# 10

# TechnoTopia

## The Convergence of Art and Technology in the Twentieth Century and Beyond

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In her book *The Concept of Utopia*, Ruth Levitas writes that utopia is "the expression of desire for a better way of living and being."[1] Accepting her formulation as a starting point, the question I raise here is: what informs that "desire for a better way of living and being"? That is, what are the grounding principles that shape a desire for a better way of living and being? In this chapter, I address this question to three artists who self-consciously envisioned an aesthetic and cultural utopia in light of the defining technologies of the twentieth century. At a time when technology was redefining the nature of civilization and the human experience itself these artists cast a vision of where they believed the convergence of art and technology would take humanity.

The three artists I consider are the Italian Futurist F.T. Marinetti, the British computer-artist pioneer Roy Ascott, and the Australian posthumanist artist Stelarc. Each offers a unique vision of this aesthetic and cultural ideal—their version of technotopia—in light of revolutions in industry, information technology, and the human-computer interface. And although the voice and vision of each artist is different, they each implicitly affirm what I call an aesthetic of technological atheism in place of a theological

1. Levitas, *The Concept of Utopia*, 91.

aesthetic of transcendence as both an artistic and cultural ideal. And it is precisely because these artists regarded the technological revolutions of their day as displacing transcendence that I have selected have selected them for consideration. My aim is to understand how these forward-looking artists who embraced the technological changes of the twentieth century believed that that technology would (or should) reshape the face of culture. As we move further into the twenty-first century and encounter increasingly radical technological revolutions, understanding this trajectory is imperative for any appreciation of the assorted technotopian ideals that lay ahead.

I unpack these ideas in three brief sections. Section one introduces the artists and the particular essay from each that is the subject of what follows. I have also incorporated into this section a cursory defense of my selection of these artists, following which, I discuss each essay in greater detail, lifting from each the common, yet distinctly formulated, usurpation of transcendence by technology as a defining principle of their respective visions of an aesthetic and cultural utopia. The second section pulls their three different articulations of this displacement together in a configuration of their respective visions of industry, information, and interface as constitutive of a technotopian ideal. The third section then offers a response to these authors and the dilemma of proposing an aesthetic or cultural utopia according to the ideals of theology or technology.

However, to preface these three sections I will clarify what I mean by transcendence and technological atheism. Transcendence has become something of a circumlocution for those who are uncomfortable with the implicit confidence of words like God, divinity, or even the holy. The language of transcendence has an almost geographical feel to it, as though it referred to a small town in rural New Mexico and not the principle and defining nature of the Absolute. In short, it is theology in philosophical clothing.

After the Renaissance, the idea that the arts were simply the handmaid of religion lost almost all credibility as faith and morality were increasingly regarded as private affairs and the arts flourished independent of their ideological service. During the eighteenth and the nineteenth centuries philosophers like Schelling, Schleiermacher, Hegel, Kierkegaard, and later, Walter Pater, saw the arts as propaedeutic to religion *qua* abstract civic morality rooted in the heart's supposed innate love for the beautiful and the transcendent. At roughly the same time, Romantic poets and artists like Novalis, the Schlegel brothers, Casper David Friedrich, Gericault in France, and Ruskin in England began to formalize a vision of the arts as the mysterious work of genius in its longing for the transcendence that was the true heart of religion.

Transcendence and the language of the spiritual took the place of institutional religion and theology as the essential *topos* of the aesthetic and *telos* of culture. The philosophical construction of transcendence lacked the historical particularity that made organized religion unsavory and offered instead the universal abstracted core that purportedly animated all *true* religion. Transcendence conjures Otto's *mysterium*, Schleiermacher's feeling of absolute dependence, Novalis' *Liebesreligion*, Casper David Friedrich's infinitude, and even Kandinsky's "soul of the epoch of the great spiritual."[2] And for nearly two centuries it has served as the intellectual currency of modern theology without the burden of sacraments or dogma—and it is in full acknowledgment of this that I employ the term here.

Conversely, by technological atheism I intend the absence of belief in transcendence as the concomitant yet inverse of belief in a technological ideal. This technological ideal need not correspond to any particular technological artifact, but rather, in the spirit of Heidegger's "The Question Concerning Technology," it reflects an overall approach to life that "challenges-forth" calculative ends from a world of "disposable" "standing reserves."[3]

The essence of technological atheism is thus objectification pursuant to potential utility according to a wholly immanent teleology. Within this schema nothing supersedes what Heidegger called "calculative thinking" in "the triumph . . . [whereby] what possesses real worth, what should orient actions and social relations, is the extension of human power to shape and create realities."[4] The guiding principle of this shaping and creating is power and progress itself, even when it comes into conflict with the being of the human being whom this progress would ostensibly serve.



