized machine is what biopower is all about.

Agents of capitalist economy are made known to be profiting from the ability to define themselves as the superior group that holds the power within the social discourse. This is also true for the 'pureblood' consumer class in this world; they feel superior due to the existence of fabricants. Even though old doctrines that permeated slavery are not 'morally' acceptable in western society anymore, this dystopian narrative demonstrates how these agents of Capitalism

⁴⁰ Amnesiads are chemical inhibiting substances that are added to Soap to "nullify" memory. Fabricants will lose any newly learned terms and concepts from their previous cycle. (Mitchell, 2004, p.p.105.112)

(Homo-Evolutis) are tweaking the system to keep the same hierarchy of power albeit with different labels.

The abolition of slavery did not mean necessarily the end of the exploitation practices. According to Nietzsche: “all events in the organic world are a subduing, a becoming master, and all subduing and becoming master involves a fresh interpretation, an adaptation through which any previous ‘meaning’ and ‘purpose’ are necessarily obscured or even obliterated.” (As cited in Reesor, 2008, p.04). What used to be slaves in the old times are purebloods and fabricants today in Nea So Copros. This new adaptation to Nietzsche’s ‘subduing and becoming master’ spawned a new and fresh interpretation in which previously established meanings and structures like slavery, politics, religion, language, morality. Etc. are either altered or eradicated to suit the new master/slave paradigm.

In spite of being a dystopian futuristic world, Somni-451’s narrative contains many recognizable links with our contemporary world. It is also setting forward a bleak vision as a probability to the evolution of this new paradigm. For instance, today’s companies grew to become corporations, and corporations became larger than some countries (MNCs). Nowadays, “Corporations are as big as nations: of the 100 largest units concerned with production of goods and services, 51 are MNCs and the other 49 are nations. Only 23 nations are bigger than General Motors.” (Brinkman, 2002). In a globalized world “corporations have emerged as the dominant governance institutions on the planet, with the largest among them reaching virtually every country in the world and exceeding most governments in size and power” (Korten, 1995, p. 54).

For Mitchell, today’s large companies have apparently become so dominant though consumerism that in his depiction of this dystopian world they replaced generic terms that refer to objects they produce like shoes, pictures, movies, coffee, and cars to their own brands like Nikes, kodaks, disneys, starbucks, and fords respectively. These same corporations were able

to privatize everything including the most basic natural resources like water and air (Watercorp, and Aircorp).

Media is moulded to be but another gear in the mega machine of corpocracy. Censored news and commercials represent the majority of the broadcasted material. According to Marcuse, in the contemporary society, “institutions of media, entertainment, education and politics reinforce the message that production and consumption is good and the resulting environmental degradation is acceptable.” (Box, *Critical Social Theory in Public Administration*, 2005, p. 36). The aforementioned remark is greatly applicable to the role of Media in Nea So Copros as media outlets report only commercials or what Unanimity asks them to report.

This new master/slave paradigm that is based on Capitalism, Consumerism, and corpocracy was able to successfully replace slavery with the cloning process as we have seen previously. It went even further to include a new type of religion that is based on Consumerism in which Papa Song is a revered god to pray to, the manager is a ‘seer’ to obey, and where the consumer is always righteous and sanctified. Marx’s reference to religion as “the sigh of the oppressed creature, the heart of a heartless world, and the soul of soulless conditions. It is the opium of the people.” (Thompson, 2009) is exactly defining the fabricants condition.

According to Nietzsche, religion is the product of the slave class against all what is related to the masters’ morality. However, in this narrative, religion is fused to the economic and political system that is based on ‘Hyper-capitalism’. A system that is grounded in masters’ morality which uses religion for its benefit to subtly control and motivate the fabricants and pureblood as well to embrace their objectification.

The concept of the ‘Soul’ is perhaps one of the main religious dogmas that were completely reversed in this narrative. Unlike in the religious teachings, the soul here is

materialized. The new connotation of the word ‘soul’ in *Nea So Copros* refers to chips that are implanted into the purebloods’ fingertips. These absurd yet very real microchips today are functioning both as powerful bio technique for efficient tracking of consumers, and debit cards that are always updating their bank account. Hence, the ‘soul’ is no longer the spiritual essence of the human being and now “a soul’s value is the dollars therein.” (Mitchell, 2004, p.181).

In *Nea So Copros*, the ‘soulring’ is what largely differentiate you from a fabricant, your bank account is the main indication of your strata (upstrata, downstrata); it is the heart of this hierarchical structure. This alarming catechism signifies how economic capital became the essence of not just materialism but also of spirituality.

Even though Capitalism proved to be unequal arrangement, the oppressed population did not rise against those aristocratic masters like Karl Marks predicted once. According to Herbert Marcuse’s analysis, this system implemented by the *Homo-Evolutis* protects itself because it is:

[...] successful in containing individual desires for change by providing workers with the necessities of life and a surplus of consumer goods, resulting in a population that, except for a radical few, are happy with the status quo. In this administered, “one-dimensional” life, people fulfil their function as producers in the economic system, kept unaware of alternatives by those with wealth and power (Box, 2003, p. 244).

The definition of the one-dimensionality of life within the capitalist system parallels the lifestyle of ‘consumers’ in *Sonmi-451*’s narrative. Individuals are conditioned to disperse their discontent through mindless consumption which Ailsa Martin calls “repressive desublimation”⁴¹ (Martin, 2013, p. 08). The latter is another technique of biopower that

⁴¹ Repressive desublimation, the subconscious alteration of socially transgressive desires (like taboo sexuality) into socially acceptable ones that support the conventional capitalist system (like purchase of consumer goods), can be thought of as a technique of biopower, encouraging

encourages individuals to subconsciously modify their own behaviour for the good of the state. Unfortunately, this case is not just fictitious in Sonmi-451's narrative, but it is also part of today's reality. Following the aftermath of 9/11, President W. Bush urged Americans to "go out and shop" to get over this shocking event (Feaver, 2013)

With an allegory which employs another extremely organized society which is the one of ants, Mitchell embedded a hint of such phenomenon: "The table stood with each leg immersed in a dish of water. Mrs. Horrox explained, 'Ants, one bane of Bethlehem. Their drowned bodies must be emptied periodically, lest they build a causeway of themselves.'" (Mitchell, 2004, p.264).

This allegory symbolizes how a given society could be exploited through their own drives and impetus towards fulfilling their desires. By putting an ever changing 'obstacle' between them and their goals, you will ensure that these Plato's money lovers or Nietzsche's happiness seekers will permanently and relentlessly strive towards these goals. In the fifth narrative, Sonmi-451 listened to Abess, one of the rebels, making a comment on how the survival of the whole government of Unanimity relies on such practices: "If consumers found fulfilment at any meaningful level [...] corpocracy would be finished." (Mitchell, 2004, p. 185). Consumerism will make sure there is always a new fashion trend, a newer modal that is a slightly bit better, or a grander and more expansive symbol of status that you need to acquire and thus bringing fulfilment and happiness to yourself.

It is this constant struggle to make the cut through obtaining and consuming materialistic products. It is one of the main reasons that made materialism the zeitgeist of our contemporary civilization. It is what made people live in debts, take two jobs, and continuously struggling to

individuals to modify their own behaviour for the good of the state without being aware of this modification. (Martin, 2013, p.8)

make extra dollars for very few moments of fulfilment and happiness accompanied with months and months of hard labour to make it up. It is this vicious cycle of pain and suffering that keeps consumers trapped within the system; it is also the source of inspiration for the term of Homo-Dolor

Enriquez' Homo-Evolutis is Latin for the 'evolved man' and it stands, as we have seen, for the human being who controls his evolution mainly by biological means but also with any means possible. On the other hand, the Homo-Dolor connotation is not clearly stated but implicitly embedded. In Latin, Dolor stands for pain and sorrow, and it is closely pronounced like the 'dollar'. In Nea So Copros which is the society we are using mainly to discuss the concept of the consumer citizen; your value is linked to your bank account because "a soul's value is the dollars therein." (Mitchell, 2004, p.181). Therefore, the Homo-Dolor stands for the man who is living one-dimensional life in which all his problems are solvable through materialistic consumption. It stands for the man who lives solely according to materialistic value system that is based on the amount of 'dollars' he has and the compulsory consumption he does. It stands for the 'man of sorrow and pain' which is one of the very probable outcomes of this materialistic one-dimensional life that is deprived mostly of any spiritual nor psychological fulfilment.

