

Data Doppelgangers and the Search for Immortality

Dessa Bayrock
Ph.D. Student in English
at Carleton University

“And who knows what lies in wait for the Internet’s next Great Leap Forward?”

—Douglas Coupland, *Shopping in Jail*

The prospect of immortality has been alluring and fascinating since man has been able to conceive of his own death. Myths and fantastic tales immediately spring to mind: the Holy Grail, for instance, or the portrait of Dorian Grey, or Elizabeth Bathory, better known as the Blood Countess, who earned her title by famously bathing in the blood of virgins in the quest for everlasting youth. Although these tales are dubious at best and ghastly at worst, the tantalizing promise of immortality continues to hold power in contemporary imagination. Anti-aging science and the ever-evolving landscape of technology make the idea of living forever more plausible than ever before; while it remains impossible, immortality continues to be researched in labs and dissected in the narratives of pop culture. Take, for instance, the posthuman theory that individuals may one day be made immortal through “upload”; the cloud, has the capacity to store a staggering amount of data, so why not overcome the frighteningly impermanent nature of physical consciousness by digitizing it? The digital world already records and preserves personal data in what Gordon Bell and Jim Gray refer to as one-way immortality: a monument, a static arrangement of information, a great work that can be linked to an individual and preserve their memory for generations to come.¹ Upload more and better information to the cloud, activate it like an app, and the result could be two-way immortality: a preserved and sentient digital self which is able to grow, evolve, and interact with the world in much the same way it did in its biological shell.

¹ Gordon Bell and Jim Gray. "Digital Immortality." Microsoft Research Technical Report MSR-TR-2000-101 (200): 1-4. Web.

Certain sects of posthumanism suggest that this “upload” will prove to be the next evolutionary step for humankind, and that “the relation between carbon man and the silicon devices he is creating is similar to the relation between caterpillar and the iridescent, winged creature that the caterpillar unconsciously prepares to become.”² Physical consciousness is inherently fragile and frighteningly impermanent—subject to bumps, knocks, hijacks, amnesias, and a host of other errors and erasures. It’s no surprise that critics are eager to frame technology-founded, digital two-way immortality as the next logical step in human evolution. Yet this view of digital immortality is idealistic, as well as problematic. It callously abandons the biological body, for example, and assumes that information can be translated from brain to digital host without losing something in the process. Even as technology brings digital immortality closer than ever before the concept itself remains rife with issues, some of which this paper seeks to catalogue and interrogate. What are the consequences of abandoning a physical, biological form? How accurately and completely can digital information represent an individual? And even assuming the translation from biological to digital self is both possible and desirable, would a digital individual still face threats and obstacles which make immortality an impossibility?

The Meaning of Life and The History Of Life After Death

Discussing the possibility of life after biological death requires a definition of life before biological death; discussing the possibility of life existing purely in a digital context requires a discussion of life in a physical context. This is as slippery as immortality itself; as Eugene Thacker puts it, “[t]he moment [that life] is examined it recedes beyond a fog of intelligibility - either a *reducto ad absurdum* (e.g. does a cell have a right to life?) or a sublimation into an abstraction (the ‘good life’, the life worth living).”³ The most common conception of “life” depends on a biological body, which is unsatisfactorily oversimplified here. A better foundation might be Thacker’s explanation of life as more than an “ambivalent conjunction of biology and politics,” something “being extended across broad swathes of social, economic and cultural existence,”⁴ a description

² O. B Hardison. *Poetics and Praxis, Understanding and Imagination: The Collected Essays of O.B. Hardison, Jr.* (Athens: U of Georgia, 1997), 383.

³ Eugene Thacker. “After Life: De Anima and Unhuman Politics.” in *Radical Philosophy* 155:31 (2009). 31.

⁴ *Ibid.*, 32.

echoed in Karin Knorr Cetina's explanation that life is "an open-ended series of biological, psychological, economic and even phenomenological significations and processes."⁵ Biology is an important part of the definition, but digital life could easily fulfil the other qualifications, creating or supporting an individual whose interactions with the world continue to spark psychological, economic, social, and cultural effects in the individual and the world around them. The discontinuation of biological life does not have to mean the discontinuation of knowledge or humanity; society could well continue purely as a collection of digital entities, assuming the technology exists to port the world's citizens to the cloud.

