Chapter 2
History of Transhumanism

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2.1 Introduction

As a philosophy transhumanism deals with the fundamental nature of reality, knowledge, and existence. As a worldview, it offers a cultural ecology for understanding the human integration with technology. As a scientific study, it provides the techniques for observing how technology is shaping society and the practice for investigating ethical outcomes. Its social narrative emerges from humans overcoming odds and the continued desire to build a world worth living in. These processes requires critical thinking and visionary accounts to assess how technology is altering human nature and what it means to be human in an uncertain world.

Transhumanism has questioned traditional norms of society, which can be and have been provoking to those who do not share the worldview. Beliefs about life and death are historically the at the heart of people's values. At the core of transhumanism is the conviction that the lifespan be extended, aging reversed, and that death should be optional rather than compulsory. Transhumanism also proposes that artificial intelligence be used to help improve human level decision-making, that nanotechnology resolve environmental hazards, that molecular manufacturing stop poverty, and that genetic engineering mitigate diseases. Nevertheless, a provoked society rears its head in defense. Myths and lore remind us that the Gods can be unforgiving and implacable. We are forewarned not to reach too far, fly too high, or venture where we ought not to tread. Yet, humans are robust explorers who enjoy challenges, ameliorate problems, and uncover the unknowns to transcend limitations.

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2.2 The Transhuman

The term transhuman has an unusual etymology and its usage is found within the fields of literature, philosophy, religion, and evolutionary biology. According to the "Report on The Meaning of Transhuman" [26], the first use as transhuman is written as an Italian verb "transumanare" or "transumanar", as written by Dante Alighieri in *Divina Commedia* [3].[1] In this reference, trans-human means "go outside the human condition and perception". The English translation is "to transhumanate" or "to transhumanize".

Centuries later, poet T.S. Eliot used the term "transhumanized" to represent the risks of the human journey in becoming illuminated as a "process by which the human is Transhumanised" in "The Cocktail Party" [4].[2,3] What is unusual is that both authors, centuries apart, were poets. Further, a link is found between Eliot and Teilhard de Chardin, a philosopher and a Catholic priest, who proposed that man use any appropriate means for transhumanizing himself to the fullest potential in *The Future of Man*[4] [22].

The noun transhuman was formally identified and codified in The *Reader's Digest Great Encyclopedia Dictionary*, which defined "transhuman" as meaning "surpassing; transcending; beyond" (1966).[5] Almost a decade later, the field of science fiction borrowed the concept with Robert Ettinger's use of the term transhumanity in *Man into Superman*.[6] (1972). Futurist FM Esfandiary introduced the transhuman as a future of human evolution in his chapter "Transhumans 2000" in *Women the Year 2000* [24].

The interpretation of the transhuman as an evolutionary process was noted in *Webster's New Universal Unabridged Dictionary,*[7] which defined "transhuman" as meaning "superhuman," and "transhumanize," as meaning "to elevate or transform to something beyond what is human" (1983). At that same time, I authored the "Transhuman Manifesto" and "Transhumanist Arts Statement" (1983), emphasizing an aim to transcend the limits of our bodies and our minds.[8]

> There are numerous forbearers of theories on human evolution and traces can be found in a plethora of sources, all suggesting that the biological human is not the final stage of evolution for the human. The philosophy and social/cultural movement of transhumanism has

[1] Dante, Alighieri. (1308–1321) The Divine Comedy (The Inferno, The Purgatorio, and The Paradiso) (Ed. Ciardi, J.) New York: NAL Trade, 2003. (p. 586–589).

[2] Eliot, T.S. (1952) *Complete Poems and Plays: 1909–1950. The Cocktail Party*. New York: Harcourt. (p. 147).

[3] Sarkar, Subhas (2006) *T.S. Eliot: The* Dramatist. Atlantic Publishers. (p., 192).

[4] De Chardin, Teilhard. (1959) *The Future of Man.* First Image Books Edition (2004).