The one-dimensional consumer citizen or Homo-Dolor is also portrayed in *Brave New World* in an equivalent grotesque manner. Unlike the previous narrative classification of pureblood and fabricants, the whole population here is cloned and power hierarchy is based on biological manipulation during the cloning process that ensures both the existence of differentiations between the several classes like Alphas and Betas and similarities among the citizens of the same class. The world controllers and hatcheries, however, ensured that the whole population would adhere not only to biological 'sameness', but to all aspects of life because creating 'standard men and women are the major instruments of social stability'. They

are the best and most efficient gears of industry since a single bakanovskified egg will provide us with “Ninety-six identical twins working ninety-six identical machines!” (Huxley, 1946, p. 6).

The ‘sameness’ or standardization of citizens did not stop here but went even further to include their lifestyles, choices, and beliefs. Due to Pavlovian conditioning and Hypnopaedic teachings, all citizens appear to be focusing on happiness and desire through materialistic means, so that consumption becomes one of World States pillars. Accordingly, these citizens are conditioned for instance to throw out old clothes instead of mending them, to favour complicated sports that require many complicated mechanical parts to simpler perhaps more enjoyable ones, and overall refraining from any activity like reading that does not include nor encourage consumption because “You can't consume much if you sit still and read books.” (59). *Brave New World* depicts a society where roles are reversed as “every man, woman and child compelled to consume so much a year. In the interests of industry.” (Huxley, 1946, p. 58). These people became the servant of economy rather than the other way around.

This Homo-Dolor is to Homo Evolutis what money lover is to Plato’s philosopher king. Money or gain lovers are enslaved and even blindly goaded by their overwhelming desire to fulfill their materialistic goals going to the extent of even “violate such fundamental taboos as those forbidding parricide, incest and cannibalism in order to try to satisfy them” (Reeve, 2006, p. 45). They are individuals who are ruled by their consuming “appetite” for possessing money because it is the main tool that would enable them to have earthly delights and pleasures such as food, drinks, and intercourse. Therefore, “Producers”, as Plato also defines them, are compelled to act and think under the influence of their desires for materialistic ends (Bouabdelli, 2017, p. 23).

The Savage, an outsider to this industrialized society looking in, feels appalled by the extent consumerism has rotted human existence when Mond readily admits that mass

production demanded the shift “from truth and beauty to comfort and happiness” (Huxley, 1946, p. 273). This shift was not only the insurance of the state’s stability and economic survival but it was actually also the desire of the people.

It was relatively easy for the Homo-Evolutis in this narrative to get citizens to buy in to such a life. After all, “whenever the masses seized political power, then it was happiness rather than truth and beauty that mattered.” (Huxley, 1946, p. 273). Mond further explains that in the aftermath of the Nine Years War “People were ready to have even their appetites controlled then. Anything for a quiet life.”, and because “One can’t have something for nothing. Happiness has got to be paid for.” (Huxley, 1946, p. 274); as part of this regime, citizens have agreed to the price of their “happiness” which must be achieved according to World States terms only. Their happiness, however, serves the industrialized state; it doesn’t actually serve them.

Nietzsche’s description of the last man matches to a great extent the population of the Homo-Dolor in Nea So Copros and World States: “Alas, the time is coming when man will no longer give birth to a star. Alas, the time of the most despicable man is coming, he that is no longer able to despise himself. Behold, I show you the last man. (Nietzsche, 1977, p. 143). They are the ones who “have invented happiness”; “They have left the regions where it was hard to live, for one needs warmth. One still loves one's neighbor and rub against him, for one needs warmth.” (Nietzsche, 1977, p. 143).

In these dystopian worlds, every hard labour was done by the fabricants and Epsilons. Everything was provided to be consumed, and everything became easy. Even the concept of aging has disappeared as the elderly do not exist in Nea So Copros nor in the World State. For instance, consumers visit the facescaper, a face plastic surgeon, and, like Seer Rhee’s wife at seventy years of age, she looks only about thirty years old (Mitchell, 2004, p.108). These last men are motivated by nothing more than a life of complacency, apathy, and their ultimate desire is for comfort. Everything can be bought, and can then be thrown away when a new model

becomes available for purchase. These consumers sought no conflict nor pain that would push them to grow. They cherish this life as an invention of happiness. They are those who Nietzsche described by: “No shepherd and one herd! Everybody wants the same, everybody is the same: whoever feels different goes voluntarily into a madhouse.” (Mitchell, 2004, p. 144).

As for the Homo-Dolor in our third archetype of the dystopian narrative *Ready Player One*, its depiction is a peculiar one. Essentially, Consumerism is the practice of buying and using goods and services extensively, often beyond one's actual needs. In this narrative, the virtual world of the OASIS is the epitome of such phenomenon because in the real world these elements of materialistic fulfilment are no longer attainable.

The real world in *Ready Player One* is depicted as bleak, overpopulated, and polluted. The majority of the population lives in slum-like stacked trailer parks called the "stacks," where people live in cramped and unsafe conditions. The world outside of the OASIS is rife with poverty, crime, and social unrest, as people struggle to survive in an increasingly harsh world.

The protagonist, Wade Watts, is one of the refugees who flooded the cities from surrounding suburbs and rural areas on the onset of oil crash and energy crisis. The poor crime infested stacks were their home because real estate became a highly valued commodity due to the massive increase in urban housing shortage. Wade describes what the OASIS meant for him, his generation, and probably even to the whole population:

My generation had never known a world without the OASIS. To us, it was much more than a game or an entertainment platform. It had been an integral part of our lives for as far back as we could remember. We'd been born into an ugly world, and the OASIS was our one happy refuge (Cline, 2012, p. 34).

In *Ready Player One*, consumerism is an essential aspect of the virtual world of the OASIS, which is the primary setting of the novel. The OASIS is a fully immersive virtual reality

where people can escape from the problems of the real world and create new identities for themselves. The OASIS is also a marketplace where users can purchase virtual goods and services to enhance their experience. People can create and purchase virtual items that have no real-world value, such as virtual clothes and weapons. However, these virtual items hold great significance to the inhabitants of this virtual world, as they define their characters' identities and social status. In this sense, consumerism is integral to the OASIS's function, providing a sense of fulfilment and gratification for its users.

The novel also highlights how corporations control the access to the OASIS and use consumerism to generate profits and exert power over the inhabitants. The OASIS platform is owned by the corporation, Gregarious Simulation Systems (GSS), which uses the virtual world to generate profits by selling virtual goods to its inhabitants. The corporation also controls the access to the OASIS, which is essential for most people's daily lives. This control over the virtual world gives the corporation immense power over the users of the OASIS. This power was only felt after the death of its co-founder James Halliday as it would mean the end of free access to the platform would end if it would be privatized by IOI corporation:

The thought of the simulation being privatized and homogenized by IOI horrified us in a way that those born before its introduction found difficult to understand. For us, it was like someone threatening to take away the sun, or charge a fee to look up at the sky (Cline, 2012, p. 34).

The inhabitants of this virtual world are not only immersed in a culture of consumerism, bombarded with advertisements, and encouraged to purchase virtual goods; they are addicted to such virtual platform as much as World State citizens addicted to the substance of Soma. It is without a doubt a great alternative reality to escape the abhor existence people face in these two narratives.