## SECTION I

F. T. Marinetti wrote the founding manifesto of Futurism in 1909. Roy Ascott wrote "The Cybernetic Stance: My Process and Purpose" in 1968. And Stelarc wrote his "Postevolutionary Strategies" in 1991. In these three artists we have representatives from across the globe—Italy, Britain, and Australia—and spanning the twentieth century. That being said, this is an admittedly select group and is by no means intended to stand-in for all of the artists thinking through the convergence of art and technology during the twentieth century. Nonetheless, I focus my attention on these three because each in their own way made their project as an artist the task of envisioning

2. Kandinsky, *Complete Writings on Art*, 219.
3. Heidegger, "The Question Concerning Technology".
4. Klemm and Schweiker, *Religion and the Human Future*, 14.

an artistic and cultural utopia in light of the defining technologies of their day. For each, technology was not only an element of their artistic process or product. Rather, each person's entire artistic project orbited about the ideal advancement of the intersection of art, technology, and culture. Additionally, they share a uniquely optimistic strand of thought around the aesthetic and cultural possibilities for a coming technotopia. Considered together, they present a three-fold creative lineage of thinking and making around the question of the future of art and culture in the wake of three key technological revolutions.

This artistic and intellectual genealogy is tethered to three different technological innovations: the industrial machine, networked information technologies, and revolutions in the human-computer interface (HCI). Marinetti's writing reflects a violent embrace of industrial age technologies as the future not just of the arts, but of human civilization. Ascott's prophetic vision of what he called a Cybernetic Art Matrix foresaw, in his words, a "world brain [in] which instant-information technology"[5] would revolutionize how we create, communicate, and collaborate. Lastly, Stelarc's declaration of "postevolutionary strategies" recognized that this information matrix was rapidly being internalized and that the body itself was becoming the very interface for a networked instant-information technotopia.

## Marinetti

Marinetti was principally a poet, thus his inclusion here is perhaps a bit odd. However, I include him for two reasons. First, his 1909 essay which I consider here effectively founded the Futurist movement as the first movement in the visual arts explicitly aligned with the aesthetics and culture of modern technology. Second, a year later in 1910 Marinetti published "Futurist Painting: a Technical Manifesto" wherein he articulated, among other things, 13 principles of painting all of which orbit about his admonition that artists express the "whirling life of steel, or pride, or fever, and of speed."[6] Thus Marinetti's writing defined an arena of the visual arts even if he himself was predominately a writer.

"The Founding and Manifesto of Futurism" was written at a time when Italy was largely being left out of the industrial revolution of the early twentieth century. The *Manifesto* was thus in part a statement on how Italy and, by implication, influential Italian artists were going to (or should) address the revolutionary technologies of the industrial age. Marinetti's *Manifesto*

5. Ascott,"The Cybernetic Stance," 111.
6. Marinetti, "Futurist Painting," 534.

declared that the arts should neither be overrun nor fearful of the new technologies of steel and speed, but instead should embrace them, indeed celebrate them, and thereby make them a centerpiece of the aesthetic and cultural identity of the new age.

The *Manifesto* begins by declaring, "We're about to see the Centaur's birth."[7] This centaur is what Hal Foster describes as the first twentieth century "technological subject, as the Futurists emerge as . . . half men, half machines."[8] Indeed, in his *Manifesto* Marinetti describes his own resurrection after a car crash as his body, which he likens to the automobile itself, is pulled from a ditch. He writes, "When I came up—torn, filthy, and stinking, from under the capsized car, I felt the white-hot iron of joy deliciously pass through my heart."[9] And thus the artist and the arts themselves are reborn in a glorious technological embrace that merges man and machine.

Marinetti continues, "Let's Go! Mythology and the Mystic Ideal are defeated at last . . . We must shake at the gates of life, test the bolts and hinges. Let's go!"[10] With the dawning of the new millennium Marinetti foresaw the fall of mystic ideals as the old gods of mythology were displaced by the aggressive "beauty of speed." As such, aggressive and uncompromising technological progress would be the watchwords of the technotopia of the future and thus the artistic movement that bore the future's name.