While Knorr Cetina admits that "with the certainty of [biological] death is in some sense central to what it means to be human," she positions death as a motivating force for creation and betterment; in a way, individual death can be overcome "by collective rationality and the reproductive success of populations."⁶ Traditionally, this motivation results in the pursuit of one-way immortality and the creation of something lasting, useful, or necessary for the next generations. Individuals seek to outlast their biological lives by living on in long-lasting and/or public effects: creating works (of art, literature, science, research) which will outlast the individual, or else creating children, which serves as a form of biological immortality. Life has long extended past its individual biological boundaries; digital immortality, in which the individual would be preserved past the death of their biological bodies, is simply a new (and more interactive) extension.

The Alluring Possibilities of Technology

Douglas Coupland notes "some people believe the Internet now occupies the slots in your brain once occupied by politics and religion."⁷ The online world – seven billion people and counting – is a new conduit for conversation, connection, and community. This community is able to inspire feelings of awe in a similar way religion inspires awe: the awe of being simultaneously dwarfed by and accepted by something larger and better than yourself – a technological sublime. The Internet won't replace

⁵ Karin Knorr Cetina. "The rise of a culture of life." in EMBO reports. Volume 6, Issue S1 (July 2005). N.p.

⁶ Ibid., N.p.

⁷ Douglas Coupland. *Shopping in Jail: Ideas, Essays, and Stories for the Increasingly Real Twenty-first Century*. (Berlin: Sternberg, 2013), 60.

religion but it can affect some of its users in similar ways. And as William Sims Bainbridge notes, the language used to describe a user's presence online denotes another connection between the digital world and the immortal soul. Early in the history of computer science, programmers adopted use of the word "avatar" to refer to the user's on-screen counterpart; the fact that this term originates in Hinduism "hints at the possibility that information technology offers a form of transcendence."⁸ Religion aside, the most promising feature of current, contemporary, common technology is its immense storage space and its ability to catalogue and access data quickly. "Data storage has become so cheap that it's feasible to save a quantity of information that would have been previously unimaginable," writes Nora Young.⁹ It is no longer expensive and arduous to store or access great amounts of data; it has become so easy to create and store data that nearly every online move results in a corresponding data trail, resulting in an era of passive data generation. Science fiction author William Gibson described this effect as early as 1986. He writes, "We're in an information economy. They teach you that in school, what they don't tell you is that it's impossible to move, to live, to operate at any level without leaving traces, bits, seemingly meaningless fragments of personal information. Fragments that can be retrieved, amplified."¹⁰ This information can be used to predict preferences, manipulate reactions, and feed personalized content to consumers. This cache of data simultaneously works for the individual, as a sort of personal assistant, and for corporations and other collectors "start linking up and connecting the breadcrumb trails we leave behind" in order to track and monetize consumer preferences – taking advantage of a user's digital data in a way that does not necessarily serve their best interests.¹¹

However, this data may be used to achieve one-way immortality: an archive of personal data that can be used to memorialize a deceased individual. In an example already present in today's digital world, the

⁸ Bainbridge, William Sims. *An Information Technology Surrogate for Religion: The Veneration of Deceased Family in Online Games*. (New York: Palgrave MacMillan, 2014) vii.

⁹ Nora Young. *The Virtual Self: How Our Digital Lives Are Altering the World around Us*. (Toronto: McClelland & Stewart, 2012) 88.

¹⁰ William Gibson. *Burning Chrome*. (New York: HarperCollins, 2003) 22.

¹¹ Steve Smith. "My Internet, My Self." *Econtentmag*. N.p., 5 June 2007. Web. 30 Nov. 2015.