[5] *The Reader's Digest Great Encyclopedia Dictionary*. (1966). Reader's Digest.

[6] Ettinger, R. (1972) *Man Into Superman.* New York: Avon.

[7] *Webster's New Universal Unabridged Dictionary*. (1983) Fromm Intl.

[8] Vita-More, N. (1983) Transhuman *Statement* in *Create/Recreate.* Available: http://www.transhumanist.biz/createrecreate.htm http://www.natasha.cc/transhuman.htm

> developed not only from the words "trans" and "human", but also through an understanding that the human condition is one in which we might go outside to gain perspective, a process in becoming an evolutionary transformation [28].

2.3 Transhumanism

The origin of transhumanism is bestowed on two British scholars who never met, but both graduated from Oxford University almost a century apart and in two entirely different fields of study. Julian Huxley, an evolutionary biologist and Catholic priest wrote about how humans must establish a better environment for themselves in the essay "Transhumanism" in *New Bottles For New Wine* (1957).[9] Max More, CEO of Alcor Life Extension Foundation, created the philosophy of transhumanism in his essay "Transhumanism: Toward a Futurist Philosophy" [13], which codified the principle that life can expand indefinitely by means of human intelligence and technology.

What turned the philosophical view of our existence into an emerging cultural movement was largely due to the Internet. However, ***before*** the Internet, transhumanism was seeded by people who were curious about new technology and how AI and nanotechnology can change the world. This curiosity was the intellectual fuel accelerated alongside the tech industry. We simply wanted to think about and talk about where technology was heading.

Science played a major role in applying technology to transhumanist interests. Yet, as science aimed to identify and map genes, so did peoples' concerns about genomics, genetically modified food, and cloning. The enthusiasm for biotechnology and the possibilities of nanomedicine and genetic engineering were strong among transhumanists. But it was not considered to be advantageous to the others, especially Bill Joy, Cofounder and former Chief Scientist at Sun Microsystems who wrote the following in *Wired* [11]:

> As this enormous computing power is combined with the manipulative advances of the physical sciences and the new, deep understandings in genetics, enormous transformative power is being unleashed. These combinations open up the opportunity to completely redesign the world, for better or worse: The replicating and evolving processes that have been confined to the natural world are about to become realms of human endeavor. … We now know with certainty that these profound changes in the biological sciences are imminent and will challenge all our notions of what life is [11].

Through waves of optimism on the one hand and techno-fear on the other, a cultural and socio-political divided arose. Bioethicists made public claims that biotechnology and emerging technologies of AI and nanotech should be stopped, and activists for technological acceleration requested venues for debate. With such a divide, a new way of thinking was necessary to mitigate disparity within society and to steer

[9] Huxley, Julian. (1957) "TRANSHUMANISM" In *NEW BOTTLES FOR NEW WINE: ESSAYS*. London: Chatto & Windus.

toward academic mindfulness and mainstream awareness. Thus, contrary to journalistic hyperbole and postmodernist hegemony, the aim of transhumanism has been and continues to be to establish a platform for critical thinking and visionary foresight that can and will have significant impact on people. This impact is to educate society and to offer platforms for discussion and take the conversation out of the postmodernist rhetoric, journalistic sensationalism, and fear-mongering of bioethicists, into the public arena. Each person—whether privileged with access to the Internet or other areas of the world where technology was not available, is curious about their future and hungry for answers.

Looking back at the cultural advocacy that precedes the Internet: Silicon Valley startups and their counterpart—the Los Angeles entertainment industry eventually had to became cohorts. Computer scientists provided the technological prowess; writers, musicians, designers, and innovators added the allure of the future with visual content and futuristic narratives. During this time, behind the scenes, transhumanist journals and conferences was building systematic studies and models in forming the worldview of transhumanism. Through this, transhumanism applied tools of forecasting, trend analyses, information theory and systems thinking. Attention was given to and included the knowledge provided by Gordon Moore and Moore's Law that transistors in integrated circuits double every two years exponentially, A.H. Maslow's hierarchy of needs as stemming from motivation, and Lynn Margulis' symbiotic theory of eukaryotic cell development, which revolutionized modern concept of how life began on Earth. Certainly, there are more theoretical findings to mention; however, the aforementioned stand out as essential because technology has become exponential, human needs have been at the forefront of innovations and address the question of what it means to be human.