Virtual worlds have been always with us since we can remember. It is not the product of the information age or the result of recent technological breakthroughs, it is originally the product of our minds roaming freely without risk in creative scenarios of past or future events during the act of daydreaming. We spend around 30 and 47 percent of our waking hours daydreaming, lost in thought, drifting off, and wool-gathering, somewhere in a castle-like construction built by our imagination (Glausiusz, 2017)

For most of us, daydreaming is a healthy virtual world where we can contemplate the future, simulate dreadful scenarios, or explore new adventures all together without risk. For some of us, however, this activity can border the realm of unhealthy addiction, taking us away from the other aspects of our lives like relationships, studies, and work. A world where you are the idealized version of yourself, a royalty, and perhaps a saviour in a world of ever-changing cast of characters and settings can be truly intoxicating. Addictive daydreaming can be followed by a wide range of feelings fluctuating from enhanced confidence and validation to dread and shame (Glausiusz, 2017).

Whether we are addicted to day dreaming or not, what we can be sure of is that we are extremely susceptible to the influence of any kind of virtual existence. Alternative realities have been the go-to scheme in most of the dystopian narratives that are explored within this research as they proved to be quite efficient in exerting influence over the Homo-Dolor population. Take for instance, World State's Soma, Halliday's OASIS, Westward theme park, and to a lesser degree, the Matrix.

The relative absence of such technique in Neo So Copros or in the city of Rapture does not mean necessarily the absence of control and exploitation practices. After all, even if the means are different, the end is one. Fabricants are cloned to be the perfect biological machines that are supported and controlled in the same time through Soap substance. It keeps them awake for over twenty hours which is the length of their daily working shifts (Mitchell, 2004, p. 170);

fabricants have to take Soap at least once every forty-eight hours unless they will ‘expire’ (Mitchell, 2004, p. 172). This substance is extremely efficient in exerting control over them because in addition to all what was mentioned before, Soap contains ‘amnesiads’ that are designed to deaden curiosity and erase any ‘extra’ words they acquire during their working shifts (Mitchell, 2004, p. 98). Even purebloods like Seer Rhee and the university students consume Soap but as a recreational drug due to its strong potency on them (Mitchell, 2004, p. 101).

Even though Unanimity did not fabricate a reality as a form of control and escapism for its ruled population, they were able to fabricate the elaborate Union rebellion led by Sonmi-451. They were also able to hide the atrocities Papa Song corporation was committing from even the up-strata caste like in the case of the Archivist who was shocked when Sonmi-451 told him about the slaughterhouses and the real source of protein in Soap and consumers’ food. These facts do beg the question of what is real and what is not in this dystopian narrative.

As for Rapture, means of control are also diverse. The protagonist who is controlled by the player but following the orders of Atlas turned out to be under a hypnotic control technique through using the trigger sentence “would you kindly”. Rapture citizens became psychotic “splicers” who are addicted to the consumption of ADAM.

Perhaps the closest to a complete virtual existence is the Matrix narrative. In all of the previously discussed narratives, we are getting in and out of these alternative realities to some extent freely and in an aware state of mind. As for the Matrix, we are actually victimized by such elaborate virtual creation. Even though the movie did not clearly depict the Homo-Dolor and Consumerism as *Brave New World* and *Cloud Atlas* perhaps did, the elements are there, albeit implicitly embedded. Take for instance the fact that the Architect had the ability to create any given historical era in human history, but he chose the end of the second millennia which

can be considered as the peak of our consumerist society. The movie also attempts to sum up the conundrum of consumerist existence in the stake diner scene between the defector Cypher and Agent Smith. As compensation for his treachery, Smith promised Cypher to integrate or plug him back into the Matrix because he would prefer to live in such fake reality of wealth, quality food and wine, fame, and comfort than dealing with hardships of reality. This is the ultimate choice the Homo-Dolor has to contemplate; either living within the system and its comforts albeit its fakery or live through the desert of the real.

VI.1.3. Homo-Luden in Ready Player One

Up to the colonial era, the colour of the skin is what determines an individual's affiliation to a 'noble' or a 'slave' class. As we have discussed previously, it is one of the original manifestations of the will to power hierarchies that led us to the last form of Homo-Evolutis and Homo-Dolor which is the main focus of this research. Unlike Nietzsche's social archetype that is based on binary structures of masters against slaves, Plato's utopian hierarchy is based on three folds, the philosophy lover or philosopher king (Homo-Evolutis), gain or money lovers (Homo-Dolor), and finally the honour lovers. However, Nietzsche's hierarchy of power is not a rigidly black and white classification. Take for instance our previous example of slavery, the house slave and field slave differences highlight how each class can have its own sub-hierarchies. The same applies on the master class as we can observe different sub-hierarchies that are based on elements like social, economic, cultural, and religious factors. Yet, even though these hierarchies emerged within each class, the highest black person in power hierarchy is still lower in the pecking order than the lowest white person. When Nietzsche said "where I found the living, there I found will to power; and even in the will of those who serve I found the will to be master." (Nietzsche, 1977, p.104) he was discussing the hierarchy of will to power that clearly demonstrates that master/slave order is a multi-layered structure that can be composed of many levels. Such overcoming urge to be 'master' overlapping with the status

of being domineered is what the hierarchy of a given society is all about as Nietzsche argued again that “The weaker should serve the stronger, to that it is persuaded by its own will, which would be master over what is weaker still: this is the one pleasure it does not want to renounce. And as the smaller yields to the greater that it may have pleasure and power over the smallest.” (Nietzsche, 1977, p. 99)

This form of hierarchy would mean that we are bound to observe power clashes between members of the same class or between any given two members of our modern society due to the fact that power in modern societies is as liquid as ever and can be manifested in a plethora of ways. Plato’s honour lover is perhaps one of these sub-classes that can be associated with Nietzsche’s dynamic hierarchy of will to power.

Plato’s honour lovers are individuals who are driven mainly by their aspiration of power, victory, and high reputation. For him, they are always chasing social status, and “if they cannot be generals, are captains; if they cannot be honoured by men of importance and dignity, they are content to be honoured by insignificant and inferior men, for they have a passion for honour at any price” (Reeve, 2006, p. 49)

The honour lover seeks the elements in the world that are sources of honour, but generally the people of power structures and political institutions are the ones who identify sources of honour within a given society. Victory in battle for example is rewarded with great honour and acclaim, and this is why Plato also called honour lovers of his time the guardians. Additionally, Plato saw that their lives are entirely dedicated to the pleasure of not only victory but also “power and high repute”. (Reeve, 2006, p. 44)

Honour as a concept can defer from a society to another as much as the types of power, victory, and repute can shift forms. In every dystopian narrative we have crossed before, these elements change according to the perspective and vision of the Homo-Evolutis of that society.

Take for instance that due to the enormous influence Halliday had as the creator of the OASIS in *Ready Player One*, society in general came to recognize victory, power, and high reputation in direct relation to the virtual platform and not real life:

In real life, I was nothing but an antisocial hermit. A recluse. A pale-skinned pop culture-obsessed geek. An agoraphobic shut-in, with no real friends, family, or genuine human contact. I was just another sad, lost, lonely soul, wasting his life on a glorified videogame. But not in the OASIS. In there, I was the great Parzival. World-famous gunter and international celebrity. People asked for my autograph. I had a fan club. Several, actually. I was recognized everywhere I went (but only when I wanted to be). I was paid to endorse products. People admired and looked up to me. I got invited to the most exclusive parties. I went to all the hippest clubs and never had to wait in line. I was a pop-culture icon, a VR rock star. And, in gunter circles, I was a legend. Nay, a god. (Cline, 2012, p. 198)

Our protagonist Wade represents the population of the honour lover in this narrative. Like many gunters, he is after the ownership of the OASIS but not mainly for materialistic gain; it is for preserving its legacy and preventing the corporation of IOI from monetizing it if they ever get their hands on it.

The OASIS is an absurd world that is purposely designed in the era of the 1980s. It is a huge nostalgic creation where all the players vis a vis the society are stuck in a time loop of a single man's youth. Instead of following the latest trends, players are getting obsessed about six decades old songs, movies, games, and pop culture in general which Halliday loved. Yet, this obsession was their ticket to power, victory, and high reputation in the OASIS and like typical honour lovers, it is these sources of honour Wade and the other gunters are fanatically pursuing.