Facebook walls of deceased users are commonly used as a platform for mourning. "I know he's dead, no longer physically able to read his wall posts or check his messages," Facebook user Rebecca Barlow told a reporter regarding a deceased childhood friend. "But like a gravestone covered in flowers or notes, Facebook is letting some of us grieve without having to be there."¹² In another interpretation of digital one-way immortality, Bainbridge explores the effectiveness of technology-based memorialization by recreating a selection of his dead relatives as characters within massive multiplayer role-playing games (MMORPGs). Many of the obstacles he encountered during the project sprang from the fact that his relatives lived and died in a non-digital era, and subsequently recorded little information about their lives that remained easily accessible.¹³ Contemporary digital memorialization has fewer issues, since the data available to digital-era memorialists is exponentially larger than would have been twenty or even ten years ago. As Nora Young writes in *The Virtual Self*, the digital self "is the sum of all these status updates about how you are feeling, what you did, how you moved, how long you spent reading PerezHilton.com compared to The New Yorker online."¹⁴ This digital self, while static, remains accessible after the death of the individual it reflects, allowing for a more detailed portrait of the deceased – and a more complete form of one-way immortality.

However, while data can and will be preserved, a set of data in and of itself is not capable of experiencing "life": not biologically, not economically, not politically, not culturally, and not socially. Furthermore, while more data per individual is preserved than ever before, this archive of data does not necessarily accurately reflect the individual who created it. Bainbridge charts his struggles working with physical documents and the fallible memories of others, noting that these archival limitations likely led him to idealized versions of his dead relatives rather than necessarily accurate ones.¹⁵ Memory's tendency to fail or idealise extends to memories housed in digital data. Young recognizes a disparity between objective and subjective data, and

¹² Kristina Kelleher. "Facebook Profiles Become Makeshift Memorials." New York Times. N.p., 22 February 2007. Web. 30 Nov. 2015.

¹³ Bainbridge, *An Information Technology Surrogate for Religion*.

¹⁴ Young, *The Virtual Self*, 76.

¹⁵ William Sims Bainbridge. *An Information Technology Surrogate for Religion: The Veneration of Deceased Family in Online Games*. (New York: Palgrave MacMillan, 2014), 4.

identifies the importance of separating the facts of an individual from the identity they actively cultivate and present to those around them. “Human beings create narratives about who we are in order to communicate to ourselves, and to others, what matters to us,” she writes. The digital memorialist must recognize a difference between hard facts and “the subjective stories we tell.”¹⁶ It proves impossible to completely and accurately recreate an individual purely from the data trail they leave behind, even if that data trail has increased drastically in the time between Bainbridge’s project and Young’s examination of self-tracking. The only way to create or preserve a complete and accurate individual would be by somehow uploading every single piece of their identity to a digital platform – a concept which circles back to two-way immortality and the allure of continued consciousness and life.

What to Do with the Parts of the Body?

Even assuming data from an individual can be recorded or copied accurately and completely enough, could it be possible to recreate an indistinguishable digital version of that individual from the data? The temptation to see this as an obvious stage in human evolution is what Eugene Thacker calls the “extropian approach” in posthumanism. This theory relies (not unproblematically) on the idea that “technological progress will necessarily mean a progress in ‘the human’ as a species and as a society; that is, just as the human will be transformed through these technologies, it will also maintain, assumedly, something essential of itself.”¹⁷ The opposing argument is that either none or not enough of this “something essential” will be saved: instead of extending or transforming life, this approach could exclude or destroy some important aspect of the individual during upload.

This possible issue stems from the foundational extropian view of the world as something that can be reduced to information; as Thacker notes, “the extropian concept of uploading ... takes the material world as information”¹⁸ without acknowledging this view of the material world as purely informational ignores anything that may be “filtered or transformed in that process—such as a notion of the phenomenological,

¹⁶ Young, *The Virtual Self*, 77.

¹⁷ Eugene Thacker. “Data Made Flesh: Biotechnology and the Discourse of the Posthuman.” *Cultural Critique*, No. 53. Winter 2003. 75.