Transhumanist thinking may have been a catalyst that prompted curiosity and the desire to find solutions in areas of knowledge gathering critical thinking, ethics, and visionary foresight in developing new social narratives. For example, venues such as TED talks and makerspaces, projects such as Quantified Self, and DIY all strongly exemplify transhumanist behavior. This behavior evidences how life experiences can be uncovered, expressed, and shared and then transmitted across varied channels of communication and collaboration. TED talks are all about what a person did differently, a type of hero or heroine's journey, and how that journey contributed to the personal's life experience and through this, add to the well-being of society. Makerspaces provide a collaborative venue for people to come together and identify a problem, strive to figure out how to unravel it, roll up their sleeves, and then create an innovative solution. The Quantified Self project is all about a person's life—their numerical self and how that person identified their problem, such as difficulty sleeping, high blood pressure, and/or when to exercise, for example, and then sought to develop a system to help adjust that behavior. DIY may have been an earlier version of these three projects, but each one of them include the do-it-yourself mentality in being "self-responsible" for their own well-being, and through this—helping their loved ones to be better too, and this sentiment, or this intelligence, trickles across society like a chain of paying it forward like an infectious smile that keeps giving.

These examples are grassroot and located within their own domain of experience, but they evidence how self-responsibility is a shared cultural behavior. We start someplace—perhaps at the bottom with our own identity to place in life, and then experience, learn, evolve, and become someone or something better than when we started. You could call this spiritual, or simply intelligent. All in all, it is natural—an innate element of human psychology of survival—that is shared among individuals and society.

And this is how transhumanism as a philosophy became a growing worldview. It is a process and behavior that started in 1989 through a high-gloss print journal called *Extropy: The Journal of Transhumanist Thought*. In 1991 the original transhumanist email list called "extropy", a metaphor for negentropy as refers to a systems intelligence, order, vitality and capacity and drive for improvement. The Internet was the most fertile breeding ground for people interested in learning about and exploring transhumanist thinking, including innovators, entrepreneurs, and academics that furthered a transdisciplinary scope. In 1991, the first email list covering technology and humanity's future was developed by transhumanists at Extropy Institute, the first transhumanist non-profit organization. The organization hosted a series of conferences from 1994 to 2004 with keynotes and thought leaders who set the bar high. In fact, the original ideas about artificial intelligence and human computer integration, encryption, crypto currency, AI, Super AI, nanotechnology, the technological singularity, radical life extension, and uploads (posthumans), were incubated at these conferences.

Today, the merging of early transhumanism and its pioneers with other organizations and disciplines, increased use of social media, and the mainstream's awareness of and interest in nanotechnology, AI/AGI, and life extension has reached a paradigmatic shift and, along with the project Humanity+. The symbol for transhumanism has gained branding currency as "H+" and while a trademark of Humanity+, a 501(c)3 non-profit, a version of h + is also copyright protected by Humanity+ for its magazine. Humanity+ is the largest transhumanist organization worldwide and is associated with many other organizations that aim to inform the public about the advances in technology, ethics, and political issues that are ahead.

