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The "punch" of the video, the quality of the image coming out at you, is a punch that can be thrown, like throwing a voice—now you can see it, here it comes, it's going to hit you smack in the face—now you see it—there it is in the back of your mind—a punch at the back of your head.
--- **Vito Acconci**, "10-Point Plan for Video," in *Video Art: An Anthology*, ed. Ira Schneider and Beryl Korot (New York: Harcourt, Brace, Jovanovich, 1976), 9.

Although the culture industry undeniably speculates on the conscious and unconscious state of the millions towards which it is directed, the masses are not primary, but secondary, they are an object of calculation; an appendage of the machinery. The customer is not king, as the culture industry would like to have us believe, not its subject but its object.
--- **Theodor Adorno**, "Culture Industry Reconsidered," (1963) *New German Critique*, no. 6 (Fall 1975): 12-19.

The color film demolishes the genial old tavern to a greater extent than bombs ever could: the film exterminates its imago. No homeland can survive being processed by the films which celebrate it, and which thereby turn the unique character on which it thrives into an interchangeable sameness.
--- **Theodor Adorno**, "Culture Industry Reconsidered"(1963), *New German Critique*, no. 6 (Fall 1975): 12-19.

I have a real personal relationship with machines. It's true that even though I've been very, very critical of technology in terms of what I say, I find that I make those criticisms through 15,000 watts of power and lots of electronics.
--- **Laurie Anderson**, "Interview with Charles Amirkhanian" (1984), in *Theories and Documents of Contemporary Art*, ed. Kristine Stiles and Peter Selz (Berkeley: UC Press, 1996), 422.

In a sense, as these two life forms—human and machine—begin to merge a little bit, we're talking about technology really as a kind of new nature, something to measure ourselves against, and to make rules from, and to also investigate.
--- **Laurie Anderson**, "Interview with Charles Amirkhanian" (1984), in *Theories and Documents of Contemporary Art*, ed. Kristine Stiles and Peter Selz (Berkeley: UC Press, 1996), 423.

Who can deny that we are a nation addicted to television and the constant flow of media? Now I ask you, my fellow Americans, haven't you ever wanted to put your foot through your television screen?
--- **Ant Farm**, "Media Burn" (1975). in *Video Art: An Anthology*, ed. Ira Schneider and Beryl Korot (New York: Harcourt, Brace, Jovanovich, 1976), 11.

The current celebration of the coming of the cyborg, the possibilities of transforming labor into play, the hype about the wonderful world of the electronic superhighway and the vast horizon of the deployment of computers for music, film, and other visual arts must be tempered by the recognition that the main use of computers and other cybernetic technologies is to destroy paid work.
--- **Stanley Aronowitz**, "Technology and the Future of Work," in *Culture at the Brink*, ed. Gretchen Bender and Timothy Druckrey (Seattle: Bay Press, 1994), 29.

Our statesmen, our businessmen, our everyman must take on a science fictional way of thinking.
--- **Isaac Asimov**, "My Own View," in *The Encyclopedia of Science Fiction*, ed. Robert Holdstock (London: Cathay Books, 1978).

B

Microcomputation, multitrack recording, video imaging, and the highly innovative vocalizations and choreography of black urban youth have produced a postmodern form that is fiercely intertexual, open-ended, hybrid.
---- **Houston A. Baker, Jr.**, "Hybridity, the Rap Race, and Pedagogy for the 1990s," in Andrew Ross and Constance Penley, introduction to *Technoculture* (Minneapolis: University of Minnesota, 1991), 204.

Science and technology multiply around us. To an increasing extent they dictate the languages in which we speak and think. Either we use those languages, or we remain mute.
--- **J. G. Ballard**, introduction to *Crash*, 1973 (London: Paladin Books 1990).

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Everything is becoming science fiction. From the margins of an almost invisible literature has sprung the intact reality of the 20th century.
--- **J. G. Ballard**, "Fictions of Every Kind," in *Books and Bookmen*, (London:, Feb 1971).

Abstract statementism didn't share the overlapping, jostling vocabularies of science, technology, advertising, the new realms of communication…technologies that launched the space age were already underpinning the consumer-goods society in those days. How much of this did Abstract statementism represent?
--- **J.G. Ballard**, quoted in "Speculative Illusions: Eduardo Paolozzi in Conversation with J.G. Ballard and Frank Whitford." *Studio International_183*, no. 937 (October 1971), 136.

The challenge is to harness the power of technological knowledge to a feminist agenda while struggling against an increasing industrial imperialism that eagerly assimilates new technoworkers to labor in the interests of private enterprise. The question is how to empower technological agents such that they will work on behalf of the right kind of social change.
--- **Anne Balsamo**, "Feminism for the Incurably Informed," in *Flame Wars: The Discourse of Cyberculture*, ed. Mark Dery (Durham: Duke, 1994), 148.

The closest analog to Virtual Reality in my experience is psychedelic, and in fact cyberspace is already crawling with delighted acid heads.
--- **John Barlow**, "Being in Nothingness—*Virtual Reality and the Pioneers of Cyberspace*," Mondo 2000 no. 2, Summer 1990, 41.

For me the noise of Time is not sad: I love bells, clocks, watches—and I recall that at first photographic implements were related to techniques of cabinetmaking and the machinery of precision: cameras, in short, were clocks for seeing, and perhaps in me someone very old still hears in the photographic mechanism the living sound of the wood.
--- **Roland Barthes**, *Camera Lucida*, trans. Richard Howard (New York: Hill and Wang, 1981), 15.

The Photograph then becomes a bizarre medium, a new form of hallucination: false on the level of perception, true on the level of time; a temporal hallucination, so to speak, a modest, shared hallucination (on the one hand "it is not there," on the other "but it has indeed been"): a mad image, chafed by reality.
--- **Roland Barthes**, *Camera Lucida*, trans. Richard Howard (New York: Hill and Wang, 1981), 125.

Do I add to the images in movies? I don't think so; I don't have time: in front of the screen, I am not free to shut my eyes; otherwise, opening them up again, I would not discover the same image; I am constrained to a continuous voracity; a host of other qualities, but not pensiveness.
--- **Roland Barthes**, *Camera Lucida*, trans. Richard Howard (New York: Hill and Wang, 1981), 55.

As the photographic industry was the refuge of every would-be painter, every painter too ill-endowed or too lazy to complete his studies, this universal infatuation with photography bore not only the mark of a blindness, an imbecility, but had also the air of a vengeance.
--- **Charles Baudelaire**, "The Salon of 1859," (1859) trans. Jonathan Mayne. Reprinted in *Photography in Print: Writings from 1816 to the Present*, ed. Vicki Goldberg (New York: Touchstone, 1981), 124.

It is useless to fantasize about the state projection of police control through TV…TV, by virtue of its mere presence, is a social control in itself.
--- **Jean Baudrillard**, "Requiem for the Media," in *For a Critique of the Political Economy of the Sign*, trans. Charles Levin (St. Louis: Telos Press, 1981), 164-84.

No more subject, focal point, center, or periphery: but pure flexion or circular inflection. No more violence or surveillance: only "information," secret virulence, chain reaction, slow implosion, and simulacra of spaces where the real-effect again comes into play.
--- **Jean Baudrillard**, "The Process of Simulacra," in *Art after Modernism: Rethinking Representation*, ed. Brian Wallis (New York: New Museum, 1984), 273.

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The real is produced from miniaturized units, from matrices, memory banks, and command models—and with these it can be reproduced an infinite number of times.
--- **Jean Baudrillard**, "The Process of Simulacra," in *Art after Modernism: Rethinking Representation*, ed. Brian Wallis (New York: New Museum, 1984), 254.

All this belongs to the ludic realm where one encounters a *cold seduction*—the "narcissistic" spell of electronic and information systems, the cold attraction of the terminals and mediums that we have become, surrounded as we are by consoles, isolated and seduced by their manipulation.
--- **Jean Baudrillard**, *Seductions* (New York: St. Martin's Press, 1990), 162.

For the first time, between the originating object and its reproduction there intervenes only the instrumentality of a non-living agent. For the first time an image of the world is formed automatically, without the creative intervention of man…The objective nature of photography confers on it a quality of credibility absent from all other picture making.
--- **André Bazin**, "The Ontology of the Photographic Image," *What is Cinema?* Vol. 1, (Berkeley: UC Press, 1967), 13.

To speak of, or to even attempt to visualize form now, one must contemplate its antithesis. Meta-attributes have replaced physical attributes: meta-query, meta-content, meta-symbols, and meta-place. Though the dream is seemingly at hand, this electronic reality exists remotely—in the netherworld of earth orbiting satellite links, communication servers, the Internet and intranets, and so on. We have, in effect, fallen outside of ourselves, as the once hard distinction between remote and local stages become even further dispersed, and the exposure intervals between time and space, inside and outside, mind and body, imaginary and real are no longer quantifiable factors.
--- **John Beckmann**, "Merge Invisible Layers," in John Beckmann, ed. *The Virtual Dimension: Architecture, Representation, and Crash Culture* (New York: Princeton Architectural Press, 1998), 3.

If you look back in history you'll find that the artist and the scientist are inseparable. in many ways the artist's work is identical with scientific exploration. The artist is able to focus more in the area of consciousness, but with the same scientific zeal. Yet cosmic consciousness is not limited to the scientist. in fact scientists are sometimes the last to know.
--- **Jordan Belson**, quoted in Gene Youngblood, *Expanded Cinema* (New York: EP Dutton and Co., 1970), 135.