¹⁸ *Ibid.*, 80.

experiential body.”¹⁹ As McLuhan famously states, the medium is the message; it’s impossible to transform the format without transforming the content as well. Translating an individual from physical, biological existence to purely digital, informatic existence is not a balanced equation, and this is the flaw in the extropian assumption that an individual can be reduced to a string of ones and zeroes without losing what it means to be human. “Just as the quantity “information” is assumed to unproblematically signify the message, so is the medium assumed to unproblematically mediate information,” as Thacker explains. In reality, both message and medium would be altered in the transformation from physical to digital form, although in what way and to what extent remains unclear. Hayles warns against the assumption (central to both extropian posthumanism and first-wave cybernetics) that information remains constant as it moves from one place to another. “Shannon and Weiner wanted information to have a stable value as it moved from one context to another,”²⁰ she writes of early cybernetic theorists. “Even assuming such a separation was possible,” she continues, “how could anyone think that consciousness in an entirely different medium would remain unchanged, as if it had no connection with embodiment?”²¹

This issue is commonly glossed over by the exultant optimism of extropian thinking and the drive towards immortality through digital upload. Hayles quotes and critiques a 1996 lecture delivered by Marvin Minsky in Japan, hyperbolically titled “Why Computer Science is the Most Important Thing That Has Happened to the Humanities in 5,000 Years,” to illustrate this point:

The most important thing about each person is the data, and the programs in the data that are in the brain. And some day you will be able to take all that data, and put it on a little disk, and store it for a thousand years, and then turn it on again and you will be alive in the fourth millennium or the fifth millennium.²²

¹⁹ Ibid. 80.

²⁰ N. Katherine Hayles. *How We Became Posthuman: Virtual Bodies in Cybernetics, Literature, and Informatics*. (Chicago: U of Chicago, 1999) 43.

²¹ Ibid., 1.

²² Marvin Minsky. “Why Computer Science is the Most Important Thing That Has Happened to the Humanities in 5,000 Years,” Nara, Japan, May 15, 1996.

It is possible to forgive the oversimplified assertion that a mind-to-computational-data transfer will one day be possible; Minsky's foundational point is more suspect. Is "the most important thing about each person is the data, and the programs in the data that are in the brain"? Why does he so easily assume the biological, physical body can be abandoned as easily as stepping out of a set of clothes? Hayles sees this separation of body and consciousness as particularly nightmarish, describing this theoretical upload as "a kind of cranial liposuction."²³ Young takes up this view in a similar tone, even if her argument is more sentimental. "Knowledge doesn't live simply in data or simply in our heads," she writes. "We know the world around us not by what the pedometer count says but by how it feels to be in this body right now."²⁴

The Play and Process of Digital Immortality in Literature

Since upload and two-way digital immortality remain impossible, one of the best ways to consider its product and effects is through its role in literature and other pop culture narratives. "Literary texts are not, of course, merely passive conduits," as Hayles states. "They actively shape what technologies mean and what scientific theories signify in cultural contexts."²⁵ A good example is the way William Gibson's imagining of cyberspace subsequently shaped real-life three-dimensional virtual reality; another can be spotted in the way Isaac Asimov accurately "predicted" the colour of the first calculator's digits—which, of course, engineers modelled after his description. The ways we consider and critique the extropian "upload" in literature today may well describe its operation and appearance in the future.

Unsurprisingly, many examples of digital immortality in contemporary narratives draw on the same optimism found in Minsky's assertion that individuals will one day live for centuries on a disk drive. Many narratives frame the transition from biological to digital as a natural progression of technology, but simultaneously back away framing it as the next step in human evolution. Assuming that the technology exists, the most formidable obstacle of two-way digital immortality is its unsettling ramifications for those who interact with the digitized individual. Prominent examples in contemporary narratives portray the

²³ Hayles, *How We Became Posthuman*, 1.

²⁴ Young, *The Virtual Self*, 95-6.

²⁵ *Ibid.*, 21.

upload as deeply uncanny, echoing Hayles' horrifying description of "cranial liposuction."

