A History of Transhumanism

By

Elise Bohan (B.A., M.Res)

Submitted November 2018

Macquarie University, Department of Modern History

42504422

Statement of Originality

This work has not previously been submitted for a degree or diploma in any university. To the best of my knowledge and belief, the thesis contains no material previously published or written by another person except where due reference is made in the thesis itself.

Signed: Elise Bohan_

Date: _____30/11/2018______

Acknowledgements

To David Christian, thanks so much for volunteering to supervise a Ph.D. candidate who started out with the vague idea that they wanted to explore Big History, transhumanism and the future of humanity. After some twists and turns I think it's turned out rather well. To Neil Levy, thanks for the comments on the final draft.

For the rest, I'll simply tip my hat to the many lucky hands I've been dealt in this great cosmic game of chance. The ones that come in the form of people, you know who you are. Thanks for being excellent humans!

List of Figures

- *Fig. 1.* Table of core transhumanist themes. p.17.
- *Fig. 2.* Sample page from *Whole Earth Catalog* (Fall, 1968): 3. See: <u>http://www.wholeearth.com/uploads/2/File/documents/sample-ebook.pdf.</u> p.128.
- *Fig. 3.* Cover of the first issue of *Mondo 2000* (Fall 1989). Marked as issue #7 as the issue sequence carried over from *Mondo's* precursor publication, *High Frontiers*. See: <u>https://archive.org/details/Mondo.2000.Issue.01.1989.</u> p.129.
- *Fig. 4.* Cover of *Wired* magazine (May 1997). See: <u>https://www.wired.com/story/wired-cover-browser-1997.p.130</u>.
- *Fig. 5.* Cover of *Omni* magazine (August 1979). See: <u>https://flashbak.com/great-sci-fi-magazine-tv-commercials-of-the-1970s-and-1980s-28268/.</u> p.131.
- *Fig. 6.* Cover of *L5 News* (December 1976). See: <u>http://www.nss.org/settlement/L5news/L5news/L5news7612.pdf.</u>p.137.
- Fig. 7. Cover of Extropy magazine, issue #1 (Fall 1998). Cover designed by Tom Bell. Image archived June 15, 2000. See: <u>http://web.archive.org/web/20000615193433/http://members.aol.com/t0mor</u> <u>row/Ex FCov1.html.</u> p.148.
- Fig. 8. First adverstisment for *Extropy* magazine c.1998. Designed by Tom Bell. Image archived October 17, 2001. See: http://web.archive.org/web/20011027103140/http://members.aol.com/t0morrow/Ex ad.html. p.149.
- *Fig. 9.* Cover of *Extropy* magazine, issue #15 (1995). See: <u>http://fennetic.net/irc/extropy/ext15_cover.pdf</u>. p.174.
- *Fig. 10.* Photograh of *Extropy* editors. Printed in Ed Regis, "Meet the Extropians," *Wired*, October 1994. See: <u>https://www.cryptocoinsnews.com/extropian-roots-bitcoin/.</u> p.179.
- *Fig. 11.* Max More's signature at the close of an article annoucing the launch of the Extropy Institute. See: Max More, "Extropy Institute Launches," *Extropy* 9 (Summer 1992): 11. p.182.
- Fig. 12. Photograph of Natasha Vita-More from the "Bodybuilding" section of her now defunct personal website, hosted at *natasha.cc*. Photographer unknown. Image archived February 3, 2001. See: https://web.archive.org/web/20010203204500/http://natasha.cc/bodybuilder.htm. Photograph of Natasha Vita-More from the "Bodybuilding" section of her now defunct personal website, hosted at *natasha.cc*. Photographer unknown. Image archived February 3, 2001. See: https://web.archive.org/web/20010203204500/http://natasha.cc/bodybuilder.htm. Photographer unknown. Image archived February 3, 2001. See: https://web.archive.org/web/20010203204500/http://natasha.cc/bodybuilder.htm. Photographer unknown. Image archived February 3, 2001. See: https://web.archive.org/web/20010203204500/http://natasha.cc/bodybuilder.htm. Photographer unknown. Image Photographer unknown. Image Photographer Unknown. Image Photographer Unknown Photographer Photographer Unknown Photographer Photo
- Fig. 13. Fig. 14. Portrait photograph of "Mistress" Romana Machado. Photo appeared on Machado's now defunct website glamazon.com. Photographer unknown. Image archived June 18, 2001. See: <u>https://web.archive.org/web/20010618210649/http://www.glamazon.com:80/</u> images/0016.jpg. p.190.
- *Fig.* **14.** Photograph of "Mistress" Romana Machado flanked by fellow party goers at a Halloween party at the Exclave. Photographer unknown. Photo appeared on *glamazon.com*. Image archived February 22, 1997. See:

https://web.archive.org/web/19970222090111/http://www.fqa.com:80/roman a/romanapix/pix.html. p.194.