The staging of identity means that the dynamics of looking have been reconfigured as the formerly static, passive object under observation becomes a subject to be seen…The "true" nature of information, preserved as it is in visual, two-dimensional form, can be disclosed and even disguised in masquerading performances of multidimensional perspectives. Such a collusion between the deceptive and the apperceptive occurs in the complicitous dynamics of "passing." in which individuals trade on their ability to appear "true" while trespassing categories such as sex and race.
--- **Andrew Blauvelt**, "Unfolding Information," *Emigre 40* (Fall, 1996): 21.

It is the inherent multiplicity of digital media that must be considered. Part of this multiplicity is to be found in the recognition of the information event as something more than the place of information, and instead suggests a performance where information is both staged and experienced. It's not just the space and place of information (its punctuation) but its unfolding and becoming in time (its mutation) that needs to be considered.
--- **Andrew Blauvelt**, "Unfolding Information," *Emigre* 40 (Fall, 1996): 15-16.

In contrast to both explicit and implicit forms of information display, the double- or even multiple-functioning elements in digital media encourage juxtaposition that fosters the act of comparison, between this and that, in managing the complexity of information events. "This or that" —as distinct, even contradictory moments—is possible in what we might call "switchable" or interactive elements that can express different functions and meanings through the time-based properties of digital media… Meaning can be tagged to temporal occurrence rather than spatial placement or layer. This prioritizes issues of time over arrangements in space.
--- **Andrew Blauvelt**, "Unfolding Information," *Emigre* 40 (Fall, 1996), 19.

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Human nature becomes more and more rigid, mechanized, more and more resembles a gigantic laboratory in which the vengeance of the elements is prepared. Science flourishes in order to subjugate the earth; art flourishes in order—like a winged day-dream, a mysterious aeroplane—to fly away from the earth; industry flourishes in order that people may part company with the earth.
--- **Aleksandr Blok**, "Nature and Culture," (1908). Reprinted in *Art in Theory 1900-1990: An Anthology of Changing Ideas*, ed. Charles Harrison and Paul Wood (Oxford: Blackwell Publishers, 1993), 144.

We propose the widest generalizing from the Luddite critique of the machine, to enable a strategic, even a mythic, connection between the lost struggles of the hand-loom weavers against factory discipline and starvation, and contemporary forms of resistance—against the zoning that denatures life in cities, against the mechanization of birth, against racist survelliance and the criminalization of poverty, against the iron cage of bureaucracy, against state borders and identities, against the programming of the wild, so that our world, and our selves, might yet be made over.
--- **Iain A. Boal**, "Flow of Monsters," in *Resisting the Virtual Life*, ed. James Brook and Iain A. Boal (San Francisco: City Lights, 1995), 14.

What was truth for the painters of yesterday is but a falsehood today...Who can still believe in the opacity of bodies, sense our sharpened and multiplied sensitiveness has already penetrated the obscure manifestations of the medium? Why should we forget in our creations the doubled power of our sight capable of giving us results analogous to those of the X-rays?
--- **Umberto Boccioni**, et.al. "Futurist Painting: Technical Manifesto," first published in Poesia, 1910. Reprinted in *Art in Theory 1900-1990: An Anthology of Changing Ideas*, ed. Charles Harrison and Paul Wood (Oxford: Blackwell Publishers, 1993), 150.

The most likely way for the world to be destroyed, most experts agree, is by accident. That's where we come in; we're computer professionals. We cause accidents.
--- **Nathaniel Borenstein**, found at http://quoteland.com/quotes/author/46.html.

While everything would lead one to expect that photography, which has no traditions and makes no demands, would be delivered over to the anarchy of individual improvisation, it appears that there is nothing more regulated and conventional than photographic practice and amateur photographs.
--- **Pierre Bourdieu**, *Photography: A Middle-Brow Art*. First published 1965. Trans. Shaun Whiteside (Stanford: Stanford University, 1990), 7.

Stuff your eyes with wonder . . . live as if you'd drop dead in ten seconds. See the world. It's more fantastic than any dream made or paid for in factories.
--- **Ray Bradbury**, *Fahrenheit 451* (New York: Ballantine Books, 1953).

Art is made to disturb. Science reassures.
--- **Georges Braque**, "Thoughts on Painting," (1917) in Edward Fry, *Cubism* (London and New York, 1986).

The radio would be the finest possible communication apparatus in public life, a vast network of pipes. That is to say, it would be if it knew how to receive as well as to transmit, how to let the listener speak as well as hear, how to bring him into a relationship instead of isolating him. On this principle the radio should step out of the supply business and organize its listeners as suppliers.
--- **Bertolt Brecht**, "The Radio as an Apparatus of Communication." From *Brecht on Theater*, edited and translated by John Willett (New York: Hill and Wang, 1964). Reprinted in John G. Hanhardt, *Video Culture* (Rochester, New York: Visual Studies Workshop, 1986), 53.

Radios? Fine. Syphilis? If you like. Photography? I don't see any reason why not. The cinema? Three cheers for the darkened rooms. War? Gave us a good laugh. The telephone? Hello. Youth? Charming white hair. Try to make me say thank you: "thank you." Thank you. If the common man has a high opinion of things which properly speaking belong to the realm of the laboratory, it is because such research has resulted in the manufacture of a machine or the discovery of some serum which the man in the street views as affecting him directly.
--- **André Breton**, *Manifestoes of Surrealism* (1924), trans. Richard Seaver and Helen Lane (Ann Arbor, MI: Ann Arbor Paperbacks, 1972), 46.

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We are the prisoners of the mechanical orgy pursued inside the earth, for we have dug mines, underground galleries through which we sneak in a band beneath the cities that we want to blow up. We already have Sicily and Sardinia. It is we who provoke at will the tremors that those delightfully sensitive instruments record.
--- **André Breton**, "Soluble Fish" (1924) in *Manifestoes of Surrealism*, trans. Richard Seaver and Helen Lane (Ann Arbor, MI: Ann Arbor Paperbacks, 1972), 63.

The rites of work celebrated with these new machine-fetishes recall the kind of routine, calculable, scheduled work first developed in medieval monasteries: so is it any wonder that one overhears conversations about computing wherever one goes—or that religious fundamentalists, xenophobes, nationalists, racists, and fascists feel comfortable in the refurbished ideology of the "global village?"
--- **James Brook and Iain A. Boal**, preface to *Resisting the Virtual Life: The Culture and Politics of Information* (San Francisco: City Lights, 1995).

While Gibson wrote *Neuromancer* on a manual typewriter, the Voyager Company has enabled me to read it on my Powerbook. A single floppy contains the entire trilogy: *Neuromancer*, *Count Zero*, and *Mona Lisa Overdrive*. Using the search function, I pretend to determine the prevalence of machine culture references in Gibson's writing. Did you know that there are twelve references to *rust* in the first book, nineteen in the second, and a whopping twenty-six in the last? "Accelerated decrepitude," as someone in *Blade Runner* put it.
--- **Scott Bukatman**, "Gibson's Typewriter," in *Flame Wars: The Discourse of Cyberculture*, ed. Mark Dery (Durham: Duke, 1994), 87.

In the year 2014 New York, world center for underground medicine, is the most glamorous, the most dangerous, the most exotic, vital, far-out city the world has ever seen. The only public transport is the old IRT limping along at five miles an hour through dimly-lit tunnels. The other lines are derelict. Hand-propelled and steam-driven cars transport produce, the stations have been converted into markets. The lower tunnels are flooded, giving rise to an underground Venice.
--- **William S. Burroughs**. *Blade Runner: A Movie* Berkeley: Blue Wind Press, 1990).

What good is science fiction's thinking about the present, the future, the past? What good is its tendency to warn or consider alternative ways of thinking and doing? What good is it's examination of the possible effects of science and technology, or social organization and political direction? And what good is this all to Black people?
--- **Octavia E. Butler**, "Positive Obsession," in *Bloodchild and other Stories* (New York/London: Four Walls Eight Windows, 1995), 135.

C

If on arriving at Trude I had not read the city's name written in big letters, I would have thought I was landing at the same airport from which I had taken off. The suburbs they drove me through were no different from the others, with the same little greenish and yellowish houses. Following the same signs we swung around the same flower beds in the same squares. The downtown streets displayed goods, packages, signs that had not changed at all. Why come to Trude? I asked myself. And already I wanted to leave. "You can resume your flight whenever you like," they said to me, "but you will arrive at another Trude, absolutely the same, detail by detail. The world is covered by a sole Trude which does not begin and does not end. Only the name of the airport changes."
--- **Italo Calvino**, *Invisible Cities*, trans. William Weever (New York: Harvest/HBJ Book, 1972), 128.

There will be no poverty. All work will be done by living machines. Everybody will be free from worry and liberated from the degradation of labor. Everybody will live only to perfect himself.
--- **Karel Capek**, *Rossum's Universal Robots*, trans. Paul Selver (Garden City, New York: Doubleday), 1923.

You can feel it even when you're stuck in traffic, the romance of Silicon Valley. Every age has its Left Bank, the place where hot, restless souls test their capacity for adventure, the place, like Silicon Valley today, where people are more alive than you or I.
--- **Dennis Cass**, "Let's Go: Silicon Valley!" *Harper's Magazine* July 2000, 59.

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The first explorers of Earth had long since come to the limits of flesh and blood; as soon as their machines were better than their bodies, it was time to move. First their brains, and then their thoughts alone, they transferred into shining new homes of metal and plastic. In these, they roamed the stars. They no longer built spaceships. They *were* spaceships.
--- **Arthur C. Clarke**, *2010: Odyssey Two* (New York: Ballantine, 1982), 266.