The portrayal of a character struggling to relate to a recently digitized friend in Gibson's short story "The Winter Market" serves as a specific example of this unsettling feeling. He is put off by "a program that pretends to be Lise to the extent that it believe it's her," and is ultimately unable to come to grips with the idea of consciousness without a body.²⁶ Despite this digital doppelgänger's ability to call, speak, think, and even create art in the same way as the individual it represents, the other characters in the story are uneasy to equate the two:

"Rubin, if she calls me, is it *her*?"

He looks at me a long time. "God only knows." His cup clicks on the table. "I mean, Casey, the technology is there, so who, man, really who, is to say?"²⁷

In "The Winter Market," Gibson posits that the separation springs purely from a perception of fraud rather than the fraud itself. While the feeling of the uncanny persists in the face of otherwise perfect replication, the difference remains because others are aware of it. "Perhaps the most important question will be whether or not an uploaded human brain is really you," Ray Kurzweil muses. "Even if the upload passes a personalized Turing test and is deemed indistinguishable from you, one could still reasonably ask whether the upload is the same person or a different person"—returning the discussion to the question of how information is changed by its medium and its context.²⁸

Another example of two-way immortality appears in the 2015 film *Chappie*, which climaxes with the transference of a human character's consciousness into a robot body. This particular example is optimistic and is not perceived as uncanny or unsettling by the other characters in the film. This lack of unsettled sentiment could be due to several reasons. For instance, the upload is very nearly the last thing to happen in the film, and the audience is not shown how others react to the idea of human consciousness in a robot body. The film also positions the viewer to be sympathetic of the upload, subsequently glossing over and ignoring the existential issues that might arise from such a procedure. "If it fails, the

²⁶ Gibson, *Burning Chrome*, 148.

²⁷ *Ibid.*, 149.

²⁸ Ray Kurzweil. *The Singularity Is Near: When Humans Transcend Biology*. (New York: Viking, 2005), 201.

only two quasi-likable characters in the film are going to die,” critic Jeff Saporito writes. “So yeah, it works.”²⁹ The film guides the viewer into an uncomplicated, unproblematic view of the upload as the simple transfer of information from one place to another – a simplified view of digitization keeping with extropian optimism.

As Eric Thurm notes, however, the protagonist’s digitization would not be easy for him to adapt to and accept, and nor would it be easy for those around him. The film’s optimistic climax succeeds only by ignoring key issues with the upload.

The movie places humanity at the brink of transcendence, but it does so seemingly without considering what might happen when a mind is divorced from its bodily vessel, or how it would change the way we consider ourselves human. At one point, human characters find themselves in such a situation—yet they don’t remark on their inability to smell, taste, or touch.³⁰

Chappie’s climax entirely ignores what must be a shocking caesura of sensation; while retaining his ability to speak, see, and hear, this newly post-human character has completely lost the abilities of taste, smell, and touch. Rather than proving problematic, consciousness is well able to continue on without its meaty shell. The mind is saved and therefore immortality is achieved, even if it is literally “sans teeth, sans eyes, sans taste, sans everything,”—to echo Shakespeare’s description of death.³¹

The Concluding Flaws of Digital Immortality

This catalogue of digital immortality’s theories and flaws returns, sooner or later, to what Hayles refers to as a fundamental question: “Is the change from human to post-human an evolutionary advance or a catastrophe of unprecedented scope?”³² The answer is both, or else neither. Extropian theory ignores the subtleties and difficulties in accurately moving information from a biological host to a digital

²⁹ Jeff Saporito. “Does Chappie Cast a Positive or Negative Light on Potential for Immortality through Technology.” in *Screenprism* (Web: 1 June 2015), n.p.

³⁰ Eric Thurm. “Chappie Is Loud, Messy, and Surprisingly Radical” on *Wired.com*. (Web: 03 Apr. 2015) n.p.

³¹ William Shakespeare. *As You Like It*. (Cambridge, UK: Cambridge UP, 2000), II.vii.

³² Hayles, *How We Became Posthuman*, 280.

platform, which seems to suggest catastrophe; treating digital preservation as useless or catastrophic ignores the successful use of digital information for memorialisation, which, after all, is a subset of one-way immortality.