2.4 Misinformation

Over the past many years, I have witnessed varied articles, documentaries, and other formats misconstruing the meaning of transhumanism. I remember in 2009, I happened upon an academic journal that published an article on transhumanism: *The Global Spiral*'s [23] "Special Issue on Transhumanism",[10] produced by Guest Editor Hava Tirosh-Samuelson and five contributing authors, Ted Peters, Katherine

[10] Special Issue on Transhumanism (2008) In *The Global Spiral*, (Guest Editor, Hava Tirosh-Samuelson), Vol. 6, Issue 3. Available http://www.metanexus.net/magazine/PastIssues/tabid/126/Default.aspx?PageContentID = 27

Hayles, Don Ihde, Jean-Pierre Dupuy, and Andrew Pickering. These scholars were provoked by transhumanism and pushing back from their postmodernist stance with forked tongues. I was deeply concerned by the hearsay. How could these revered academics blatantly counter what I had experienced first-hand?

> The philosophical worldview and social movement of transhumanism has the benefit of existing while many of its pioneers are still living. This makes it more accommodating for those unfamiliar with transhumanism to investigate and argue its tenets with the most recent writings at hand. Rather than searching endless databases for bibliographical references and out-of-print books in gathering evidence of who did what, when, and where, researchers can easily locate people though Google and send an email or make a call. Why the authors of the "Special Issue on Transhumanism" in The Global Spiral did not do this is a curiosity. Nonetheless, their six essays present a much-appreciated opportunity for developing discourse on transhumanism [28].

After reading my concerns, the journal's Managing Editor invited to be Guest Editor of a new Special issue on Transhumanism.

> This caused a responsive second "Special Issue on Transhumanism", with Guest Editor Natasha Vita-More and nine other transhumanist authors, including Aubrey de Grey, Martine Rothblatt, Max More, Nick Bostrom, and Russell Blackford, to evaluate the criticisms and address concerns [28].

I do not think that the original special issue was intended to cause a backlash from transhumanists in academics and the mainstream. These scholars were protecting their domain in philosophy and the humanities.

A complex world is challenging and fast-track news gathering can obfuscates fact from fiction. And our biological limitations of processing information should be noted: the human body transmits over 10 million bits of information per second to the brain; yet, our conscious mind processes only a portion of this [7]. It is no wonder that human interpretation of information can be faulty. Even first-hand experience often alters perceptions that influence how experience is interpreted.

2.5 Influencers

There have been social and political influencers within transhumanism, and the humanities continue to play a major role in the ideology of humanism and links to the worldview of transhumanism. In humanism, the democratic and ethical life stance asserts that humans have a right to give meaning to their own lives. Transhumanism encases this view but takes it further by strategizing theoretical and practice-based models that propose how humans can shape their own lives. Yet, some cases, human psychology, emotions, intelligence, and mental attitudes invite or block the ability to accept or refuse the unknown. Society in the 1980s did not accept the concept of the transhuman, and in the 1990s the idea of transhumanism was loved or hated it. Strong words to be sure, but this was prevalent. Innovators of encryption and cryptocurrencies, entrepreneurs of robotics, AI, and nanotechnology, along with space enthusiasts, life extension activists, and consciousness seekers

cherished the idea of transhumanism. Conversely, bioethicists, postmodernists, religious groups, and others were concerned about new technologies, human enhancement, and genetics loathed it. Interestingly, the science fiction cyborg, borrowed the coined term from Manfred Clynes and Nathan Kline, [2]. Rather than relevant to cybernetics and a necessity for space exploration, the cyborg became a terminator. It was borrowed again as a feminist salvo in its reinterpretation by Donna Haraway in her statement "I'd Rather be a Cyborg than a Goddess" [9].

In reflection, a question that went unanswered is why did society accept the cyborg as a machine-man science fiction terrorist and not appreciate the actual transformation of human as the transhuman—a human with ethics and a desire to enhance with technology?