Historians have been wrong in concluding that magic disappeared with the advent of "quantitative science." The latter has simply substituted itself for a part of magic while extending its dreams and its goals by means of technology. Electricity, rapid transport, radio and television, the airplane, and the computer have merely carried into effect the promises first formulated by magic, resulting from the supernatural processes of the magician: to produce light, to move instantaneously from one point in space to another, to communicate with faraway regions of space, to fly through the air, and to have an infallible memory at one's disposal.
--- **Joan Couliano**, *Eros and Magic in the Renaissance*, trans. Margaret Cook. (Chicago: University of Chicago, 1987), 104.

What if machines *do* have a subconscious of their own? What if machines right now are like human babies, which have brains but no way of expressing themselves except screaming (crashing)? What would a machine's subconscious look like? How does it feed off what we give it? If machines could talk to us, what would they say?
--- **Douglas Coupland**, *Microserfs* (New York: ReganBooks, 1995), 44.

What [Baudrillard's] texts exclude is any sense of breakdown, of faulty circuits, of systemic malfunction; or of a body that cannot be fully colonized or pacified, of disease, and of the colossal dilapidation of everything that claims infallibility or sleekness.
--- **Jonathan Crary**, "The Eclipse of the Spectacle," in *Art After Modernism: Rethinking Representation*, ed. Brian Wallis (New York: New Museum of Contemporary Art, 1984), 291.

If the automobile had followed the same development as the computer, a Rolls-Royce would today cost $100, get a million miles per gallon, and explode once a year killing everyone inside.
--- **Robert Cringely**, found at http://quoteland.com/quotes/author/113.html.

D

Video is the latest step in a process that is destroying the spectator ritual in art—the going out to the temple to see it—but by no means the last. The next step is to get rid of the intervening structure, the cameras, the monitors, and telecasting circuitry...so that I can transmit to and receive from your mind instantly, without the need for the tape or the camera.
--- **Douglas Davis**, "Interview with Douglas Davis by David Ross, in *Video Art: An Anthology*, ed. Ira Schneider and Beryl Korot (NY: Harcourt, Brace, Jovanovich, 1976), 33.

With pills modifying personality, machines modifying bodies, and synthetic pleasures and networked minds engineering a more fluid and invented sense of self, the boundaries of our identities are mutating as well. The horizon melts into a limitless question mark, and like the cartographers of old, we glimpse yawning monstrosities and mind-forged utopias beyond the edges of our paltry and provisional maps.
--- **Erik Davis**, *Techgnosis: Myth, Magic and Mysticism in the Age of Information* (New York: Three Rivers Press, 1998), 1.

The whole of life of those societies in which modern conditions of production prevail presents itself as an immense accumulation of spectacles. All that was once directly lived has become mere representation.
--- **Guy Debord**, *The Society of the Spectacle*, first published 1967. Trans. Donald Nicholson-Smith (New York: Zone Books, 1994), 12.

The spectacle is not a collection of images; rather, it is a social relationship between people that is mediated by images.
--- **Guy Debord**, *The Society of the Spectacle*, first published 1967. Trans. Donald Nicholson-Smith (New York: Zone Books, 1994), 12.

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The spectacle manifests itself as an enormous postivity, out of reach and beyond dispute. All it says is: "Everything that appears is good; whatever is good will appear." The attitude that it demands in principle is the same passive acceptance that it has already secured by means of its seeming incontrovertibility, and indeed by its monopolization of the realm of appearances.
--- **Guy Debord**, *The Society of the Spectacle*, first published 1967. Trans. Donald Nicholson-Smith (New York: Zone Books, 1994), 15.

It is easy to see to what extent the very principle of the spectacle—nonintervention—is linked to the alienation of the old world. Conversely, the most pertinent revolutionary experiments in culture have sought to break the spectator's psychological identification with the hero so as to draw him into activity by provoking his capacities to revolutionize his own life. The situation is thus made to be lived by its constructors. The role played by a passive or merely bit-part playing "public" must constantly diminish, while that played by those who cannot be called actors but rather, in a new sense of the term, "livers," must steadily increase.
--- **Guy Debord**, writings from the Situationist International, June 1957. Reprinted in *Art in Theory 1900-1990: An Anthology of Changing Ideas*, ed. Charles Harrison and Paul Wood (Oxford: Blackwell Publishers, 1993), 693.

Cyberpunk is that current science fiction work which is not middle-class, not comfortable with history, not tragic, not supportive, not maternal, not happy-go-lucky.
--- **Samuel Delany**, "Forum on Cyberpunk," *Mississippi Review* (1988), ed. Larry McCaffery: 33.

The kids who were the budding electronics repairmen, are, today, the computer hackers. And if you are having a software problem, yes, often they can help you. But when the *hardware* goes—when one of those chips gets a crack or a scratch—they're just as lost as anybody else. And that means, at the material level, our technology is becoming more and more like magic—with a class of people who know the incredibly complex spells and incantations needed to get the stuff to work, but almost none of whom can get in there and fix it.
--- **Samuel Delaney**. "Black to the Future," interview with Mark Dery in *Flame Wars: The Discourse of Cyberculture*, ed. Mark Dery (Durham: Duke University, 1994), 192.

To look at any of these black cultural youth movements as an easy and happy development blossoming uncritically from the overwhelmingly white world of high-tech production that, yes, makes that culture possible, is, I suspect, thoroughly to misread the fiercley oppositional nature of this art: scratch and sampling begin, in particular, as a specific *mis-use* and conscientious *desecration* of the artifacts of technology and the entertainment media.
--- **Samuel Delaney**. "Black to the Future," interview with Mark Dery in *Flame Wars: The Discourse of Cyberculture*, ed. Mark Dery (Durham: Duke University, 1994), 193.

Science fiction as a mode of writing and reading, as a textual and contextual production of signs and meanings, inscribes our cognitive and creative processes in what may be called the technological imagination. in tracing cognitive paths through the physical and material reality of the contemporary technological landscape and designing new maps of social reality, science fiction is perhaps the most innovative fictional mode of our historical creativity.
--- **Teresa de Lauretis**. "Signs of Wa/onder, in *The Technological Imagination: Theories and Fictions*, eds. Teresa de Lauretis, Andreas Huyssen, and Kathleen Woodward (Madison: University of Wisconsin, 1980), 169.

My body is an image hence a set of actions and reactions. My eye, my brain, are images, parts of my body. How could my brain contain images since it is one image among others? External images act on me, transmit movement to me, and I return movement: how could images be in my consciousness since I am myself image, that is movement.
--- **Gilles Deleuze**, *The Movement-Image*, trans. Ralph Manheim (Boston: Little, 1974), 58.

You could put your faith in technology. It got you here, it can get you out. This is the whole point of technology. It creates an appetite for immortality on the one hand. It threatens universal extinction on the other. Technology is lust removed from nature.
--- **Don DeLillo**, *White Noise* (New York: Penguin Books, 1984), 285.

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I realized the place was awash in noise. The toneless systems, the jangle and skid of carts, the loud-speaker and coffee-making machines, the cries of children. And over it all, or under it all, a dull and unlocatable roar, as of some form of swarming life just outside the range of human apprehension.
--- **Don DeLillo**, *White Noise* (New York: Penguin, 1985), 36.

I went to the automated teller machine to check my balance. I inserted my card, entered my secret code, tapped out my request. The figure on the screen roughly corresponded to my independent esti-mate, feebly arrived at after long searches through documents, tormented arithmetic. Waves of relief and gratitude flowed over me. The system had blessed my life.
--- **Don DeLillo**, *White Noise* (New York: Penguin, 1985), 46.

Cyberculture is a farflung, loosely knit complex of sub-legitimate, alternative, and oppositional subcul-tures whose common project is the subversive use of technocommodities, often framed by radical body politics. Cyberculture is divisible into several major territories: visionary technology, fringe science, avant-garde art, and pop culture.
--- **Mark Dery**, "Cyberculture," *SAQ* 91 (Summer 1992), 509.

I realize that dada has given way to data, that video art is on the other side of the keyhole cut in the wall of art history by the black canvas and the exploding sculpture.
--- **Tom DeWitt**, "Cathode Ray Theater." in *Video Art: An Anthology*, ed. Ira Schneider and Beryl Korot (New York: Harcourt, Brace, Jovanovich, 1976), 37.

Perched on a tightwire between the reasoned deliberation of text and the emotional immediacy of conversation, online communication sets itself up for a fall that is constantly realized. Fooled by the cold surface of electronic text, people lob messages cast in aggressively forensic impersonality into the midst of this combustibly personal medium, and the result, routinely, is a heatedly antagonistic exchange fueled by the most livid of emotions yet pretending in its rhetorical strategies to the most rational of dialogue.
--- **Julian Dibbell**, "A Rape in Cyberspace: or How an Evil Clown, a Haitian Trickster Spirit, Two Wizards, and a Cast of Dozens Turned a Database into a Society," in *Flame Wars: The Discourse of Cyberculture*, ed. Mark Dery (Durham: Duke University, 1994), 261.

Our culture is dominated by the influence of the corporate mentality as never before. Our future depends not only on the specific form that new technologies take, but on what kind of social and politi-cal structure we create and to what ends this society uses these technologies A popular movement for social change must take advantage of the new technologies to further democratize the nation and to empower the disenfranchised. It is not the technology that will revolutionize society, but a movement of millions that must transform society.
--- **Jesse Drew**, "Media Activism and Radical Democracy," in *Resisting the Virtual Life*, ed. James Brook and Iain A. Boal (San Francisco: City Lights, 1995), 83.

Our technologies and our fictions are converging.
--- **Timothy Druckrey**, introduction to *Culture on the Brink: Ideologies of Technology*, ed. Gretchen Bender and Timothy Druckrey (Seattle: Bay Press, 1994), 2.