For Marinetti, the industrial machine *par excellance* was the then-revolutionary automobile which he celebrated in the race car with its "hood adorned with great pipes, like serpents of explosive breath . . ."[11] For Marinetti, machines of all types, but cars in particular, were extensions of the human subject's own powers and amplifications of our own impulses.

For Marinetti, and those who followed after him, the tired cultural aesthetic of subtle transcendent beauty housed in the secular sanctuaries of museums was being displaced by the militant march of the machine. Marinetti writes that, "We already live in the absolute, because we have created eternal, omnipresent speed."[12] The absolute, absent the removed aspect of the divine (transcendence), is re-envisioned as the industrial epoch of "arsenals and shipyards . . . greedy railway stations . . . factories hung on clouds . . . bridges that stride the rivers . . . adventurous steamers . . . deep-chested

7. Ibid., 19.
8. Foster, "Prosthetic Gods," 11
9. Marinetti, "The Founding and Manifesto of Futurism," 19.
10. Ibid., 19.
11. Ibid., 20.
12. Ibid., 22.

locomotives . . . and the sleek flight of planes . . ."[13] Industry and its machines were the perfection and protraction of humanity, extending their power into the future and displacing the disguised theological ideal of transcendence with the brute and pragmatic potency of technology.

## Ascott

Digital computing was the most culturally significant technological invention in the sixty years between Marinetti's Futurist manifesto and Roy Ascott's "Cybernetic Stance." At the heart of this digital revolution was the realization that everything from the Bible to Beethoven's 5th could be transformed into computable bits of data; a string of ones and zeros.

Ascott has been working at the intersection of technology and the arts for over fifty years. He began incorporating the earliest digital computing devices and paradigms into his art practice in the 1960s. By 1968, when he wrote "Cybernetic Stance: My Process and Purpose," information technology was already a cornerstone of his art practice. Ascott continues to chart new territory in new media art as Professor of Technoetic Arts at Plymouth University in the UK.

In his 1968 statement on his "Process and Purpose" Ascott begins, like Marinetti, by acknowledging that his is an essentially forward-looking art practice. He writes, "The paradox we face as artists writing about our work is that the future is all that interests us, and that is precisely the part of our activity which must remain necessarily unpredictable."[14] Nonetheless, looking to the future Ascott saw an information revolution ushered in by new computing technologies; a culture defined by data. The major implication for the arts would be, as he saw it, the rise of what he called "process-oriented" art.[15] That is, art that will build on the transferability of information and the possibilities afforded to artistic practice when the limitations of space are eliminated.

In particular, Ascott suggested that as our cultural value is increasingly figured on the basis of calculable information, who we are and what we produce will be less and less important. Rather, attention will turn to the systems and processes we create and participate in at the level of measurable behavior, which can be refigured as documentable information. As he says, "Today [1968] we are concerned less with the essence of things as with their behavior; not with what they are but what they do. This unified tendency

13. Ibid.
14. Ascott, "The Cybernetic Stance," 105.
15. Ibid.

is evidently behavioural, and we can see how the vision of our time is ultimately cybernetic."[16] Here, Ascott forecasts, as did Marinetti, the substitution of some absolute, yet ineffable transcendent essence for the tangible, and ultimately quantifiable, bits of information technologies. To that end, Ascott called for a Cybernetic Art Matrix (CAM).

As Ascott envisioned it, the Cybernetic Art Matrix would be an ongoing "process for generating processes, a self-organizing system, a learning organism." He explains that, "This self-creating artform, in which human beings are their own media (properly extended and amplified with technology and bio-chemical hardware), constitutes a cybernetic art process, capable of growth and change."[17] Thus, whereas Marinetti saw the machine technologies of the industrial revolution as bodily extensions transforming the speed of walking into the speed of a racecar, Ascott reverses this formula by proposing the computing technologies of the information revolution as the model for refiguring, for reimagining, the analog body. That is, rather than considering a race car an expansion and extension of limited human speed, Ascott goes the other way round by using the paradigm of quantifiable information as the model by which we might understand embodied identity in the new digital age. Consequently, an extension of the self and its activities is an extension of and as information.