- *Fig. 15.* Graphic of the extropian acronym BEST DO IT SO! in *Extropy* magazine. See: Max More, "Extropian Principles v. 2.5," *Extropy* 11 (Summer/Fall, 1993): 13. p.196.
- Fig. 16. Photograph of Nick Bostrom on a beach holding a ball. Photo appeared on an archived version of Nick Bostrom's personal website. Image archived November 10, 2000. Image credit: *BBC*. Photo appears on an archived version of Nick Bostrom's personal website. Image archived November 10, 2000. See: http://web.archive.org/web/20001110084900/http://www.nickbostrom.com/. p.212.
- *Fig.* **17.** Portrait photograph of Nick Bostom. Photo appeared on an archived version of Nick Bostrom's personal website. Image archived November 24, 2002. See: http://web.archive.org/web/20021124025351/http://www.nickbostrom.com/. p.214.
- *Fig. 18.* Portrait photograph of James Hughes. Photo appeared on an archived version of James Hughes' personal website. Image archived February 5, 2005. See: http://web.archive.org/web/20050205174234/http://www.changesurfer.com/Hughes.html. p.218.
- *Fig. 19.* Transhumanist artist Lilia Morales' "Fractalization of Dr. J." Image appeared on an archived version of James Hughes' personal website. Image archived February 5, 2005. See:

http://web.archive.org/web/20050205174234/http://www.changesurfer.com/ Hughes.html. p.218.

- *Fig. 20.* Image of a bumper sticker sold by the World Transhumanist Association. Image appeared on the WTA's website. Image archived March 5, 2005. See: http://web.archive.org/web/20050305054307/http://transhumanism.org/index.php/WTA/merchandise/. p.225.
- Fig. 21. Photograph of transhumanist politician Zoltan Istvan driving the Immortality Bus beside Roen Horn. Image credit: Nancy Borowick. Photo appeared in Mark O'Connell, "600 Miles in a Coffin-Shaped Bus, Campaigning Against Death Itself," New York Times, February 9, 2017, https://www.nytimes.com/2017/02/09/magazine/600-miles-in-a-coffin-

shaped-bus-campaigning-against-death-itself.html. p.262.

- *Fig. 22.* Photograph of Zoltan Istvan's Immortality Bus parked at a cemetery in Alabama. Image credit: Timothy Eastman. Photo appeared in O'Connell, "600 Miles." p.264.
- Fig. 23. Great Acceleration data collected by the International Geosphere-Biosphere Programme. "Socio-economic trends." See: Will Steffen et al. "The trajectory of the Anthropocene: The Great Acceleration." *The Anthropocene Review* 2, no. 1 (2015): 84. doi: 10.1177/2053019614564785. p.277.
- *Fig. 24.* Great Acceleration data collected by the International Geosphere-Biosphere Programme. "Earth system trends." See: Will Steffen et al. "The trajectory of the Anthropocene: The Great Acceleration." *The Anthropocene Review* 2, no. 1 (2015): 87. doi: 10.1177/2053019614564785. p.278.
- *Fig. 25.* Graph showing "Calculations per Second per \$1000—Exponential Growth of Computing for 110 Years." Graph by Ray Kurzweil. See: *KurzweilAI*, "Exponential Growth of Computing," April 9, 2010, <u>http://www.kurzweilai.net/exponential-</u>

growth-of-computing#!prettyPhoto. Graph also appears in *The Singularity is Near*. p.280.

Fig. 26. Cover of *TIME* magazine, September 13, 2013. See:

http://content.time.com/time/covers/0,16641,20130930,00.html. p.285.

- *Fig. 27.* Global AI Acquisitions and Mergers (\$bn), and Number of Transactions, 2011-2016. *The Economist*, December 17, 2016. See: <u>http://www.economist.com/news/business/21711946-ai-firms-main-value-</u> alphabet-new-kind-algorithm-factory-what-deepmind-brings. p.318.
- *Fig. 28.* Elon Musk Tweet. "Worth Reading Superintelligence by Bostrom." August 2, 2014, 7.33pm. See:

https://twitter.com/elonmusk/status/495759307346952192?lang=en. p.320.

- *Fig. 29.* Future of Humanity Institute Tweet. "@elon musk Glad you agree." August 3, 2014. <u>https://twitter.com/FHIOxford/status/495842424401313792. p.317</u>. p.320.
- *Fig. 30.* Oxford English Dictionary. Definition and etymology of "Transhumanism." Accessed November 19, 2018. See:

http://www.oed.com/view/Entry/247652?redirectedFrom=transhumanism#eid . p.341.

CONTENTS

Abstract	9
Introduction	

Part 1: Proto-transhumanist ideas

1.	17 th Century Proto-Transhumanism	. 27
2.	18 th Century Proto-Transhumanism	. 48
3.	19 th Century Proto-Transhumanism	. 67
4.	Proto-Transhumanism from 1900 to the Cold War	89
5.	American Proto-Transhumanism in the Cold War Period	117

Part 2: Modern transhumanist movements

6.	The Extropian Era	147
7.	Meet the Extropians	178
8.	The Democratic Turn	207
9.	Humanity+: Transhumanism Evolves	244

Part 3: Why transhumanism matters

10. The Transhumanist Explosion	. 271
11. A Tide in the Affairs of Biotechnology	. 297
12. Why Artificial Intelligence Matters	. 315

Conclusion

Back Matter

Appendix A: The Etymology of Transhumanism	341
Appendix B: The Transhumanist Declaration 2012	354
Glossary	355
Bibliography	362

Humanity looks to me like a magnificent beginning but not the last word.

—FREEMAN DYSON

Abstract

This thesis presents the first book-length history of transhumanism. I trace the roots of proto-transhumanist thinking back to the Scientific Revolution and explore major examples of proto-transhumanist thought up to the late twentieth century. I then chronicle the origin and evolution of the first modern transhumanist movements and ideas. Finally, I demonstrate that transhumanist ideas and technologies are now fundamental features of the modern world and argue that we should take them very seriously, as they have the potential to profoundly influence how the human future unfolds.