We have seen...to our amazement and distress, a marriage between science and destruction...We have always thought of science as the emancipator. We now see it as the enslaver of mankind.
--- **W.E.B. DuBois**, in *The Chicago Defender*, 1945. Quoted in Paul Boyer, *By the Bomb's Early Light: American Thought and Culture at the Dawn of the Atomic Age* (New York: Pantheon, 1985), 269.

Thus the "ontology" of cyberspace does not imply the being of some thing or another, rather it signals the attempts to assign being as an attribute to these new forms of media and communication. It sig-nals, in other words, a rhetorical maneuver, a play within the field of metaphor, fantasy, and what Wil-liam Gibson, in coining the terms [sic] "cyberspace," identifies as "consensual hallucination."
--- **Frances Dyson**, "'Space,' 'Being,' and Other Fictions in the Domain of the Virtual," in John Beck-mann, ed. *The Virtual Dimension: Architecture, Representation, and Crash Culture* (New York: Princ-eton Architectural Press, 1998), 28.

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Where an excess of computation and simulation—deposited via the cold glare of the ATM screen and the fake frills of ersatz home and apple pie—has produced a fear of the loss of the real, virtuality provides the warm glow of cyber companionship and the physicality of interactive environments.
--- **Frances Dyson**, "'Space,' 'Being,' and Other Fictions in the Domain of the Virtual," in John Beckmann, ed. *The Virtual Dimension: Architecture, Representation, and Crash Culture* (New York: Princeton Architectural Press, 1998), 28.

The new postmodern subject, barely distinguishable from its prostheses, existing in flows of information, suspicious that—as some technophiles claim—matter is nothing but data after all, enters a new theoretical order. Seeing, and the poststructuralist framework dominated by the mediated images, is replaced by being, and the supposedly unmediated experience of immersion. Despite the fact that most cyber experience occurs via the screen, or more contemporaneously, as flows of data. The body-as-text elides the distinction between the screen and its viewer by ignoring the actuality of the screen and elaborating instead the metaphor of virtual "space." You become a netizen, an active participation. This shift is in line with modernist ambitions of eliding the gap between signifier and signified, viewer and viewed, real and representation.
--- **Frances Dyson**, "'Space,' 'Being,' and Other Fictions in the Domain of the Virtual," in John Beckmann, ed. *The Virtual Dimension: Architecture, Representation, and Crash Culture* (New York: Princeton Architectural Press, 1998), 31.

With its cartoon-like simplicity, its child-like forms of graphic representation, the virtual environment is simply another icon, a piece of signage, for the brutally alluring "there" that the dream of the future is, and in which, by definition, one cannot be.
--- **Frances Dyson**, "'Space,' 'Being,' and Other Fictions in the Domain of the Virtual," in John Beckmann, ed. *The Virtual Dimension: Architecture, Representation, and Crash Culture* (New York: Princeton Architectural Press, 1998), 42.

E

There is a risk that we might be heading toward an online *1984*, in which Orwell's "proles" are represented by the passive, television-fed masses that have no access to this new tool, and wouldn't know how to use it if they did. Above them, of course, there'll be a petite bourgeoisie of passive users—office workers, airline clerks. And finally we'll see the masters of the game, the *nomenklatura*—in the Soviet sense of the term. This has nothing to do with class in the traditional, Marxist sense - the *nomenklatura* are just as likely to be inner-city hackers as rich executives. But they will have one thing in common: the knowledge that brings control. We have to create a *nomenklatura* of the masses. We know that state-of-the art modems, an ISDN connection, and up-to-date hardware are beyond the means of most potential users—especially when you need to upgrade every six months.
--- **Umberto Eco**, "The World According to Eco," interview with Lee Marshall, *Wired* 5.03, March 1997.

When Gutenberg invented his printing press, the working classes did not immediately sign up for copies of the 42-Line Bible; but they were reading it a century later. And don't forget Luther. Despite widespread illiteracy, his translation of the New Testament circulated through all sections of 16th-century German society. What we need is a Luther of the Net.
--- **Umberto Eco**, "The World According to Eco," interview with Lee Marshall, *Wired* 5.03, March 1997.

If Margaret Mitchell had been able to surf the Web, she would probably have written *Finnegan's Wake*. And in any case, Joyce was always online. He never came off.
--- **Umberto Eco**, "The World According to Eco," interview with Lee Marshall, *Wired* 5.03, March 1997.

The open secret of the electronic media, the decisive political factor, which has been waiting, suppressed or crippled, for its moment to come, is their mobilizing power.
--- **Hans Magnus Einzensberger**, "Constituents of a Theory of the Media", from *The Consciousness Industry*, trans. Stuart Hood (New York: the Seabury Press, 1974). Reprinted in John G. Hanhardt, *Video Culture* (Rochester, New York: Visual Studies Workshop), 1986, 97.

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The new media are egalitarian in structure. Anyone can take part in them by a simple switching process. The programs themselves are not material and can be reproduced at will. in this sense the electronic media are entirely different from the older media like the book or the easel painting, the exclusive class character of which is obvious.
--- **Hans Magnus Einzesberger**, "Constituents of a Theory of the Media," from *The Consciousness Industry*, trans. Stuart Hood (New York: the Seabury Press, 1974). Reprinted in John G. Hanhardt, *Video Culture* (Rochester, New York: Visual Studies Workshop, 1986), 104.

The sentence, "the medium is the message,"...tells us that the bourgeoisie does indeed have all possible means at its disposal to communicate something to us, but that it has nothing more to say. It is ideologically sterile. Its intention to hold onto the control of the means of production at any price, while being incapable of making the socially necessary use of them, is here expressed with complete frankness in the superstructure. It wants the media *as such* and *to no purpose*.
--- **Hans Magnus Einzesberger**, "Constituents of a Theory of the Media," from *The Consciousness Industry*, trans. Stuart Hood (New York: the Seabury Press, 1974). Reprinted in John G. Hanhardt, *Video Culture* (Rochester, New York: Visual Studies Workshop, 1986), 115.

You may live to drive a plastic car powered by an atomic engine and reside in a completely air-conditioned plastic house. Food will be cheap and abundant everywhere in the world...No one will need to work long hours. There will be much leisure and a network of large recreational areas that will cover the country, if not the world.
--- **Hubert M. Evans**, Ryland W. Crary, and C. Glen Hass, *Operation Atomic Vision: A Teaching Unit for High School Students* (Washington, DC: U.S. Atomic Energy Commission, 1948), 5-7.

F

Our society is not one of spectacle but of surveillance...We are neither in the amphitheater nor on the stage but in the Panoptic machine.
--- **Michel Foucault**, *Discipline and Punish: The Birth of the Prison*, trans. Alan Sheridan (New York: Pantheon, 1979), 217.

I used to fantasize about a machine that could take automatic audio-video read-outs of my thoughts, no matter how quickly they came or how many at a time. It would have been possible, with that machine, to spend the day lying on the beach with it attached to my brain and make works of art.
--- **Hermine Freed**, in *Video Art: An Anthology*, ed. Ira Schneider and Beryl Korot (New York: Harcourt, Brace, Jovanovich, 1976), 51.

The major disruptive forces in music in this century have been new devices, technological breakthroughs developed by electronics manufacturers who have very little idea of their potential use. The only lesson to be learned from pop history...is that the devices that succeed in the market are those that increase consumer control of their music.
--- **Simon Frith**, *Facing the Music* (New York: Pantheon, 1988), 129.

We are all astronauts.
--- **R. Buckminster Fuller**, introduction to Gene Youngblood's *Expanded Cinema* (New York: EP Dutton and C., 1970), 20.

As yet preoccupied only with visible, static, newspicture views of superficial surfaces of people and things—with one-millionth fraction of reality which it has cartooned into utter falsehood—society fails to realize that several hundred thousand radio or TV communications are at all times invisibly present everywhere around our planet. They permeate every room in every building—passing right through walls and human tissue. This is to say that the stone walls and human tissue are invisible and nonexistent to the electromagnetic wave reality.
--- **R. Buckminster Fuller**, introduction to Gene Youngblood's *Expanded Cinema* (New York: EP Dutton and C., 1970), 26.

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The most important part about tomorrow is not the technology or the automation, but that man is gong to come into entirely new relationships with his fellow man. He will retain much more in his everyday life of what we term the naïvete and idealism of the child. I think the way to see what tomorrow is going to look like is just to look at our children.
--- **R. Buckminster Fuller**, quoted in Gene Youngblood's *Expanded Cinema* (New York: EP Dutton and Co., 1970), 46.

To children born in 1970, trips to the moon will be as everyday an event as were trips into the big city to me when a boy. There was no radio when I was born. Television came when I was what is called "retiring age." The first Berkeley dissident students were born the year commercial television started. They have seen around the world on the hour ever since being born—they think world.
--- **R. Buckminster Fuller**, introduction to Gene Youngblood's *Expanded Cinema* (New York: EP Dutton and C., 1970), 31.

G

He'd operated on an almost permanent adrenaline high, a byproduct of youth and proficiency, jacked into a custom cyberspace deck that projected his disembodied consciousness into the consensual hallucination that was the matrix.
--- **William Gibson**, *Neuromancer* (New York: Ace, 1984), 5.

I was delighted when scientists and corporate technicians started to read me, but I soon realized that all the critical pessimistic left-wing stuff just goes over their heads. The social and political naïvete of modern corporate boffins is frightening, they read me and just take bits, all the cute technology, and miss about fifteen levels of irony.
--- **William Gibson**, in Jim McCllellan, "From Here to Reality." *The Face* vol. 2, no. 15, December 1989, 70.