2.6 Politics

Early transhumanists were mostly located in the United States in New York, Los Angeles, and startup hubs such as Silicon Valley. New York and LA hosted more liberal thinkers with social concerns who leaned toward the Democratic party with some Libertarian philosophical influence. Computer and startup hubs, such as Silicon Valley, were largely Libertarian. Entrepreneurs who funded projects were independents, Libertarian, or Republican. There were also many Democrats, Green Party members, Socialists, Upwingers, etc. In LA, most transhumanists were Upwingers (neither right nor left), stemming from F.M. Esfandiary's (aka FM2010) writings about the future and the transhuman. I want to make this point clear: early transhumanists were diverse and not representative of any one religious, anti-religious, or spiritual belief and not of any one political position or party.

Political positioning for misuse of information has damaged many cultures, including transhumanism. It conflicts with the transhumanist tenets of diversity and advancement. The continual improvement as both physical and psychological. Considering this, transhumanism cannot be one political position. That attitude is counter to the fundamental values of a systems intelligence, order, vitality and capacity and drive for improvement and the three essential elements of transhumanism: critical thinking, technological innovation, and visionary narratives.

There have been a few transhumanists in the political arena over the years. FM Esfandiary set the political stage in his book *Upwingers a Futurist Manifesto* [6], which normative platform reached beyond the Right/Left predicament and set out a non-linear evolving view of moving upward:

> We are at all times slowed down by the narrowness of Right-wing and Left-wing alternatives. If you are not conservative, you are liberal if not right of center you are left of it or middle of the road. Our traditions comprise no other alternatives. There is no ideological or conceptual dimension beyond conservative and liberal beyond Right and Left. … The premises of the entire Left are indistinguishable from those of the entire Right. The extreme Left is simply a linear extension of the extreme Right. The liberal is simply a more advanced conservative. The radical Left is a more advanced liberal. …

> The Right/Left establishment is fighting a losing battle. It is following in the footsteps of earlier traditionalists who resisted the more modest breakthroughs of the past … ([6], pp 21–25).

A small cable TV show called "Breakthroughs: A TransCentury Update" (aka "Transhuman Update") aired in Los Angeles and Telluride, Colorado. As its producer and host, I interviewed innovators of emerging and speculative sciences and technologies. One benefit that came out of this was body of work is that it afforded an insight into what was to come. A side effect was that due to the cutting-edge content, a viewer nominated me to run for the 27th Senatorial District of Los Angeles County on the Green Party ticket for a seat as County Councilperson. After a few months campaigning, I was elected on a Transhumanism platform—promoting environmentalist use of technology.

Between the mid-1990s and 2018, there has been a working group of transhumanists of who are devoted to politics and building a substantive set of guidelines and roadmap for the future. The fact is that society must be informed issues we face that will affect society and its governance. This is a far heavier issue that right vs. left. Further there is a gap in the education of society or what is often called long-long learning, where continuing education is not only essential, it is crucial. People must keep up, learn how to use smart devices to understand where technology is heading. This includes technological advancements that are altering our lives and the scope of economic and political issues; and that governments:

> … dramatically expanded governmental research into anti-aging therapies, and universal access to those therapies as they are developed in order to make much longer and healthier lives accessible to everybody. We believe that there is no distinction between "therapies" and "enhancement." The regulation of drugs and devices needs reform to speed their approval [21].

2.7 Transhumanism Now

With a focus on why transhumanism is a solution to many of the issues humanity faces, mention must be given to approaches that can help the decision-making process. I will touch on several projects conceived by thought leaders of transhumanism, its early adaptors, and in a few instances, its pioneers.

To begin, decision-making works best when it is open and balanced. It is difficult for us largely because the human interpretation of information is assessed and filtered by personal perceptions. As an example, the well-known Precautionary Principle "… is a moral and political principle which states that if an action or policy might cause severe or irreversible harm to the public or to the environment, … the burden of proof falls on those who would take the action" [10]. Rather than placing the burden of proof on absolute judgement of unknown outcomes, a more balanced process for policy making in weighing the pros and cons can be achieve by using the Proactionary Principle:

> People's freedom to innovate technologically is highly valuable, even critical, to humanity. This implies a range of responsibilities for those considering whether and how to develop, deploy, or restrict new technologies. Assess risks and opportunities using an objective,

> open, and comprehensive, yet simple decision process based on science rather than collective emotional reactions. Account for the costs of restrictions and lost opportunities as fully as direct effects. Favor measures that are proportionate to the probability and magnitude of impacts, and that have the highest payoff relative to their costs. Give a high priority to people's freedom to learn, innovate, and advance [15].