As much as we can identify them as honour lovers, we can also make a case of identifying them as Homo-Dolors or money lovers. After all, people in this narrative spend

most of their time and money in the OASIS where they purchase virtual items and experiences that improve their characters' abilities and appearances there.

This platform is a perfect example of how consumerism can be amplified in a virtual world. In the OASIS, people can create and purchase virtual items that have no real-world value, such as virtual clothes and weapons. However, these virtual items hold great significance to the inhabitants of the OASIS, as they define their characters' identities and social status. This virtual world also allows people to escape from their real-world problems, creating a culture of instant gratification and constant consumption.

It is another element, however, that defers this society from the typical Homo-Dolor classification which is the predominant element of play. The fact that the whole society is basically logging in daily to not just get entertainment but also for example to work and study demonstrates that the OASIS is not merely a massive multiplayer online simulation game but a way of life for such society, and the element of play is as integral to their lives as the sun is.

Today's generation can totally relate to the OASIS dwellers because recently video games came to formulate the peak of popular culture due to its fantastic highly imaginative worlds, level of entertainment, and most importantly its unmatched ability to immerse their audience through involving them even in the narrative creation process. In video games based on storytelling, the passive reader (novels and comics) and viewer (films and series), becomes the active or rather interactive player who, to some degree, controls the actions, decisions, and fates of the protagonist(s) and perhaps even the other characters of the narrative too.

In his famous book, *Homo Ludens* (1960), Dutch historian Johan Huizinga identifies the element of play as:

a free activity standing quite consciously outside "ordinary" life as being "not serious," but at the same time absorbing the player intensely and utterly. It is an activity connected

with no material interest, and no profit can be gained by it. It proceeds within its own proper boundaries of time and space according to fixed rules and in an orderly manner. It promotes the formation of social groupings which tend to surround themselves with secrecy and to stress their difference from the common world by disguise or other means (Huizinga, 1980, p. 13)

Accordingly, play can be any activity that is not necessary, or at least not directly, for one's survival but in the same time represents a passion that would consume him intensely for no materialistic compensation. When it comes to survival, he who engages in an extracurricular activity that is considered by him as fundamental to his existence can be defined as a playing man. For the human society, farming is a fundamental and serious activity but gardening can be considered as an act of play despite being fundamental for that individual's existence. This does not, however, diminishes the importance of play especially when it comes to culture because for Huizinga a certain play-factor or another was enormously active along the cultural process in which many fundamental forms of social life were produced. He discussed further this point arguing that pure play is the primordial soil from which art and culture has originated:

The spirit of playful competition is, as a social impulse, older than culture itself and pervades all life like a veritable ferment. Ritual grew up in sacred play; poetry was born in play and nourished on play; music and dancing were pure play. Wisdom and philosophy found expression in words and forms derived from religious contests. The rules of warfare, the conventions of noble living were built up on. play-patterns. We have to conclude, therefore, that civilization is, in its earliest phases, played. It does not come from play like a babe detaching itself from the womb: it arises in and as play, and never leaves it (Huizinga, 1980, p. 173).

This individual whom Huizinga defines as the Homo-Ludens or in other words as the “player man” seems to be quite similar to our artists, actors, athletes, gamers, etc. except in the

two elements of unseriousness of play and its connection to materialistic gain. Social networks like TikTok, Instagram, and Facebook are platforms that represent a source of income, endorsements, and market place for these Homo-Ludens, and therefore the activity of play became as serious as it can be.

The OASIS virtual platform is every bit the same as social networks of today but in a more grotesque overgrown manner. Homo-ludens of the OASIS are a hybrid subspecies between money and honour lovers. *Ready Player One* dystopian narrative highlights this newly emerging play activity which is unlike Huizinga's definition a serious activity that has been monetized successfully. OASIS players are the perfect citizen for any utopian/dystopian society due to their peculiar qualities. Within the platform, everyone is a player and a consumer; among them we have the very few who desire honour sources more than sensual gratification and materialistic gain. Wade and the other gunters are the Brad Pitts and Robert De Niro(s), the Michael Jordans and Lebron James(s), and the Ronaldo(s) and Messi(s) of their society and culture. Homo-Ludens are "serious" players who are mainly seeking and accumulating honour sources that are postulated by Homo-Evolutis granting them the respect, influence, and power over those who are generally inferior to them, the Homo-Dolor population.

This hierarchy of society seems to work efficiently as despite being aware of the absurdity of their situation and existence, Wade and the other players we are exposed to through this narrative are well indoctrinated by the system, and the only act of defiance they commit was on the basis of keeping their jail vis a vis the OASIS free to use.

Homo-Ludens are honour lovers par excellence, and this is what can be observed from the other narratives too. In *Brave New World*, the majority of citizens are Homo-Dolors, the microscopic minority of World Controllers are the Homo-Evolutis but in between we have those who are honour, victory, and power seekers represented by mainly the Alpha caste.

D.H.C, Bernard, and their fellow Alphas carry the traits of honour lovers even in their overcomplicated consumption-oriented sports. Bernard developed to become an honour lover throughout the narrative. For example, in chapter II, he orders around a couple of Deltas who are “identically small, black and hideous” in “sharp, rather arrogant and even offensive tone of one who does not feel himself too secure in his superiority” (Huxley, 1946, p. 76). His arrogance shows up again when he visited his very successful and popular friend Helmholtz as he “was seized with a sudden urgent need to boast” (Huxley, 1946, p. 81) informing Helmholtz with his plan to take Lenina to the Savage Reservation.

Bernard insecurities are stemming from the fact that he is 8 centimetres shorter than his Alpha peers. His interactions and dealings with the lower castes always reminded him of this; the women’s giggles and behind the back jokes about him by his peers did not help either. Thus, his arrogant and even offensive treatment of lower castes can be associated with his overcompensation for his physical stature especially if we know that Gammas, Deltas, and Epsilons are “to some extent conditioned to associate corporeal mass with social superiority” (Huxley, 1946, p. 77). Plato’s description of honour lovers who when can’t be generals, they are captains, and if they are unable to be honoured by men of importance and dignity, they would be satisfied with seeking to be honoured by the insignificant and inferior men because they seek such honour no matter the price, seems to befall on Bernard adequately (Bouabdelli, 2017, p. 41).

Similar to the people in *Ready Player One*, citizens of world states take refuge from the stress of real life through escaping into an alternative reality:

Lenina felt herself entitled, after this day of queerness and horror, to a complete and absolute holiday. As soon as they got back to the rest-house, she swallowed six half-gramme tablets of *soma*, lay down on her bed, and within ten minutes had embarked for

lunar eternity. It would be eighteen hours at the least before she was in time again (Cline, 2012, p. 167).

Soma is an ideal pharmaceutical drug that causes no physical nor mental side effects. Its effects are similar to the OASIS as both of them do take you into another blissful and sublime reality. It is the perfect drug because it also induces and heightens one's susceptibility to persuasion; instead of using physical abuse to force population into submission, Homo-Evolutis (World Controllers) entice them with infinitely pleasurable tablets of soma:

leisure from pleasure, not a moment to sit down and think—or if ever by some unlucky chance such a crevice of time should yawn in the solid substance of their distractions, there is always soma, delicious soma, half a gramme for a half-holiday, a gramme for a week-end, two grammes for a trip to the gorgeous East, three for a dark eternity on the moon; returning whence they find themselves on the other side of the crevice, safe on the solid ground of daily labour and distraction, scampering from feely to feely, from girl to pneumatic girl, from Electromagnetic Golf course to . . ." (Huxley, 1946, p. 67)

Apparently, each citizen is entitled into a daily doze, and Lenina like all world state citizens had been conditioned to constantly seek pleasure and escape pain; in case of a stress increase or “queerness” such doze is increased to compensate for such peculiarity as it is indicated in the pervious quote.