It is not simply that technology amplifies the embodied self. Rather, the embodied self is conceptually rendered as information—it becomes the technology—and only then is it extended; again, as information. Thus for Ascott, the future of art and, as he would later argue, the future of digital culture, is one where information technologies constitute the final paradigm for any mode of self-world or self-other engagement. And although he was writing almost a decade before the release of the first personal computer, in many ways he was right.[18]

Consider, for instance, the extent to which we today must comport ourselves to our digital technologies in order to engage with others or with our world at large. By way of simple and admittedly anecdotal evidence, if your cell phone rings, do you feel like you have answer it? Or if you get a text message, do you feel you must glance at the screen? If so, who is in charge in that relationship, you or the technology? Or, perhaps more plainly, consider the extent to which our relationships with people and things alike are mediated through digital technology and the Internet, which Ascott,

16. Ibid., 106.

17. Ibid., 111.

18. This assumes the Commodore PET, released in 1977, and the Apple II, also released in 1977, to be the first successful release of a personal computer.

some twenty years before the World Wide Web, presciently called the "world-brain." This world-brain runs on information and to engage it we must become information.

Unlike Marinetti's industrial model that saw the technologies of industry as monumental extensions of human power, Ascott saw the coming digital revolution as an informationalization of human power, knowledge, and identity pursuant to a self-perpetuating cybernetic utopia constituted and animated exclusively through the hive-like processes of informational interactions.

Ascott anticipated that as digital technology and the information it feeds on and produces became the dominant cultural paradigm, those works of art engaged at the intersection of technology and culture would mirror this data-processing orientation as process assumed the place of artistic product. The aesthetics of transcendence, and any latent theology that supported it, will be (and has been) displaced by a technological determinism that only recognizes the processes of its own algorithmic commands. The self-perpetuating informational art and culture he envisioned has neither need nor room for extrinsic justification or motivation. It is a closed, information only system. Thus what I am calling technological atheism comes in the form of digital progress itself, displacing any *telos* (theological or otherwise) that does not accord with the cybernetic matrix and the demands of the informational platform that ultimately supports it.[19]

## Stelarc

Where Ascott saw the coming transformation of embodied identity into protracted information systems and processes as part of a networked Cybernetic Art Matrix, Stelarc went a step further, transforming the embodied self into the very interface of the digital and the analog—information as flesh and flesh as information—existing in as an ever-permeable human-computer interface.

In the late 70s Stelarc, who was born Stelios Arcadiou, staged of series of hook suspensions where he hung his body from gallery ceilings from large steel hooks that pierced his back, arms, and legs. Throughout the 80's he continued to use his body as a canvas for artistic experimentation,

19. It should be noted that although Ascott did see the displacement of the transcendent as an aesthetic *telos*, he nonetheless argued that by pursuing a radically progressive technological agenda in the arts, we might realize the transcendent, or what he simply called, the spiritual, in the very metaphysical nature of the being of human being, if not in human civilization at large.

increasingly incorporating technological elements. For instance, in the mid 90's he staged a series of performances collectively know as *Ping Body* where he wired his naked body to electrodes whose voltage and frequency were controlled by random "pings" scattered throughout the Internet. The result was a peculiar puppet dance animated by electrical shocks triggered by unknown and anonymous digital puppet-masters.

In a brief article written in 1991 for the art, science, and technology journal *Leonardo*, Stelarc set out his vision for the technological future of the arts, and by implication, for technosociety more generally. In the spirit of Marinetti's bold *Manifesto* style, Stelarc opens his statement by provocatively declaring that, "It is time to question whether a bipedal, breating body with binocular vision and 1,400cc brain is an adequate biological form."[20] Indeed, he goes on to claim, in all-caps, that "THE BODY IS OBSOLETE."[21]

In this piece and in later writings, Stelarc proposes that not only is technology an extension of the embodied self (as did Marinetti), or that the embodied self can be translated into information bits (as did Ascott), but that *the body is itself the fleshy interface of Marinetti's machine and Ascott's information*. Stelarc writes that, "Technology is not only attached but is also implanted. Once a container, technology now becomes a component of the body . . . We are at the end of philosophy and human physiology."[22] The machines that once extended the body and the information that was once the extrapolated modality of selfhood and its physical form, converge in the flesh as the mechanistic body and informational mind blur into an informational machine and become an always on, always connected, undifferentiated human-computer interface.

For Stelarc, the body itself is the place where the technological displacement of any pretense to transcendence occurs. Indeed, the theological and aesthetic machinations of transcendence are usurped through the extropian perfections made possible through technology. The artistic product is nothing other than the flesh itself as it is transformed into a technotopia where technology merges with the body in a seamless interface of the digital and the analog.