Globalization concerns the intersection of presence of absence, the interlacing of social events and social relations "at distance" with local contextualities.
--- **Anthony Giddens**, *Modernity and Self-Identity: Self and Society in the Late Modern Age* (Stanford, CA: Stanford University Press, 1991), 21.

In a sense, the Global Information Infrastructure will be a metaphor for democracy itself…it will in fact promote the functioning of democracy by greatly enhancing the participation of citizens in decision-making. And it will greatly promote the ability of nations to cooperate with each other. I see a new Athenian Age of democracy forged in the fora the Global Information Infrastructure will create.
--- **Albert Gore Jr.**, speech to the International Telecommunications Union, Buenos Aires, March 1994.

H

With the introduction of home video and public access television, there has been a media *evolution*, if not a video revolution. Video technology is being used by a vast number of people in ways that have begun to challenge the passive consumption model that has dominated electronic communication ever since department stores first began to sponsor radio concerts to sell sofas and radios over the air.
--- **DeeDee Halleck**, "Watch out, Dick Tracy!" in Andrew Ross and Constance Penley, *Technoculture* (Minneapolis: University of Minnesota, 1991), 214.

We are today enraptured by the very geometries that once represented coercive discipline. Today children sit for hours fascinated by the day-glo geometric displays of video games. Adolescents are enchanted by the arithmetic mysteries of their computers. As adults, we finally gain "access" to participation in our cybernetic hyperreal, with its charge cards, telephone answering machines, and professional hierarchies. Today we can live in "spectral suburbs" or simulated cities. We can play the corporate game, the entrepreneurial game, the investment game, or even the art game.
--- **Peter Halley**, "Deployment of the Geometric," (1984) in *Theories and Documents of Contemporary Art*, ed. Kristine Stiles and Peter Selz (Berkeley: UC Press, 1996), 167.

The machine, in its closest contacts with the mass audience, falls within that area of human gratification that often affords the kind of gratification that we associate with toys: typewriters, telephones,

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kitchen gadgets, washing machines, cards, garden tools all have their serious value, but the sensual and visual functioning that is increasingly the designer's main concern provide the pleasure of games.
--- **Richard Hamilton**, "Popular Culture and Personal Responsibility" (1960). in *Theories and Documents of Contemporary Art*, ed. Kristine Stiles and Peter Selz. (Berkeley: UC Press, 1996), 299.

I'd rather be a cyborg than a goddess.
--- **Donna Haraway**, "A Manifesto for Cyborgs: Science, Technology, and Socialist Feminism in the 1980s," *Socialist Review* 80 (1985): 107.

Why should our bodies end at the skin or include at best other beings encapsulated by skin? From the seventeenth century till now, machines could be animated...or organisms could be mechanized.
--- **Donna Haraway**, "A Manifesto for Cyborgs: Science, Technology, and Socialist Feminism in the 1980s," *Socialist Review* 80 (1985): 230.

Our machines are disturbingly lively, and we ourselves frighteningly inert.
--- **Donna Haraway**, "A Manifesto for Cyborgs: Science, Technology, and Socialist Feminism in the 1980s," *Socialist Review* 80 (1985): 152.

From one perspective, a cyborg world is about the final imposition of a grid of control on the planet, about the final abstraction embodied in a Star Wars apocalypse waged in the name of defense, about the final appropriation of women's bodies in a masculinist orgy of war. From another perspective, a cyborg world might be about lived social and bodily relations in which people are not afraid of their joint kinship with animals and machines, not afraid of permanently partial identities and contradictory standpoints.
--- **Donna Haraway**, "A Manifesto for Cyborgs: Science, Technology, and Socialist Feminism in the 1980s," *Socialist Review* 80 (1985): 72.

One of the best things to come out of the home computer revolution could be the general and widespread understanding of how severely limited logic really is.
--- **Frank Herbert** (1920-1986) science fiction writer, found on www.quoteworld.com

Who's in the next flat? Who's in 14-B? I don't know who they are, but boy, I'm on the phone, car phone, toilet phone, plane phone, my mistress is in Chicago, the other woman I'm with is in D.C., my ex-wife is in Phoenix, my mother in Hawaii, and I have four children living all over the country. I have faxes coming in day and night, I can plug into all the world's stock prices, commodity exchanges, I am everywhere, man - but I don't know who's in 14-B.
--- **James Hillman**, *We've Had a Hundred Years of Psychotherapy and the World's Getting Worse* (San Francisco: HarperSanFrancisco, 1992).

No need to build a stage, it was all around us. We would hurl ourselves across the canvas of society like streaks of splattered paint. Highly visual images would become news, and rumor-mongers would rush to spread the excited world.
--- **Abbie Hoffman**, "Museum of the Streets," in *Cultures in Contention*, ed. Douglas Kahn and Diane Neumaier (Seattle: The Real Comet Press, 1985).

The advent of television offers a new adjunct to law and order, and I see in this new medium an instrumentality of great aid and assistance in the future protection of society.
--- **J. Edgar Hoover**, *Vanity Fair*, Feb. 9, 1949, 61. Quoted in J. Fred McDonald, *Television and the Red Menace* (New York: Praeger, 1985) 16-17.

The machine turns, turns, and must keep on turning—forever. It is death if it stands still. A thousand millions scrabbled the crust of the earth. The wheels began to turn. in a hundred and fifty years there were two thousand millions. Stop all the wheels. in a hundred and fifty weeks there are once more only a thousand millions; a thousand thousand thousand men and women have starved to death. Wheels must turn steadily, but cannot turn untended. There must be men to tend them, men as steady as the wheels upon their axles, sane men, obedient men, stable in containment.
--- **Aldous Huxley**, *Brave New World*, revised edition, (New York: Haper Perennial, originally published 1932, this edition 1992), 42.

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J

...We no longer entertain such visions of wonder-working, properly "science fiction" futures of techno-logical automation. These visions are themselves now historical and dated—streamlined cities of the future on peeling murals—while our lived experience of our greatest metropolises is one of urban decay and blight.
--- **Frederic Jameson**, "Progress versus Utopia," in *Art after Modernism: Rethinking Representation*, ed. Brian Wallis (New York: New Museum, 1984), 244.

Pornographic films are...only the potentation of films in general, which ask us to stare at the world as though it were a naked body.
--- **Fredric Jameson**. *Signatures of the Visible* (New York: Routledge, 1990), I.

What must immediately be observed is that the technology of our own moment no longer possesses this capacity for representation: not the turbine, nor even Sheeler's grain elevators or smokestacks...but rather the computer, whose outer shell has no emblemative or visual power, or even the casings of the various media themselves, as with that home appliance called television which articulates nothing but rather implodes, carrying its flattened image surface within itself.
--- **Fredric Jameson**, "Postmodernism, or the Cultural Logic of Late Capitalism." *New Left Review* 146 (July/August 1984).

I want to suggest that our faulty representations of some immense communicational and computer network are themselves but a distorted figuration of something even deeper, namely, the whole world system of present-day multinational capitalism.
--- **Fredric Jameson**, "Postmodernism, or the Cultural Logic of Late Capitalism." *New Left Review* 146. July/August 1984.

We may be anesthetized to it now, but the truth is, clicking on links once had a certain air of sedition to it, back in the early days of hypertext, before the overnight success of the World Wide Web.
---**Steven Johnson**, *Interface Culture: How New Technology Transforms the Way We Create and Com-municate* (San Francisco: Basic Books, 1997), 123.

The most profound change ushered in by the digital revolution will not involve bells and whistles or new programming tricks. It will not come in the form of a 3-D Web browser or voice recognition or artificial technology. The most profound change will be with our own generic expectations about the interface itself. We will come to think of interface design as a kind of art form—perhaps the art form of the next century.
--- **Steven Johnson**, *Interface Culture: How New Technology Transforms the Way We Create and Com-municate* (San Francisco: Basic Books, 1997), 213.

K

What alchemical transformation occurs when you connect everything to everything?
--- **Kevin Kelly**, *Out of Control: The New Biology of Machines, Social Systems and the Economic World* (London: Fourth Estate, 1994), 297.

Postmodern humans swim in a third transparent medium now materializing. Every fact that can be digitized, is. Every measurement of collective human activity that can be ported over a network, is. Every trace of an individual's life that can be transmuted into a number and sent over a wire, is. This wired planet becomes a torrent of bits circulating in a clear shell of glass fibers, databases, and input devices.
--- **Kevin Kelly**, *Out of Control: The New Biology of Machines, Social Systems and the Economic World* (London: Fourth Estate, 1994), 440

While some intellectuals and politicians may scoff at the candidate's "image"—and while it may in fact be based only on a candidate's TV impression, ignoring his record, views, and other appearances—my own conviction is that these images or impressions are likely to be uncannily correct.
--- **John F. Kennedy**, "Television: A Force in Politics." *TV Guide*. Nov. 14, 1959, 6-7. Quoted in J. Fred McDonald, *Television and the Red Menace* (New York: Praeger, 1985), 151.

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The Gulf War is the best-known and most profoundly disturbing instance of the triumph of video and computer imagery in the popular media. As everyone knows, this was a war whose most lasting image is that of the smart bomb's point of view as represented on a low-resolution black-and-white video screen. During the war, our television screens were dominated by simulated imagery of video-game-like battles, computer-generated strategic maps, and of course, CNN video reports.
--- **Lynne Kirby**, "Death and the Photographic Body," in Patrice Petro, ed. *Fugitive Images: From Photography to Video* (Bloomington and Indianapolis: Indiana University, 1995), 73.