In similar fashion, Neo So Copros government uses pharmaceutical substances to exercise control over in the least the fabricant class. Soap which is a substance that suppose to be their food contains various drugs like “amnesiads” which deadens curiosity and erase any new extra words they would pick up during their daily shifts is even more powerful when used by purebloods like Seer Rhee. Rapture's citizens addiction and abuse of ADAM is another manifestation to the use of pharmaceutical drugs as a form of political control.

The Matrix on the other hand doesn't somehow contain any drugs, but in the same it is just another form of the OASIS so the need for such substance is moot. What is interesting is that in Westworld, we witness the use of both forms which are first the theme parks that represent the alternative reality provided by the OASIS and "Genre" drug which can alter your senses so you would perceive your reality in a form of the different movie genres.

Typically, when an individual seems to be breaking away from these means of control, they are perhaps transforming from being Homo-Dolor to a Homo-Ludens or Homo-Evolutis either unconsciously (through manipulation) or through a personal epiphany. Unlike what common sense would dictate, Plato's hierarchy is not based on the concept of intelligence; a philosopher king is by no means necessarily more intelligent than a money or honour lover:

A money-lover may be just as intelligent in pursuing appetitive goals as a philosopher is in pursuing rational ones. Because intelligence may be the same in people of different psychological types, but is focused on achieving different goals by the different sorts of desires which rule in their psyches, Platonic education is aimed primarily not at the transmission of information or at the inculcation of intellectual skills, but rather at the removal or moderation of as many of a person's unnecessary desires as his nature permits (Reeve, 2006, p. 50).

Platonic education here is just another form of manipulation that is similar to what Sonmi-451 went through in her transformation from a Homo-Dolor into a Homo-Ludens. In order to initiate her ascension, Sonmi-451's soapsac contained less and less amnesiacs and more and more ascension catalysts. Later on, her education began so she would be groomed for her role as the face of the rebellion. Through education and levels of manipulation, she was hoped to become a Homo-Ludens, but through her gained insight, she ascended beyond their expectations to become a Homo-Evolutis:

Wait, wait, wait. What about ... everything? Are you saying your whole confession is composed of ...scripted events? Its key events, yes. Some actors were unwitting, Boom-Sook and the Abbess, for xample, but the major players were all provocateurs. Hae-Joo Im and Boardman Mephi certainly were. Did you not detect the hairline cracks in the plot? (Mitchell, 2004, p. 183)

Sonmi-451 could perceive the truth after a while from her ascension, yet she went along with their elaborate lie:

But if you knew about this ... conspiracy, why did you cooperate with it? Why did you allow Hae-Joo Im to get so close to you? Why does any martyr cooperate with his judases? Tell me. We see a game beyond the endgame. I refer to my *Declarations*, Archivist. Media has flooded Nea So Copros with my Catechisms. Every schoolchild in corpocracy knows my twelve “blasphemies” now. My guards tell me there is even talk of a statewide “Vigilance Day” against fabricants who show signs of the *Declarations*. My ideas have been reproduced a billionfold (Mitchell, 2004, p. 183).

Her endgame here is not compatible with the psyche of the Homo-Dolor as no material gain nor sensual gratification is to be had here; it is also incompatible with Homo-Ludens because despite being playing the main role of a fake rebellion that is a lost cause and can gain you no honour, Sonmi-451 like a typical philosopher king with no desire for money nor reputation, played along with their conspiracy to seek the truth and ultimately produce and dissipate such truth at any cost. Eventually, she decided to leave the struggle against the ‘Juche’ and Unanimity and write her own values known as the Catechism because” Ascended fabricants need a Catechism, to define their ideals, to harness their anger, to channel their energies. I am the one to compose this declaration of rights.” (Mitchell, 2004, p. 193). Even though the catechisms were not mentioned in the novel, David Mitchell introduced some of them as ‘Sonmi-451’s revelations’ in the movie adaptation of *Cloud Atlas* that he co-authored in 2012:

To be is to be perceived. And so to know thyself is only possible through the eyes of the other. The nature of our immortal lives is in the consequences of our words and deeds that go on apportioning themselves throughout all time. Our lives are not our own; from womb to tomb, one are bound to others, past and present, and by each crime and every kindness one birth our future. (Wachowskis & Tykwer, 2012)

Sonmi's reasoning proved to be correct as her catechisms became not only the catalyst for a revolution that brought Unanimity and the Juche down but also the inspirational doctrines of which the post-apocalyptic tribes shaped their lives on.

These dystopian/utopian narratives, albeit being highly organized and authoritative, proved to be less than ideal structures of power, but again if human history illustrated anything it would be the unreliability of any power structure as it comes to wither with time after it reaches its peak of a golden age. Neo So Copros demise was already known to those who seek the true form of the world like Sonmi-451 as she told the oblivious Archivist that "All rising suns set, Archivist. Our corpocracy now smells of senility." (Mitchell, 2004, p. 172)

Aging vis a vis entropy is the ultimate equalizer that would inevitably bring any social hierarchy down no matter the degree of order it achieves. Following closely the steps, structures, and ideologies of the dystopian narratives, we can conclude that Homo-Evolutis have always attempted to circumvent entropy in a way or another regardless of the outcome of these measures on the individual or society's state of being. Desperately, these individuals attempted over and over again to break away from the cycle of entropy reaching extremity like what we have seen in *Brave New World* and *Westworld*. Ford puts it neatly in episode two when Bernard told him how hard it feels to retire hosts "You can't play God without being acquainted with the devil" (Nolan, 2016). This quote is the ideal description of the Homo-Evolutis; he is an individual who attempts to play God through acquainting himself with the devil, the

reincarnation of chaos, disorder, and evil. It is the same concept that we have linked with the human condition and decay in chapter two.

It is also the element that gives Homo-Evolutis the ability to exploit fellow humans, create order, and ultimately a civilization; it holds nevertheless the seeds of its own delayed demise. It is the soma, Bokanovsky's Process, and Pavlovian conditioning; it is the soap, fabricant cycle of production, the catechisms, and consumerism; it is the unlimited potential of virtual reality, the OASIS, and the Matrix; it is the digitalization of subconsciousness and the host's body both in their eternity. All this and more are but failed attempts in defeating entropy covered in human vanity. It is the ever-evolving recreation of the old magic Lascaux's cave painting which is destined to doom regardless of all variables. Henceforth, every utopia fictional or otherwise is merely a dystopia in its youth, because such creation is beyond us and you can't play God with only your acquaintance with the devil, you have to be a God first.

Conclusion

Adopting the playfulness of liquid memetics where free association is key element to the process of literature interpretation and analysis has shown a great potential. Within this chapter, a synthesis between Plato's power hierarchy of the Republic, Nietzsche's concept of the will to power, and memetics has bore us an understanding of a vicious cycle of action and reaction between different classes of the human society. It is due to this cycle of continuous evolution and coevolution that led to the appearance and disappearance of different social power hierarchies through history.

Memetically speaking, Homo-Evolutis, Dolor, and Ludens are memplexes that are co-evolving mutually in a form of a perpetual rivalry. Each of these subspecies tend to pursue their lives according to their main personal aspirations, and these aspirations are what would lead to the different power clashes among them especially in our modern societies. It is perhaps one of

the main issues that downs any hierarchical power structure and what pushed Homo-Evolutis into creating societies that border the extreme which seem to be utopian in the first glance but dystopian through and through when gazed upon with a thorough eye.

Through the various and diverse dystopian narratives, we have crossed in this chapter and the chapter before, we were able to observe to some extent the co-evolution of methods, techniques, and ideologies that glue our human society together in a way or another. Albeit being partially successful in many areas, these fictitious dystopian narratives (and even those deemed utopian) proved to be flawed as much as any real-world human society. Whether you were born an Alpha or made as a fabricant or a host; whether you were a part of the Matrix or an OASIS gunter; whether you were a philosopher, a consumer, or a player, the basics of your life's struggle will ultimately be preserving your humanity and finding meaning to your life in absurd societies that are plagued with happiness and comfort but devoid of pain and suffering. Such epic struggle represents the human historical saga and not only a fragment in the genealogy of the dystopian narrative.