And all sides seem to ignore the fact that digitizing information of any sort does not ensure it will last forever. Information is inherently fallible; in its own way, it is as fragile as a biological, physical consciousness. “If we are diligent in maintaining our mind file, making frequent backups and porting to current formats and mediums, a form of immortality can be attained, at least for software-based humans,” Kurzweil says.³³ But simply because information is preserved does not mean it will be accessible, and this is a death of another kind: to have information lying dormant behind a broken link. Kurzweil laments the inaccessibility of the disorganized physical archive he inherited from his parents; even as he expands it with his own boxes of documents, he has given up on the idea of retrieving data from the papers. This issue remains inherent in any archive, digital or physical; information becomes useless if disorganized. “The answer is simply this: *Information lasts only so long as someone cares about it,*” Kurzweil asserts, emphasis his own.³⁴ “By extension, we can only live for as long as we care about ourselves.”³⁵ The implication puts the onus of upkeep on the digital self – but even the most diligently maintained technology has been known to fail. The digital form is just as susceptible to viruses as a physical one. No matter the angle of approach, the conversation surrounding upload ends in the same place: it remains impossible. Optimistic? Yes. Alluring? Yes. But true, two-way, digital immortality has myriad issues which require addressing before it can become anything close to a reality – if it ever does.

³³ Kurzweil, *The Singularity is Near*, 325.

³⁴ *Ibid.*, 330.

³⁵ *Ibid.*, 325.

Works Cited

- Bainbridge, William Sims. *An Information Technology Surrogate for Religion: The Veneration of Deceased Family in Online Games*. New York: Palgrave MacMillan, 2014. Print.
- Bell, Gordon, and Jim Gray. "Digital Immortality." Microsoft Research Technical Report MSR-TR-2000-101 (200): 1-4. Web.
- Cetina, Karin Knorr. "The rise of a culture of life." *EMBO reports*. Volume 6, Issue S1 (July 2005): S76-S80.
- Coupland, Douglas. *Shopping in Jail: Ideas, Essays, and Stories for the Increasingly Real Twenty-first Century*. Berlin: Sternberg, 2013. Print.
- Gibson, William. *Burning Chrome*. New York: HarperCollins, 2003. Print.
- Hardison, O. B., and Arthur F. Kinney. *Poetics and Praxis, Understanding and Imagination: The Collected Essays of O.B. Hardison, Jr.* Athens: U of Georgia, 1997. Print.
- Hayles, N. Katherine. *How We Became Posthuman: Virtual Bodies in Cybernetics, Literature, and Informatics*. Chicago, IL: U of Chicago, 1999. Print.
- Kelleher, Kristina. "Facebook Profiles Become Makeshift Memorials." *New York Times*. 22 February 2007. N.p.
- Kurzweil, Ray. *The Singularity Is Near: When Humans Transcend Biology*. New York: Viking, 2005. Print.
- Marvin Minsky, Public Lecture, "Why Computer Science is the Most Important Thing That Has Happened to the Humanities in 5,000 Years," Nara, Japan, May 15, 1996.
- Saporito, Jeff. "Does *Chappie* Cast a Positive or Negative Light on Potential for Immortality through Technology." *Screenprism*. N.p., 1 June 2015. Web. 7 Dec. 2015.
- Shakespeare, William. *As You Like It*. Cambridge, UK: Cambridge UP, 2000. Print.
- Smith, Steve. "My Internet, My Self." *Econtentmag*. N.p., 5 June 2007. Web. 30 Nov. 2015.
- Thacker, Eugene. "After Life: De Anima and Unhuman Politics." *Radical Philosophy* 155:31 (2009): 31-40.
- . "Data Made Flesh: Biotechnology and the Discourse of the Posthuman." *Cultural Critique*, No. 53 (Winter 2003): 72-97.

- Thurm, Eric. "Chappie Is Loud, Messy, and Surprisingly Radical."
Wired.com. N.p., 03 Apr. 2015. Web. 7 Dec. 2015.
- Young, Nora. *The Virtual Self: How Our Digital Lives Are Altering the
World around Us*. Toronto, Ont.: McClelland & Stewart, 2012.
Print.