The army's newest computer-simulation war game is a "Desert Storm" tank battle recreated by computer from actual footage shot during the war, such that the real battle functions retroactively as the test for the simulated imagery. in a sense, television during the war cloaked itself in modernism, turning its own technological base (and stepchildren in computer-related imaging) inward and spurning the photochemical image.
--- **Lynne Kirby**, "Death and the Photographic Body," in Patrice Petro, ed. *Fugitive Images: From Photography to Video*, (Bloomington and Indianapolis: Indiana University, 1995), 73.

Photography traffics in fixed, stable images; electronics in highly unstable ones. Photography gives the viewer a material trace to scrutinize at length, rip out of the newspaper, pause to exam and return to. Video, as television image, is ephemeral, unlasting, and inscrutable, except in the utterly exceptional repetition of the Rodney King footage, which, ironically and tragically, did not sustain the extended gaze of analysis.
--- **Lynne Kirby**, "Death and the Photographic Body," in Patrice Petro, ed. *Fugitive Images: From Photography to Video* (Bloomington and Indianapolis: Indiana University, 1995), 73.

It is not a question of what an artist should do, but what he will do with technology. Whether technology is good or bad, threatening or friendly, beautiful or ugly is irrelevant. The qualities and shapes of technology are not the proper concern of the artist.
--- **Billy Klüver**, "Theater and Engineering—An Experiment: Notes by an Engineer" (1967), in *Theories and Documents of Contemporary Art*, ed. Kristine Stiles and Peter Selz (Berkeley: UC Press, 1996), 412.

A scientist could not work with an artist. What would they talk about? ESP? The beauty of the stars?
--- **Billy Klüver**, "Theater and Engineering—An Experiment: Notes by an Engineer" (1967). in *Theories and Documents of Contemporary Art*. Ed. Kristine Stiles and Peter Selz. Berkeley: UC Press, 1996, p.412.

There is an extremely new domain being constructed, which partly undermines architecture or eliminates the reason for being of architecture—the electronic domain. Now is an existential moment for a discipline that will decide whether it will be a dinosaur or whether it will be reinvented.
--- **Rem Koolhaas**, in Arthur Lubow, "The Architect's Architect in the Architect's Time." *The New York Times Magazine*, July 9, 2000, 63.

I travel alone with my portapak on my back, as Vietnamese women do with their babies. I like Video, because it's heavy.
--- **Shigeko Kubota**, "Video Poem," in *Video Art: An Anthology*, ed. Ira Schneider and Beryl Korot (New York: Harcourt, Brace, Jovanovich, 1976), 83.

L

Eventually, much of what will end up on the Internet will be corporate stuff, advertising, entertainment, material from government agencies, and so on. The possibilities for exercising social control are quite remarkable. Take the way Ross Perot tried to set up these community forums around the country, as if they were real community forums. Fifty million people all with access to Perot—that's ridiculous! Perot is up there for an hour; how many can ask him a single question, let alone follow up? Twenty? Well, twenty people have "access" to Perot, not fifty million, and he still controls the format. Politicians will want to make this look like a serious form of inquiry. It isn't.
--- **George Lakoff**, "Body, Brain, and Communication: Interview with Iain A. Boal," in *Resisting the Virtual Life* (San Francisco: City Lights, 1995), 129.

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Modern life, tumultuous and full of speed, dynamic and full of contrasts, comes to batter furiously at this delicate and luminous edifice, which emerges coolly from chaos.
--- **Fernand Léger**, "The Human Body Considered as an Object" (1945). in *Theories and Documents of Contemporary Art*, ed. Kristine Stiles and Peter Selz (Berkeley: UC Press, 1996), 178.

He wondered no longer why the League delayed their attack so long. They were not coming. They had thought his message a trick, a trap. Or, for all he knew, he had misremembered the coordinates: one figure wrong had sent his message out into the void where there was neither time nor space. And for that, Raho had died, Iot had died, Mogien had died: for a message that got nowhere. And he was exiled here for the rest of his life, useless, a stranger in an alien world.
--- **Ursula K. Le Guin**. *Rocannon's World* (1966), in *Worlds of Exile and Illusion* (New York: Tom Doherty, 1995), 109.

Television can't be used as an art medium because it already is art. CBS, NBC, and ABC are among the greatest producers of art in the world.
--- **Les Levine**, quoted in Gene Youngblood, *Expanded Cinema* (New York: EP Dutton and Co., 1970), 337.

It is shortsighted to suppose that machines, i.e. the displacement of manual by mechanical processes, are basic to the development of the form and the figure of an artifact. in the first place it is the consumers' demand that determines the development, i.e. the demand of the social strata that provide the commissions. Today this is not a narrow circle anymore, but everybody, the masses.
--- **El Lissitzky**, "Unser Buch," in *El Lissitzky*, ed. Sophie Lissitzky-Küppers (Dresden: VEB-Verlag der Kunst, 1967), 357.

Eclecticism is the degree zero of contemporary general culture: one listens to reggae, watches a Western, eats McDonald's food for lunch and local cuisine for dinner, wears Paris perfume in Tokyo and "retro" clothes in Hong Kong; knowledge is a matter for TV games.
--- **Jean-François Lyotard**, "What is Postmodernism?" 1982. Reprinted in *Art in Theory 1900-1990: An Anthology of Changing Ideas*, ed. Charles Harrison and Paul Wood (Oxford: Blackwell Publishers, 1993), 1010.

We need machines that suffer from the burden of their memory. Your thinking machines will have to be nourished not just on radiation but on irremediable gender difference.
--- **Jean-François Lyotard**, quoted in Clauda Springer, "Sex, Memories, Angry Women," in *Flame Wars: The Discourse of Cyberculture*, ed. Mark Dery (Durham: Duke, 1994), 171.

M

Computer animation films are not competitive with films made with traditional animation techniques. Although these kinds of artworks are often still classified, exhibited and juried as computer artworks, it would be more appropriate to include them within more traditional art venues.
--- **Roger Malina**, *Digital Image—Digital Camera: The Work of Art in the Age of Post-Mechanical Reproduction: Leonardo Supplement Issue*, 1990, (Oxford: Pergamon Press, 1990).

We will sing of great crowds excited by work, by pleasure, and by riot; we will sing of the multicolored, polyphonic tides of revolution in the modern capitals; we will sing of the vibrant nightly fervour of arsenals and shipyards blazing with violent electric moons; greedy railway stations that devour smoke-plumed serpents; factories hung on clouds by the crooked lines of their smoke; bridges that stride the rivers like giant gymnasts, flashing in the sun with a glitter of knives; adventurous steamers that sniff the horizon; deep-chested locomotives whose wheels paw the tracks like the hooves of enormous steel horses bridled by tubing; and the sleek flight of planes whose propellers chatter in the wind like banners and seem to cheer like an enthusiastic crowd.
--- **Filippo Tommaso Marinetti**, "The Foundation and Manifesto of Futurism," first published in *Le Figaro*, 1909. Reprinted in *Art in Theory 1900-1990: An Anthology of Changing Ideas*, ed. Charles Harris and Paul Wood (Oxford: Blackwell Publishers, 1993), 147.

Come on! Set fire to the library shelves! Turn aside the canals to flood the museums! Oh, the joy of seeing the glorious old canvases bobbing adrift on those waters, discoloured and shredded! Take up

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your axes and hammers and wreck, wreck the venerable cities, pitilessly!
--- **Filippo Tommaso Marinetti**, "The Foundation and Manifesto of Futurism," first published in *Le Figaro*, 1909. Reprinted in *Art in Theory 1900-1990: An Anthology of Changing Ideas*, ed. Charles Harris and Paul Wood (Oxford: Blackwell Publishers, 1993), 148.

After three thousand years of explosion, by means of fragmentary and mechanical technologies, the Western world is imploding. During the mechanical ages we had extended our bodies into space. Today, after more than a century of electric technology, we have extended our central nervous system itself in a global embrace, abolishing both space and time as far as our planet is concerned.
--- **Marshall McLuhan**, *Understanding Media*. London, 1964, 3. Reprinted in *Art in Theory 1900-1990; An Anthology of Changing Ideas*, ed. Charles Harris and Paul Wood (Oxford: Blackwell Publishers, 1993), 738.

As electronically contracted, the globe is no more than a village.
--- **Marshall McLuhan**, *Understanding Media*. (1964). Reprinted in *Art in Theory 1900-1990: An Anthology of Changing Ideas*, ed. Charles Harrison and Paul Wood (Oxford: Blackwell Publishers, 1993), 739.

By his very success in inventing labor-saving devices, modern man has manufactured an abyss of boredom that only the privileged classes in earlier civilizations have ever fathomed.
--- **Lewis Mumford**. *The Conduct of Life* (New York: Harcourt Brace & Company, 1951).

If we wish to retain the benefits of the machine, we can no longer afford to deny its chief social implication: namely, basic communism.
--- **Lewis Mumford**, *Technics and Civilization* (New York: Harcourt Brace & Company, 1934), 406.

N

The change from atoms to bits is irrevocable and unstoppable.
--- **Nicholas Negroponte**, *Being Digital* (New York: Alfred A. Knopf, 1995), 4.

An environmental humanism might only be attainable in cooperation with machines that have been thought to be inhumane devices but in face are devices that can respond intelligently to tiny, individual, constantly changing bits of information that reflect the identity of each urbanite as well as the coherence of the city. These devices need the adaptability of humans and the specificity of present-day machines.
--- **Nicholas Negroponte**. *The Architecture Machine: Toward a More Human Environment* (Cambridge, MA: MIT Press, 1970), 5.