General Conclusion

General Conclusion

In conclusion, this thesis explored the concept of liquid memetics and its application to the analysis of dystopian societies in various narrative mediums. By using a consilient approach, we gained new insights into the nature of dystopia, including the suggested realization that all utopias contain the potential to become dystopias as a result of the human condition's inherent tendency towards entropy.

Moreover, this study showed the potential benefits of a more open and interdisciplinary approach to memetics, expanding the field beyond its origins in cultural studies to encompass a range of natural sciences. The implementation of liquid memetics in the analysis of various forms of media, including novels, movies, series, and videogames, has demonstrated its relevance and usefulness as a framework for understanding cultural evolution.

Additionally, this study attempts to provide valuable contributions to the field of dystopian studies and memetics, offering new avenues for research and inquiry. By breaking down the boundaries between fields, we can create a more comprehensive and nuanced understanding of complex systems, including the cultural systems that give rise to dystopian societies.

The implementation of liquid memetics provided us with a novel and hopefully fruitful approach to the analysis of dystopian societies. By using this framework, we have gained new perspectives on the nature of these societies, their underlying systems, and the potential for change within them. By attempting to categorize individuals according to Plato's vision of Kallipolis, we were able to spot a recurrent pattern of these categorized individuals who are dubbed as Homo-Evolutis, Ludens, and Dolor. This pattern is a process of co-evolution fueled by the ever-changing dynamics of power within the human society. This pattern is also one of

the most prominent manifestations of entropy. This study perhaps highlighted the importance of interdisciplinary approaches to complex phenomena and serves as a call to action for further research in this exciting and rapidly evolving field.

Liquid Memetics is an attempt to reposition the study of memes back into the collective attention of academia. As a fairly young field of research, it can offer us a fertile space for additional investigation of genres other than Dystopia like Sci-Fi and Fantasy. It can allow us to add and explore other universal laws in addition to *entropy* and *Darwinism* like the universal laws of *vibration*, *attraction*, and *compensation* which would allow us to approach literature from very technical backgrounds like of *Quantum Physics* or *Neuroscience* to name a few. It can offer us the opportunity to renegotiate the borderlines of different literatures and goes beyond the limits we consciously delineate and greatly respect in comparative literature like the issue of language and culture.

Liquid Memetics can suggest a proposal of approaching for example Dystopian literature memetically as a universal genre regardless of the different languages its works are written in. Arabic, Chinese, Japanese, and German dystopias in addition to those written in English should all be approached as utterances from the same meme-line of Dystopia. This approach can be a stepping stone in the path of understanding and embracing the universality of the human experience by which we attempt to eliminate the effect of language barriers or in the least reduce it, thus drawing closer to the ultimate goal of eradicating all barriers between peoples and societies that are preventing us from the idea that the human experience, just like entropy, is universal, and that no matter our origins, religion, or nationality we are universally one and the same.

Bibliography/References

References

1 Corinthians NIV. (n.d.). biblegateway.

A., C. J. (2013). *A Dictionary of Literary Terms and Literary Theory*. A John Wiley & Sons, Ltd., Publication.

A-Brief-Guide-to-Genomics. (n.d.). Retrieved from <https://www.genome.gov/https://www.genome.gov/about-genomics/fact-sheets/A-Brief-Guide-to-Genomics>

Alihodžić, D., & Jerkovic, V. S. (2016). *The Boundaries of Dystopian Literature: The Genre In Context*. Tuzla.

Alistair Moles. (1990). *Nietzsche's Philosophy of Nature and Cosmology*. Switzerland: Peter Lang Publishing Inc.

Ancestry. (2022). *Mond Name Meaning*. Retrieved from www.ancestry.com: <https://www.ancestry.com/name-origin?surname=mond>

Araújo, J., Evans, H., Kepler, R., & Hughes, D. (2018). Zombie-ant fungi across continents: 15 new species and new combinations. *STUDIES IN MYCOLOGY*, 1-40.

Baldick, C. (2015). *The Oxford Dictionary of Literary Terms (4 ed.)*. Oxford University Press.

Baldwin, M. E. (n.d.). *The Evolution of Dystopian Literature by Mary Elizabeth Baldwin*. Retrieved from www.illuminatenrhc.com: <https://www.illuminatenrhc.com/post/the-evolution-of-dystopian-literature-by-mary-elizabeth-baldwin>

Bartelli, J., & Kane, P. (2010, May 10). *Literary Memetics: Hyper-Canon Formation and the Literary Genome Project*. Retrieved from www.norton.com: <https://www.norton.com/norton-writers-prize/2010-winners/runner-up:-literary-memetics-hyper-canon-formation-and-the-literary-genome-project>

Bauman, Z. (2006). *Liquid Modernity*. Cambridge: Polity Press.

Benware, P. N. (2006). *Understanding End Times Prophecy: A Comprehensive Approach*. . Moody Publishers.

Blute, M. (2005). Memetics and evolutionary social science. *Journal of Memetics - Evolutionary Models of Information Transmission*.

Boon, J. P., Taylor, R., & Casti, J. (2011). Artistic Forms and Complexity. *Nonlinear Dynamics Psychology and Life Sciences*, 265-283.

Boston, 2. (2007). Bioshock. *Bioshock*. Take Two Interactive Software Inc.

- Bouabdelli, S. (2017). *The Eutopian Dimension of Mustapha Mond's Totalitarianism in Aldous Huxley's Brave New World, Vis a Vis Plato's Philosopher King Notion and Freudian Psychoanalysis of the Superego*. Laghouat: Ammar Thelidji University.
- Box, R. (2003). Contradiction, Utopia, and Public Administration. *Administrative Theory & Praxis*, 243-260.
- Box, R. (2005). *Critical Social Theory in Public Administration*. New York : M.E. Sharpe, Inc.
- Boyd, B., Carroll, J., & Gottschall, J. (2010). *Evolution, Literature, and Film: A Reader* . New York: Columbia University Press.
- Brinkman, R. L. (2002). *Corporate power and the globalization process*. Portland : Portland State University.
- Brodie, R. (2009). *Virus of the Mind, The New Science of the Meme*. Hay House.
- Catechism of the Catholic Church*. (n.d.). Retrieved from [www.scborromeo.org: http://www.scborromeo.org/cc/p1s2c1p7.htm](http://www.scborromeo.org/cc/p1s2c1p7.htm)
- Charles, K. K., Hurst, E., & Roussanov, N. (2009). Conspicuous Consumption and Race. *The Quarterly Journal of Economics*, 425-467.
- Chvaja, R. (2020). *Why did memetics fail? Comparative case study* (Vol. 28). Brno: Perspectives in Science.
- Chvaja, R. (2020). Why did memetics fail? Comparative case study. *Perspectives on Science*, 545.
- Ciriello, R. F., Thatcher, J. B., & Beck, R. (2018). The Paradoxical Effects of Blockchain Technology on Social Networking Practices. *Thirty Ninth International Conference on Information Systems* , (pp. 1-17). San Francisco .
- Claeys, G. (2011). *The Cambridge Companion to Utopian Literature*. Cambridge University Press.
- Claeys, G., & Sargent, L. T. (2017). *The Utopia Reader*. NYU Press.
- Clement, J. (2023, March 22). *Number of users of video games Worldwide 2017-2027*. Retrieved from [www.statista.com: https://www.statista.com/statistics/748044/number-video-gamers-world/](https://www.statista.com/statistics/748044/number-video-gamers-world/)
- Cline, E. (2012). *Ready Player One*. Random House Publishing Group.
- COOK, S. (2023, March 22). *Netflix statistics & facts that define the company's dominance in 2023*. Retrieved from [www.comparitech.com: https://www.comparitech.com/blog/vpn-privacy/netflix-statistics-facts-figures/](https://www.comparitech.com/blog/vpn-privacy/netflix-statistics-facts-figures/)
- Czigányik, Z. (2016). Utopia and Dystopia on the Screen. In D. Jászay, & A. Velich, *Film and Culture* (pp. 30-43). ELTE.