Another necessary and timely concept for human right is Morphological Freedom, which means "[t]he ability to alter bodily form at will through technologies such as surgery, genetic engineering, nanotechnology, uploading" [14]. Ownership of one's body is championed as a human right, as expressed by Anders Sandberg of the Future of Humanity Institute, Senior Research Fellow at the Future of Humanity Institute, Oxford University:

> Morphological freedom can of course be viewed as a subset of the right to one's body. But it goes beyond the idea of merely passively maintaining the body as it is and exploiting its inherent potential. Instead it affirms that we can extend or change our potential through various means. … Without morphological freedom, there is a serious risk of powerful groups forcing change upon us. Historically the worst misuses of biomedicine have always been committed by governments and large organizations rather than individuals. … It hence makes sense to leave decisions on a deeply personal ethical level to individuals rather than making them society-wide policies. Global ethical policies will by necessity both run counter to the ethical opinion of many individuals, coercing citizens to act against their beliefs and hence violating their freedom and contain the temptation to adjust the policies to benefit the policymakers rather than the citizens [19].

On a global scale, a transhumanist priority is considering the risks, uncertainties, and the magnitude of expected loss due to catastrophes. Existential Risk, as clarified by Nick Bostrom, considers three dimensions that describe the magnitude of risk, its scope, intensity, and probability. According to Bostrom, Founding Director of the Future of Humanity Institute, existential risk means: "[o]ne where an adverse outcome would either annihilate Earth-originating intelligent life or permanently and drastically curtail its potential" [1].

> An existential risk is one where humankind is imperiled. Existential disasters have major adverse consequences for the course of human civilization for all time to come [1].

2.8 Connections

I have presented the earliest accounts of transhumanism and how it surfaced during a time when emerging technology attracted an identifiable excitement and a lot of fear in society. The emotions could be felt within tech and futurist communities, science fiction narratives, academic humanities, biotechnologies, and computer science, and cyber security, and literally whooshed into the hands of entrepreneurs of tech start-ups. The arousing volume was varied and vast, and at points even cosmic. Emerging technological output, the innovations, products, processes, including the smart devices and the mobility of digital networks landed the Internet of things.

I now point you to experts and their books that I have not yet mentioned in this chapter. I cannot mention all experts or written materials, although those that I leave

out are important and can be found through Google. To begin, let's summarize the scope of transhumanism.

Imagine an interconnected system as a mind map where the human is at the core. Considering the core, you can see into the distant past when endosymbiotic theory of eukaryotic cell development two billion years ago (Margulis), moving forward to the hominin of 5 million years ago, to the Homo sapiens approximately 200,000 years ago and to the most recent account of human evolution of the frontal lobe at 1.8 million years ago. Outside the core, but interconnected, are the variables of live and living. One variable is the computers and the microchip that transformed our lives within the past four decades, more than biological evolution over the past 200,000 years. A sub-variable identifies the integration of technology with biology, linking to human senses, mobility, communications. This sub-variable links to a higher level of variables, one of which is intelligence. Here the map shows numerous links back and forth from the brain to the computer and the fields of neuroscience, cognitive science, and then outward in to the map to the Blue Brain Project, Neuralink, DARPA, Jülich Research Center, Google Brain Project, and many more.