O

I am for the art that grows in a pot, that comes down out of the skies at night, like lightning, that hides in the clouds and growls. I am for art that is flipped on and off with a switch.
I am for an art you can hammer with, stitch with, sew with, paste with, file with.
I am for the art of the washing machine.
--- **Claes Oldenburg**, "I Am for an Art..." first version 1961. Reprinted in *Art in Theory 1900-1990: An Anthology of Changing Ideas*, ed. Charles Harris and Paul Wood (Oxford: Blackwell Publishers, 1993), p. 728.

I would like to see the sky machine on every corner of the street instead of the coke machine. We need more skies than coke.
--- **Yoko Ono**, "To the Wesleyan People" (1966) in *Theories and Documents of Contemporary Art*, ed. Kristine Stiles and Peter Selz (Berkeley: UC Press, 1996), 737.

When you see something that is technically sweet, you go ahead and do it and you argue about what to do about it only after you have had your technical success. That is the way it was with the atomic bomb.
--- **J. Robert Oppenheimer**, in *The Matter of J. Robert Oppenheimer*. (New York: Praeger, 1954), 81.

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We have made a thing, a most terrible weapon, that has altered abruptly and profoundly the nature of the world…a thing that by all the standards of the world we grew up in is an evil thing. And by so doing…we have raised again the question of whether science is good for man, or whether it is good to learn about the world, to try to understand it, to try to control it.

--- **J. Robert Oppenheimer**, addressing the America Philosophical Society, 1945. Quoted in Paul Boyer, *By the Bomb's Early Light: American Thought and Culture at the Dawn of the Atomic Age* (New York: Pantheon, 1985), 273.

Winston turned a switch and the voice sank somewhat, though the words were still distinguishable. The instrument (the telescreen, it was called) could be dimmed, but there was no way of shutting it off completely…The telescreen received and transmitted simultaneously. Any sound that Winston made, above the level of a very low whisper, would be picked up by it; moreover, so long as he remained within the field of vision which the metal plaque commanded, he could be seen as well as heard. There was of course no way of knowing whether you were being watched at any given moment.

--- **George Orwell**, *1984* (New York: Signet, 1949), 6.

P

Once on videotape, you are not allowed to die.

--- **Nam June Paik**, "Input-Time and Output-Time," in *Video Art: An Anthology*, ed. Ira Schneider and Beryl Korot (New York: Harcourt, Brace, Jovanovich, 1976), 98.

My greatest dream is the projection of light into the vast night sky, the probing of the universe as it meets the light, untouched, without obstacles-—the world of space is the only one to offer man practically unlimited freedom. Why is there no art in space, why do we have no exhibitions in the sky?

--- **Otto Piene**, "Paths to Paradise" (1961) in *Theories and Documents of Contemporary Art*, ed. Kristine Stiles and Peter Selz (Berkeley: UC Press, 1996), 409.

It seems to me that the modern painter cannot express this age, the airplane, the atom bomb, the radio, in the old forms of the Renaissance or of any past culture. Each age finds its own technique.

--- **Jackson Pollock**, "Interview with William Wright," (1950) in *Theories and Documents of Contemporary Art*, ed. Kristine Stiles and Peter Selz (Berkeley: UC Press, 1996), 22.

Many contemporary artists independently involved in developing these technogenres acknowledge a profound ambivalence about the corporate-military origins and intended applications of the tools they use, and that attitude is often strongly reflected in the content of their work.

--- **Jim Pomeroy**, "Black Box S-Thetix: Labor, Research, and Survival in the He[Art] of the Beast," in Andrew Ross and Constance Penley, *Technoculture* (Minneapolis: University of Minnesota, 1991), 273.

Technological art is even less likely to fulfill the aesthetes' divine regard for "timeless" art, since a good deal of the art produced with advanced tools can become obsolete quite quickly. It will often wear out, literally, and can quickly exhaust its supply of replacement components, machinable repairs, or service knowledge. Or its novelty will fade in the wake of newer, glitzier toys rolling off the assembly line. Gadgetry for its own sake won't appeal for long…

--- **Jim Pomeroy**, "Black Box S-Thetix: Labor, Research, and Survival in the He[Art] of the Beast," in Andrew Ross and Constance Penley, *Technoculture* (Minneapolis: University of Minnesota, 1991), 277.

I browsed the World Wide Web. I fished it from my node on a building host that served up more megabits a second than I could request. By keying in short electronic addresses, I connected to machines all over the face of the earth. The Web: yet another total disorientation that became status quo without anyone realizing it.

--- **Richard Powers**, *Galatea* 2.2 (New York: Farrar Straus Giroux, 1995), 7.

The town had been knitted into a loose-weave, global network in my absence. The Web seemed to be self-assembling. Endless local investigations linked up with each other like germs of ice crystal merging to fill a glass pane.

--- **Richard Powers**, *Galatea* 2.2 (New York: Farrar Straus Giroux, 1995), 7.

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If our world survives, the next great challenge to watch out for will come—you heard it here first—when the curves of research and development in artificial intelligence, molecular biology and robotics all converge. Oboy. It will be amazing and unpredictable, and even the biggest of brass, let us devoutly hope, are going to be caught flat-footed. It is certainly something for all good Luddites to look forward to if, God willing, we should live so long.
--- **Thomas Pynchon**, "Is it O.K. to be a Luddite?" *The New York Times Book Review*. 28 October 1984, pp. 1, 40-41.

For it was now like walking among matrices of a great digital computer, the zeroes and ones twinned above, hanging like balanced mobiles right and left, ahead, thick, maybe endless. Behind the hieroglyphic streets there would either be a transcendent meaning, or only the earth.
--- **Thomas Pynchon**, *The Crying of Lot 49* (New York: J. B. Lippincott Company, 1966). Reprint (New York: Harper & Row, 1986), 181.

R

A 45-year-old right-handed woman presented with a four-year history of recurrent episodes of a feeling of pressure in her head, epigastric distress, and mental confusion. These episodes were triggered by the voice of a female co-host on a popular television entertainment program.
--- **Venkat Ramani, M.D.**, "Audoigenic Epilepsy Induced by a Specific Television Performer." *New England Journal of Medicine* 325, no. 2, 11 July 1991, 134-135.

The cyberspace experience is destined to transform us in other ways because it is an undeniable reminder of a fact we are hypnotized since birth to ignore and deny—that our normal state of consciousness is itself a hyper-realistic simulation. We build models of the world in our minds using the data from our sense organs and the information-processing capabilities of our brain. We habitually think of the world we see as "out there," but what we are seeing is really a mental model, a perceptual simulation that exists only in our brain. That simulation capability is where human minds and digital computers share a potential for synergy.
--- **Howard Rheingold**, *Virtual Reality: The Revolutionary Technology of Computer-Generated Artifical Worlds and How it Promises to Transform Society* (London: Secker and Warburg, 1991), 387-8.

The psy-fi impulse, which pressures towards re-fusing separation through merger with technology across the outer limits of intra-psychic space, represents an alternative plan for the future, one that is not only patented or parented along reproductive lines or in interpersonal columns.
--- **Laurence Rickels**, "the art of psy fi," *Narcissistic Disturbance* (LA: Otis Gallery, 1995), 16-25.

But while humankind beams up into merger with the techno-apparatus, there's another body of separation around, dead or alive, that keeps us close to the traumatic opening of the take-off of flights of science fantasy. Already in the Faustian era of psy-fi the miraculous non-contradiction of the machine-being can't help but turn the corporeal lover into a leftover appendage tagged for evolutionary extinction. What follows (like clockwork) in these early stories of man's falling in love or self-love with robot woman is destruction of the machine and the gadget lover's suicide. The merger didn't go through. The destroyed apparatus was his better half, and suicide follows as the down side or slide of replication and auto-technologization.
--- **Laurence Rickels**, "the art of psy fi", *Narcissistic Disturbance* (LA: Otis Gallery 1995), 16-25.

Technoculture...is located as much in the work of everyday fantasies and actions as at the level of corporate or military decision making.
--- **Andrew Ross and Constance Penley**, introduction to *Technoculture* (Minneapolis: University of Minnesota, 1991), xiii.

Activism today is no longer a case of putting bodies on the line; increasingly, it requires and involves bodies-with-cameras.
--- **Andrew Ross and Constance Penley**, introduction to *Technoculture* (Minneapolis: University of Minnesota, 1991), xv.

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S

The Communists smother the truth with their falsehoods. Through radio and television, the motion picture and the printed word, we have a great opportunity to reveal the truth to the rest of the world. We must expose their lies and spike their false propaganda.
--- **Brigadier General David Sarnoff**, chairman of the board of RCA, Broadcasting, July 10, 1950, p. 15. Quoted in J. Fred McDonald, *Television and the Red Menace* (New York: Praeger, 1985), 16.

There comes a time when the operation of the machine becomes so odious, makes you so sick at heart, that you can't take part, you can't even possibly take part; and you've got to put your bodies upon the gears and upon the wheels, upon all the apparatus, and you've got to make it stop. And you've got to indicate to the people who run it, the people who own it, that unless you're free, the machine will be prevented from working at all.
--- **Mario Savio**, speech delivered at the Free Speech Movement, University of California, Berkeley, September, 1964.

THIS IS THE FUTURE, and it is yours. You've finished your breakfast coffee and you move toward the garage and the car. It's 90 miles to work and, glancing at your watch, you see you have an hour to get there. Plenty of time…For the next 50 minutes, your car will be a mechanical robot, an electronic wizard with glowing vacuum tubes dimly lighting its infallible brain. This genie of yours will accept every radioed command and drive your car, with complete safety. You will do nothing.
--- **Bill and Sue Severn**, *Highways to Tomorrow* (Englewood Cliffs, NJ: Prentice Hall, 1959, 1-2. Quoted in Edward Dimendberg, "The Will to Motorization: Cinema, Highways, and Modernity." October 73 (Summer 1995), 129-130.