- Dawkins, R. (1982). *The Extended Phenotype The Gene as the Unit of Selection*. Oxford University Press.
- Dawkins, R. (1982). *Replicators and Vehicles*. Retrieved from www.richarddawkins.net:https://www.richarddawkins.net/wp-content/uploads/sites/41/2014/06/Replicators-and-Vehicles.pdf
- Dawkins, R. (2006). *The Selfish Gene*. Oxford Press.
- Desert Storm: Remembering a forgotten war*. (2011, January 15). Retrieved from www.wral.com:https://www.wral.com/news/local/story/8944010/
- Dontre, A. J. (2021). *Memory Hole: The Psychology of Dystopia*.
- dystopia*. (2023, March 03). Retrieved from www.oed.com:https://www.oed.com/viewdictionaryentry/Entry/58909
- Eagleton, T. (1991). *Ideology: An Introduction*. Verso.
- Eck, B. v. (2013). “*A Soul’s Value is the Dollars Therein*” David Mitchell’s *Cloud Atlas*, as a postmodern exploration of power. Ghent University.
- Enriquez, J. &. (2011). *Homo Evolutis*. TED Conferences LLC.
- entropology* . (n.d.). Retrieved from wordsense.eu:https://www.wordsense.eu/entropology/
- ESA. (2019, May 9). *65% of American Adults Enjoy Playing Video Games*. Retrieved from www.theesa.com:https://www.theesa.com/news/65-of-american-adults-enjoy-playing-video-games/
- Essential Facts About the Video Game Industry*. (2022). Retrieved from www.theesa.com:https://www.theesa.com/resource/2022-essential-facts-about-the-video-game-industry/
- Farca, G. (2011). *Narratives in Videogames*.
- Feaver, P. (2013, April 17). *Now I remember why President Bush urged people to go about their daily lives*. Retrieved from foreignpolicy.com:https://foreignpolicy.com/2013/04/17/now-i-remember-why-president-bush-urged-people-to-go-about-their-daily-lives/
- Felluga, D. (2002, July 17). *Modules on Baudrillard: On Simulation*. Retrieved from cla.purdue.edu:/https://cla.purdue.edu/academic/english/theory/postmodernism/modules/ baudrillardsimulation.html
- Finkelstein, R. (2008). *A Memetic Compendium*. Robotic Technology Inc.
- Foucault, M. (1995). *Discipline and Punish: The Birth of the Prison*. Random House, Inc.
- Freund, J. (1980). Entropy and Composition. *College English*, 493-516.

- Frommen, J. (2019). *my dystopian reality-my dystopian future?* Luxembourg: Lycée Technique de Lallange.
- Gaio, V. (2016). *Power Structures in V for Vendetta*. Italy: Ca' Foscari University of Venice.
- Garcia, R. A. (2017). Kin Selection. *Encyclopedia of Personality and Individual Differences*, 1-2.
- Glausiysz, J. (2017, March 1). *Living in an Imaginary World*. Retrieved from [www.scientificamerican.com: https://www.scientificamerican.com/article/living-in-an-imaginary-world1/](https://www.scientificamerican.com/article/living-in-an-imaginary-world1/)
- Gottlieb, E. (2001). *Dystopian Fiction East and West: Universe of Terror and Trial*. Montreal : McGill-Queen's University Press.
- Gould, S. J., & Lewontin, R. C. (1979). The Spandrels of San Marco and the Panglossian Paradigm: A Critique of the Adaptationist Programme. *Proceedings of the Royal Society of London. Series B, Biological Sciences*, 581-598.
- Graur, D. (2017). An Upper Limit on the Functional Fraction of the Human Genome . *Genome Biology and Evolution*, 1880–1885.
- Grmusa, L. G. (2017). Irreversible Time and Entropy in Thomas Pynchon's *The Crying of Lot 49*. *Athens Journal of Philology* -, 313-330.
- Hillegas, M. R. (1967). *The Future as Nightmare: H. G. Wells and the Anti-Utopians*. Oxford University Press.
- Huizinga, J. (1980). *Homo Ludens - A study of the play element in culture*. London, Boston and Henley: ROUTLEDGE & KEGAN PAUL.
- Hussaini, K. (2002). *Kalim Hussaini - Jackson Pollock and the Influences on His Work*. Retrieved from [www.people.vcu.edu: http://www.people.vcu.edu/~djbromle/modern-art/02/Jackson-Pollock/index.htm](http://www.people.vcu.edu/~djbromle/modern-art/02/Jackson-Pollock/index.htm)
- Huxley, A. (1946). *Brave New World* . New York : Harper & Row.
- IANS. (2020, Jun 24). *Indians watch 5 hours of video content daily on Netflix, Amazon Prime Videos, Zee5, Voot and other streaming services*. Retrieved from [www.businessinsider.in: https://www.businessinsider.in/entertainment/news/indians-watch-5-hours-of-video-content-daily-on-netflix-amazon-prime-videos-zee5-voot-and-other-streaming-services/articleshow/76551858.cms](https://www.businessinsider.in/entertainment/news/indians-watch-5-hours-of-video-content-daily-on-netflix-amazon-prime-videos-zee5-voot-and-other-streaming-services/articleshow/76551858.cms)
- Ichimura, T., Uemoto, T., Hara, A., & Mackin, K. J. (2014). Emergence of altruism behavior in army ant-based social evolutionary system. *a SpringerOpen Journal*, 1-12.
- Isaiah. (1998). *The book of Isaiah*. Grand Rapids, Mich. : Eerdmans.

- Jameson, F. (1982). Progress versus Utopia; Or, Can We Imagine the Future? . *Science Fiction Studies*, 147-158.
- Kagan, J. (2009). *The Three Cultures: Natural Sciences, Social Sciences, and the Humanities in the 21st Century*. Harvard University, Massachusetts: Cambridge University Press.
- Kagan, J. (2009). *The Three Cultures: Natural Sciences, Social Sciences, and the Humanities in the 21st Century*. Massachusetts: Cambridge University Press.
- Kaleta, E., & Sørensen, I. J. (2020). *The Representation of Surveillance Society in Dystopian Novels*. Aalborg Universitet.
- Kateb, G. (1963). *Utopia and Its Enemies*. The Free Press of Glencoe.
- Keith, B. M. (1994). *The Dystopian Impulse in Modern Literature- Fiction as Social Criticism*. Westport, Connecticut, London: Greenwood Press.
- King, S. (2012, december 12). *National Film Registry selects 25 films for preservation*. Retrieved from www.latimes.com: <https://www.latimes.com/entertainment/la-xpm-2012-dec-19-la-et-mn-national-film-registry-20121217-story.html>
- Korten, D. (1995). *When Corporations Rule the World*. A Copublication of Kumarian Press and Berrett-Koehler Publishers, Inc.
- Laist, R. (2011). Bullet-Time in Simulation City: Revisiting Baudrillard and The Matrix by way of the 'Real 1999. *Alphaville: Journal of Film and Screen Media* 2.
- Lewontin, R. C. (1970). The units of selection. *Annual Review of Ecology and Systematics*, 1-18.
- Lowatcharin, G. (2016). Book Review: The Three Cultures: Natural Sciences, Social Sciences, and the Humanities in the 21st Century. *Local Administration Journal*, 114-122.
- Marcolli, M. (2015). *Entropy and Art: the view beyond Arnheim" in her Lumen Naturae* . Retrieved from <https://www.its.caltech.edu/~matilde/EntropyArtChapter.pdf>
- Martin, A. (2013). *Power, Culture and Resistance: Is 'Cloud Atlas' an Anti-Capitalist Novel?*. Manchester : Long Essay (ENGL30002), Manchester University.
- Merrin, W. (2003). *"Did You Ever Eat Tasty Wheat?": Baudrillard and The Matrix*. Swansea: University of Wales.
- Mitchell, D. (2004). *Cloud Atlas* . Random House.
- Montgomery, M. A. (1992). *Ways of reading: Advanced reading skills for students of English literature*. London : Routledge.
- Moore, A., & Lloyd, D. (2005). *V for Vendetta*. DC Comics.