As a historical map, consider the connection between the following events:

Exponential Technology. K. Eric Drexler provided the creative concepts for technological capabilities, including nanotechnology, it in *Engines of Creation* (1986). Kevin Kelly took a practical approach to the 1990s social fear in *Out of Control: The New Biology of Machines, Social Systems, & the Economic World* (1995). Ray Kurzweil turned human enhancement mainstream in his book *Building a Mind* and *The Singularity is Near* (2005). Kelly re-appears and observes technology's future in *What Technology Wants* [12], and Peter Diamandis suggesting global benefits of technology in *Abundance* 2012), which reflects to Drexler's creative concepts of molecular manufacturing solving many of the World problems.

- Nanotechnology, biotechnology, information technology, AI/AGI, cognitive science, neuro science, robotics, backing up the brain, Moore's Law, 3D printing, molecular manufacturing, abundance, radical life extension, space travel, etc.

Serious issues. Mainstream issues harken over the scope of technology and its potential to do harm. and Anders Sandberg offer a conservative tone about Existential Risk, identifying the five biggest threats to human existence [20].

- Existential risk, human evolution, Proactionary Principle, policy making, political issues, ethics and objective observations vs. career bioethicists.

Evolution: If we continue to use technology to develop ways to live longer, then we are within the scope of an evolutionary leap. The most intriguing aspect of this evolution is reversing aging and extending the human life span. Aubrey de Grey calls this longevity escape velocity (David Gobel). As explained by de Grey this means that a technological breakthrough could increase general life expectancy by more than the one year of a person's life. The younger a person is or the faster improvements in life-extending therapies are develop could determine their potential life expectancy.

- Aging: aging, reversing aging, the disease of aging, radical life extension, cryonics, whole body prosthetics, future bodies, non-biological systems for life.

2.9 Continuity

Martine Rothblatt, founder of Sirius XM satellite radio and currently CEO of United Therapeutics Corporation, once voiced her views to me about transhumanism. To paraphrase, she said that the point of life is to evolve. We start out as a person, incomplete and unpolished, and evolve into person that continues to complete.

Transhumanism is about improving the human condition, which means the distinct characteristics of being human and human existence, including survival and evolution human nature. What does this mean? The human condition means human nature, human society, and how people live their lives. For example, the unique and distinct characteristics of being human and human existence, including survival and evolution. The question of whether humans are naturally good or evil, selfish or altruistic, naturally social beings or individuals, and relationships between genders, are questions that religion, philosophy, psychology and sociology think about and try to understand. The emotions that we call all so human are of great value in feeling love and compassion, these characteristics are wonderful attributes—generosity, creativity, intelligence, and fearlessness. Some are not so great and cause unnecessary pain, anguish, distressing, and the indefensible sorrow of mental illness. The good and the bad together form the characteristics of what it means to be human.

At the forefront of the future of humanity, transhumanism is renown. Its educators, thought leaders, business, research centers, organizations and individuals have all been part of this growing movement. That the public is curious and concerned about what it means to be human and questions what we will become. To help answer the public's curiosity and concerns, transhumanism is finding solutions, offering alternatives to political structures, and providing the knowledge and well-thought-out potential solutions needs to be instilled into society in a positive manner.

2.10 Conclusion

Transhumanism's time has arrived. "It has struck a chord with many who want to fight the onslaught of disease and live longer healthy lives. It is no longer a complex concept that encounters vast and often confusing questions" [25]. The earlies ideas, terms, and themes transhumanists have been writing and talking about for three decades have become mainstream. Nevertheless, there are still some unanswered questions and misconceptions about the history of transhumanism that linger in the cultural ethos—that of an unclear and irregular accounting of the past. The aim of this chapter has been to present an historical account covering the past three or more decades.

Moving forward, there is a need to question the existing state of affairs and to be informed about opportunities for the future. The very core of transhumanist thinking prepares us to be leaders of our own lives and to work with others to help increase the well-being of others. Together we are trailblazers propagating and encouraging

seminal, ground-breaking solutions. The more we engage in the unknowns, the more we adapt to change, the more we challenge your own thinking, the more impactful our shared knowledge will address the challenges we face. We are part of this Transhumanist Era.

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