## SECTION II:

The preceding discussion attended only to three artists, and even then to only a single short writing by each. Each artist has written substantially more,

20. Stelarc, "Prosthetics, Robotics, and Remote Existence," 591.
21. Ibid., 595.
22. Ibid.

variously expressing their views in manifestos, scholarly articles, books, and blogs. Nonetheless, the artists I selected and the pieces I attended to are representative of each artist's thought and work, and more importantly, they are representative of a general trend in the utopian aesthetics at the intersection of art, technology, and culture during the twentieth century; that trend being an progressive conceptualization of self and society as industrial machine, computer network, and digital interface.

The objectification of resources and people pursuant to their potential utility according to an immanent teleology has superseded the eighteenth and nineteenth-century aesthetic ideal of transcendence. Over the course of the twentieth-century technological atheism has largely displaced any notion of transcendence as the overarching vision of an artistic and cultural ideal. As visions of utopia—artistic and otherwise—increasingly descended from heavenly ideals to earthly realities, technology has come to be seen as the mode of its realization. In the words of Marinetti, "Mythology and the Mystical Ideal are defeated at last. We're about to see the Centaur's birth . . ."[23]

I began this chapter by quoting Ruth Levitas, who wrote that utopia is "the expression of desire for a better way of living and being,"[24] asking what should inform this desire. I suggested that the aesthetics of technological atheism as particularly expressed in the writings of Marinetti, Ascott, and Stelac, effectively displaced the metaphysical aesthetics of transcendence of the eighteenth and nineteenth centuries. Thus I implicitly suggested the transcendence of theology and the immanence of technology serve as two different guides that might inform this "desire for a better way of living and being." However, I conclude by arguing that both are flawed.

The problem with the technotopian vision proffered by Marinetti, Ascott, and Stelarc—as well as comparable visions articulated by others not cited here—is that they represent an acceptance of the dominant top-down mode of technological innovation while lacking the criticality of bottom-up subversions of technoculture. As such, they are implicitly defined and hemmed in by the techno-logic that forms the dominant cultural modality of the day. They represent an acquiescence of the analog body and mind to the industrial, informational, and interfacial technological systems of the age.

This approach neglects the political and cultural ideologies that are built into the technologies themselves. Consequently, the technology determines the utopia as opposed to a utopian vision determining technological

23. Marinetti, "Manifesto of Futurism," 19.

24. Levitas, *The Concept of Utopia*, 91.

development and deployment. Moreover, inasmuch as the dominant technologies of a culture tend to be aligned with (or become aligned with) established social, economic, and political power structures, the utopian impulse should be informed by a desire to disrupt and destabilize the technologies that define the cultural order; a utopian ideal that sets about fracturing, dismantling, and dis-ordering the technological order, not advancing on it.

Abandoning flimsy theology and hackneyed ideals was, as Marinetti suggested, long overdue and in fact necessary for the furtherance of the artistic project in general. But to release one false idol only to embrace another is only to trade the god of nineteenth-century humanist theology for the god of twentieth-century atheistic technology. Both share a vision of the ideal that is predicated on the illusion of perfection.

For the transcendental theism of the nineteenth-century Romantics and their intellectual progeny, the beautiful entices the soul away from the material trappings of the sensuous world through an aesthetic appeal that paradoxically aims to transcend the aesthetic. Conversely, for the technological atheism latent in Marinetti, Ascott, and Stelarc, the body is a fleshy prison calling for technological transformation pursuant to the unacknowledged ideals and ideologies instantiated in those technologies; the industrial ideals of speed, strength, and endurance, the informational ideals of quantification, efficiency, and exchange, and the interfacial ideals of convergence, identity, and extension. In both instances, the imprecise analog body with its inarticulate desires and impulses, with its grotesque fluids and inconvenient needs is colonized by a rational system; the utopias of theology or technology.



## SECTION III:

What, then, are the desires that should inform a utopian vision in a technological age? There are, I believe, three core values that should determine this impulse "for a better way of living and being" in today's techno-culture. First, the reality of embodiment must be recognized and valued. Second, the frailty of the body must be recognized and valued as concomitant with the reality of embodiment. Third, and finally, the appropriation of technology pursuant to any ideal norm, whether individual or social, should entail the recognition and valuing of the finite nature of embodied existence.