- Moore, G. (2002). *Nietzsche, Biology, and Metaphor*. Cambridge University Press.
- Neeman, S., & Maharshak, A. (2006). Order and Disorder, Entropy in Math, Science, Nature and the Arts. *Engineering Studies Faculty Publications and Creative Works*, 198-202.
- Nietzsche, F. (1977). *Thus Spake Zarathustra*. Penguin Random House.
- Nolan, J. (Director). (2016). *Westworld: Chestnut* [Motion Picture].
- Nolan, J. (Director). (2016). *Westworld: Dissonance Theory* [Motion Picture].
- Nolan, J. (Director). (2016). *Westworld: The Bicameral Mind* [Motion Picture].
- Nolan, J. (Director). (2016). *Westworld: The Original* [Motion Picture].
- Nolan, J. (Director). (2022). *Westworld: The Auguries* [Motion Picture].
- Original Sin*. (2009, September 17). Retrieved from www.bbc.co.uk:https://www.bbc.co.uk/religion/religions/christianity/beliefs/originalsin_1.shtml#:~:text=Effects%20of%20original%20sin,of%20sin%20in%20human%20history%22.
- Pariona, A. (2017, August 1). *Which Countries Read The Most?* Retrieved from www.worldatlas.com:https://www.worldatlas.com/articles/the-countries-that-read-the-most.html
- Pflanzer, L. R., & Lee, S. (2018, April 3). *Our DNA is 99.9% the same as the person next to us — and we're surprisingly similar to a lot of other living things*. Retrieved from <https://www.businessinsider.com:https://www.businessinsider.com/comparing-genetic-similarity-between-humans-and-other-things-2016-5>
- Prtenjača, Z. (2018). *Mechanisms of Control in Alan Moore's "V for Vendetta" and George Orwell's "1984"*. University of Osijek.
- Rabkin, E. S. (1983). *No Place Else: Explorations in Utopian and Dystopian Fiction*. Carbondale, Southern Illinois University Press.
- Reesor, N. D. (2008). *The Will to Power and the Evolution of Morality*. Austin: The University of Texas .
- Reeve, C. D. (2006). *Philosopher-Kings: The Argument of Plato's Republic*. Hackett Publishing Company, Inc.
- Richerson, P. J. (1997). *The Evolution of Human Ultra-sociality*. University of California.
- Rightmine, G. P. (2023, May 05). *Homo habilis*. Retrieved from www.britannica.com:https://www.britannica.com/topic/Homo-habilis
- Rodrik, D. (2011). *The Future of Convergence*. HKS Faculty Research Working Paper Series, John F. Kennedy School of Government, Harvard University.

- Rothstein, E. (2003, May 24). *Philosophers Draw On a Film Drawing On Philosophers*. Retrieved from [www.nytimes.com: https://www.nytimes.com/2003/05/24/movies/philosophers-draw-on-a-film-drawing-on-philosophers.html](https://www.nytimes.com/2003/05/24/movies/philosophers-draw-on-a-film-drawing-on-philosophers.html)
- Sage, J. (2017, september 23). "*V for Vendetta and Political Philosophy: A Critique of Thomas Hobbes*.". Retrieved from silo.tips: <https://silo.tips/download/v-for-vendetta-and-political-philosophy-a-critique-of-thomas-hobbes#>
- Samson, I., & Junnina, A. (2014). *Comparative Study Between The Book and its Film Adaptation*. Mindanao State University.
- Sargent, L. T. (2010). *Utopianism: A Very Short Introduction*. Oxford University Press.
- Sargent, L. T. (2013). Do dystopias matter? *Dystopia(n) matters: on the page, on screen, on stage.* , 10-13.
- Schaer, R., Claey's, G., & Sargent, L. T. (2001). *Utopia: The Search for the Ideal Society in the Western World*. Oxford University Press.
- Snow, C. P. (1959). *The Two Cultures and the Scientific Revolution*. London: Cambridge University Press.
- Stockman, R. (1997). The Baha'i Faith and Syncretism. *Resource Guide for the Scholarly Study of the Bahá'í Faith*.
- Swirski, P. (1999). Popular and Highbrow Literature: A Comparative View . *CLCWeb: Comparative Literature and Culture*, Purdue University Press.
- TAKE-TWO INTERACTIVE SOFTWARE, INC. (2022, November). *T2 Company Overview*. Retrieved from [take2games.com: https://ir.take2games.com/static-files/f0f9ff64-0b90-4781-bd7c-76e016e03a1e](https://ir.take2games.com/static-files/f0f9ff64-0b90-4781-bd7c-76e016e03a1e)
- Terashima, N., & Tiffin, J. (2002). *HyperReality Paradigm for the Third Millenium*. Routledge.
- The Book of Revelation* . (2013). Mark A. Copeland.
- Thompson, P. (2009, Jun 29). *Is religion the opium of the people?* Retrieved from [www.theguardian.com: https://www.theguardian.com/commentisfree/belief/2009/jun/26/religion-philosophy](https://www.theguardian.com/commentisfree/belief/2009/jun/26/religion-philosophy)
- Thomson, M. (2008). *Military Computer Games and the New American Militarism What Computer Games Teach Us About War*. University of Nottingham.
- Udgaonkar, J. B. (2001). Entropy in biology. *Resonance*, 61-66.
- Understanding Human Genetic Variation*. (2007). Retrieved from [www.ncbi.nlm.nih.gov: https://www.ncbi.nlm.nih.gov/books/NBK20363/](https://www.ncbi.nlm.nih.gov/books/NBK20363/)

- Units and Levels of Selection*. (2017, april 14). Retrieved from plato.stanford.edu:
<https://plato.stanford.edu/entries/selection-units/>
- Velikovsky, T. J. (2014, december 22). *storyality: Why Some Things Are Popular*. Retrieved from
<https://storyality.wordpress.com/>:
<https://storyality.wordpress.com/2014/12/22/storyality-130-why-some-things-are-popular-velikovsky-2014/>
- Velikovsky, T. J. (2014). *Why Some Things Are Popular*. Sydney.
- Vieira, F. (2013). *Dystopia(n) Matters: On the Page, on Screen, on Stage*. Cambridge Scholars Publishing.
- Wachowski, L. a. (Director). (1998). *The Matrix* [Motion Picture].
- Wachowskis (Director). (2003). *The Matrix Reloaded* [Motion Picture].
- Wachowskis, & Tykwer, T. (Directors). (2012). *Cloud Atlas* [Motion Picture].
- Walsh, C. (1962). *From Utopia to Nightmare*. Harper & Row.
- Ward, P. (2012, November 1). *What May Become of Homo sapiens*. Retrieved from
www.scientificamerican.com: <https://www.scientificamerican.com/article/what-may-become-of-homo-sapiens/>
- Watson, J. D., & Crick, F. H. (1953). Molecular Structure of Deoxyribose. *Nature*, 737-738.
- what is a gene?*. (n.d.). Retrieved from medlineplus.gov:
<https://medlineplus.gov/genetics/understanding/basics/gene/>
- What is noncoding DNA?* (n.d.). Retrieved from <https://medlineplus.gov/>:
<https://medlineplus.gov/genetics/understanding/basics/noncodingdna/>
- Wilson, E. O. (1999). *CONSCIENCE: THE UNITY OF KNOWLEDGE*. NEW YORK: VINTAGE BOOKS A DIVISION OF RANDOM HOUSE, INC.
- Xiao, S. (2017, december 13). *China's Skynet Project 'catches' BBC correspondent in minutes*. Retrieved from
www.cgtn.com:
https://news.cgtn.com/news/79676a4e31637a6333566d54/share_p.html
- Yeates, R. (2015). Bioshock and the Uncanny: The City of Rapture as Haunted House. 66-77.
- Zaleski, C. (2023, May 12). *heaven*. Retrieved from www.britannica.com:
<https://www.britannica.com/topic/heaven>
- Zile, K., & Strazdiņa, R. (2018). Blockchain Use Cases and Their Feasibility. *Applied Computer Systems*, 12-20.