When we imagine, manifesto-style, a future aesthetic—and future culture—the fragile and frightening body must be prized as the foundation of subversion and resistance, undermining the totalizing tendencies of both theology and technology with gestures of fallibility. This would be an artistic

and cultural project that takes the flawed and fallible being of the human being as its normative origins so as to disrupt the technological and theological pretentions to perfection that, during the nineteenth, twentieth, and twenty-first centuries respectively, determined the dominant value structures of the societies where theologies of transcendence or technological atheism were embraced or imposed. We must not begin with far off visions of abstract ideals, but rather with the humble fact of our fragile and finite embodied existence.

There is only one perspective that we will ever have, and that is the perspective of a human being—and the being of the human being is bound up with its embodiment. Thus, the reality of our embodiment is foundational to the essence and existence of our being, and to overlook or shun it in favor of either theologies of transcendence or atheistic technological ideals is to begin from a mistaken premise. Our very ideas of transcendence, be they theological or technological, presuppose the reality of our frailty and finitude as some broad, ugly ditch to leap across. This, however, mistakes the situation. Our embodiment is not something to leap across, but is rather the very mode by which we might imagine such a leap in the first place. It is at once the condition of the possibility of imagining otherwise and the deficit that makes realizing such imaginings impossible.

Likewise, it is our frailty, the body's tendency towards decay, that encourages us to cast our vision of utopia not in an idealized future, whether a heavenly beyond or future technotopia, but in the rusty present. In this, Merleau-Ponty rightly framed perception and subjectivity in terms of their corporeality.[25] But the condition of the corporeal subject is one that is both faulty and ultimately finite. And it is both the body's limitations and the promise of its final demise that makes embodied subjective experience existentially valuable and meaningful. The *telos* that forms and informs this value and meaning is not extracted from embodied experience itself. Rather, it is found within embodied experience and the limiting factors of embodied experience that lend value and meaning to that experience.

Moreover, these limiting factors—the frailty and finitude of embodiment—suggest, again borrowing from Merleau-Ponty, an "ontology of the flesh"[26] that need not appeal to either the transcendence of theology or the rootless immanence of technological atheism. The flesh itself is the ontological ground of experience and the normative foundation of meaning and value and this meaning and value is itself contingent upon the body's very finitude.

25. Merleau-Ponty, *The Phenomenology of Perception*.
26. Ibid.

The fact of finitude secures a terminal end to our projects thereby providing the impetus to pursue and realize them. The fact of our fallibility, our tilting toward failure, makes those projects meaningful. The possibility, even likelihood, of failure is what makes our endeavors meaningful. Absent finitude, the horizon for our endeavors extends indefinitely and diminishes the impulse to realize them. Absent our frailty and the prospect of failure, our projects—the project of being human itself—likewise loses its existential, and even ultimate, meaning.

For all of human history the technologies we devised, from the spear to the telephone, had to function in a world designed for humanity. As such, those technologies had to offer a repertoire of functions that most suited the human user and his or her world. However, for the first time in human history we are creating a technological culture where we must comport ourselves to a world designed by and for our technologies; where our thoughts and behaviors must accord with the repertoire of expectations and functions of technology—and today's digital technology knows nothing of finitude or failure.

Considerations of technology's impact on artistic and cultural visions of utopia should therefore begin from and preserve these essential and defining features of our being, our finitude and frailty, rather than seeking to overcome them in a technotopia of machines and speed, computers and networks, or interfaces and exchanges.

To be clear, this is not a rejection of technology; this is not a Luddite position. Technology can and should be embraced by the arts, especially as artists envision and shape the future of culture. It has always fallen to the artists—the creators—to cast a cultural vision of the future, and technology must be a part of that vision as well as its realization. In his book *Always On,* Brian Chen compares technology (the Internet in particular) to food, noting that "Attempting to generalize 'the Internet' as good or bad is like saying 'food' is good or bad; however, different types of food can be healthy or unhealthy depending on the amount one consumes."[27] As Chen rightly observes, technology is neither wholly good nor wholly bad. However, artists and culture creators must recognize that different technologies—like different theologies—carry with them their own socio-cultural implications. That is, technology carries with it as much built-in ideology as theology, even if the ideologies of theology are more obvious.

Looking forward then to the technotopias of the future arising from the nexus of technology and the arts, we must be as bold as we are cautious; weighing both technology and theology on the scales of humanity.

27. Chen, *Always On*, 135–36.

We are (for the time being) above all defined by the frailty and finitude of our embodied being. As such, our being-toward-failure is the quintessential character of our existence and must be therefore be preserved as the programmatic source of any ultimate meaning we might derive from it.

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