I much prefer this new system whereby a computerized voice rather than the operator gives you the number you want. The sound of long-distance interference on the phone, or static on the car radio, is, to me, reassuring, sensuous, even beautiful.
--- **David Shields**, *Remote* (New York: Knopf, 1996), 12.

The cybernet is in place. If fusion is real, we'll find out about it fast. The old information elites are crumbling. The kids are at the controls.
--- **R.U. Sirius and Queen Mu**, first editor's note, *Mondo 2000* 1, 1989.

We're talking about Total Possibilities. Radical assaults on the limits of biology, gravity and time. The end of Artificial Scarcity. The dawn of a new humanism. High-jacking technology for personal empowerment, fun and games. Flexing those synapses!
--- **R.U. Sirius and Queen Mu**, first editor's note, *Mondo 2000* 1, 1989.

To understand the advertisements which appear in the New Yorker or Gentry, one must have taken a course in Dublin Literature, read a Time popularizing article on cybernetics, and have majored in Higher Chinese Philosophy and Cosmetics. Such ads are packed with information-data as a way of life and a standard of living which they are simultaneously inventing and documenting. Ads which do not try to sell you the product except as an accessory of a way of life. They are good "images" and their technical virtuosity is almost magical.
--- **Alison and Peter Smithson**, 1956, quoted in Lynne Cooke, "The Independent Group: British and American Pop Art, A 'Palimpcestuous' Legacy." in Kirk Varnedoe and Adam Gopnik, eds. *Modern Art and Popular Culture: Readings in High and Low* (New York: Abrams, 1990), 192.

The tools of technology become a part of the Earth's geology as they sink back to their original state. Machines like dinosaurs must return to dust or rust.
--- **Robert Smithson**, "A Sedimentation of the Mind: Earth Projects," 1968. Reprinted in *Art in Theory 1900-1990: An Anthology of Changing Ideas*, ed. Charles Harrison and Paul Wood (Oxford: Blackwell Publishers, 1993), 865.

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Hitler's dictatorship was the first dictatorship of an industrial state in this age of modern technology, a dictatorship which employed to perfection the instruments of modern technology to dominate its own people.
--- **Albert Speer**, *Inside the Third Reich*, trans. Richard and Clara Winston (New York: Avon, 1974), 653.

Miniaturized and bio-compatible, technology implodes back to the body, not only landing on the skin but embedding itself as an internal component… Evolution ends when technology invades the body.
--- **Stelarc**, "Beyond the Body: Amplified Body, Laser Eyes, and Third Hand" (1986), in *Theories and Documents of Contemporary Art*, ed. Kristine Stiles and Peter Selz (Berkeley: UC Press, 1996), 427.

Technology equalizes the physical potential of human bodies and standardizes human sexuality. With the possibility of nurturing the fetus outside the womb there technically will be no birth. And if the replacement of malfunctioning parts can be facilitated then there would be no reason for death.
--- **Stelarc**, "Beyond the Body: Amplified Body, Laser Eyes, and Third Hand" (1986), in *Theories and Documents of Contemporary Art*, ed. Kristine Stiles and Peter Selz (Berkeley: UC Press, 1996), 430.

Skin has become inadequate in interfacing with reality. Technology has become the body's new membrane of existence.
--- **Stelarc**, "Beyond the Body: Amplified Body, Laser Eyes, and Third Hand" (1986), in *Theories and Documents of Contemporary Art*, ed. Kristine Stiles and Peter Selz (Berkeley: UC Press, 1996), 430.

The franchise and the virus work on the same principle: what thrives in one place will thrive in another. You just have to find a sufficiently—xerox it, and embed it in the fertile lining of a well-traveled highway…When a businessman from New Jersey goes to Dubuque, he knows he can walk into a McDonalds and no one will stare at him. He can order without looking at the menu, and the food will always taste the same. McDonald's is Home, condensed into a three-ring binder and xeroxed. "No surprises" is the motto of the franchise ghetto, its Good Housekeeping seal, subliminally blazoned on every sign and logo…The people of America, who live in the world's most surprising and terrible country, take comfort in that motto.
--- **Neal Stephenson**, *Snow Crash* (New York: Bantam Books, 1993), 190-191.

 As we get to the end of the mechanical age, and we start into a different kind of age, the definitions of what changes agency become very hard to actually talk about. The closer you look at them, the harder they are to find. That's a riff on Heisenberg, if you will. For the same reasons: an interface is a metaphor. We used to think of it as a physical object, a keyboard…but interfaces are metaphors, and they stand in for absent structures, and the absence is the important word there, they're ABSENT structures. They're not where you could see them. It doesn't even mean that they are inside the machine, but they're in an elsewhere, they're in a virtual location. You can call that "location" cyberspace, or you can call it symbolic exchange—there are lots of words that you can use for interfaces.
But they work, anyway; they have tremendous power.
---**Allucquere Rosanne Stone** interview, found at http://sandystone.com/Mondo-interview.

A lot of schools and businesses don't let people get online, because they think of access to the Net as a chance to just fuck around. But this is the future of computation…the idea of the ludic sensibility, the idea of experimentation. Unstructured messing around, invoking a sense of fun, and of mystery…all of the things that are important to the learning experience, which is not a dry, soulless thing. When we first start doing it on our own, before we get into schools, it's always a thing that's filled with mystery, and it's filled with danger and with fun and humor, and with chance encounters.
--- **Allucquere Rosanne Stone** interview found at http://sandystone.com/Mondo-interview.

T

I erase tapes. Some of my best tapes are gone forever. Demagnetized into the world of anti-matter. No wonder I never get a grant…Erase your tapes. Fight art pollution.
--- **Anne Tardos**, "Confessions of an Erasist." in *Video Art: An Anthology*, ed. Ira Schneider and Beryl Korot (New York: Harcourt, Brace, Jovanovich, 1976), 129.

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The history of the living world can be summarized as the elaboration of ever more perfect eyes within a cosmos in which there is always something more to be seen.
--- **Pierre Teilhard de Chardin**, *The Phenomenon of Man* (New York: Harper and Row, 1959), 31.

The greatest good will come from the technical improvements tending to unification and harmony, and my wireless transmitter is pre-eminently such. By its means the human voice and likeness will be reproduced everywhere and factories driven thousands of miles from waterfalls furnishing the power; aerial machines will be propelled around the earth without a stop and the sun's energy controlled to create lakes and rivers for motive purposes and transformation of arid deserts into fertile land.
--- **Nikola Tesla** (1899) quoted in Erik Davis, *TechGnosis: Myth, Magic and Mysticism in the Age of Information* (New York: Three Rivers Press, 1998), 72.

We have no conception of what being a lawyer will mean twenty years hence. Most probably, lawyers will be computers.
--- **Alvin Toffler**, "The Future as a Way of Life," Horizon (Summer, 1965) quoted in Gene Youngblood, *Expanded Cinema* (New York: EP Dutton and Co., 1970), 51.

U

People imagine that programming is logical, a process like fixing a clock. Nothing could be further from the truth. Programming is more like an illness, a fever, an obsession. It's like those dreams in which you have an exam but you remember you haven't attended the course. It's like riding a train and never being able to get off.
--- **Ellen Ullman**, "Reflections on the Programming Life," in *Resisting the Virtual Life*. Ed. James Brook and Iain A. Boal (San Francisco: City Lights, 1995), 131.

Science is a cemetery of dead ideas.
--- **Miguel de Unamuno**, *The Tragic Sense of Life* (Mineola: Dover Publications, 1913).

V

Voices in the sky, as though magic, invisible hands were turning on and off the knobs of fantastic radios, filling all space, criss-crossing, overlapping, penetrating each other, colliding, crashing. Phrases, slogans, utterances, chants, proclamations. China, Russian, Spain, the Fascist states and the opposing democracies all breaking their paralyzing crusts.
--- **Edgar Varese**, *Espace*, 1929.

Oh, for an an architecture: Whose construction is realistically buildable and whose electronic technology is excitingly not obsolete…Whose aesthetic explores electronics—rather than exalts engineering… Viva an electronic aesthetic—over the machine aesthetic!
--- **Robert Venturi**, "A Not So Gentle Manifesto," *Iconography and Electronics upon a Generic Architecture* (Cambridge, MA: MIT Press, 1996), 11-16.

Once we are definitively removed from the realm of direct or indirect observation of synthetic images created by the machine for the machine, instrumental virtual images will be for us the equivalent of what a foreigner's mental pictures already represent: an enigma. Having no graphic or videographic outputs, the automatic-perception thesis will function like a kind of mechanized imaginary from which, this time, we will be totally excluded.
--- **Paul Virilio**, *The Vision Machine*, trans. Julie Rose (Bloomington and Indianapolis: Indiana University Press, 1994), 60.

To my mind, this is one of the most crucial aspects of the development of the new technologies of digital imagery and of the synthetic vision offered by electron optics: the relative fusion/confusion of the factual (or operational, if you prefer) and the virtual; the ascendancy of the "reality effect" over a reality principle already largely contested elsewhere, particularly in physics.
--- **Paul Virilio**, *The Vision Machine*, trans. Julie Rose (Bloomington and Indianapolis: Indiana University Press, 1994), 60.

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W

I think everybody should be a machine. I think everybody should like everybody.
--- **Andy Warhol**, in an interview with Gene Swenson. "What is Pop Art?" *Art News*, Nov. 1963. Reprinted in *Art in Theory 1900-1990: An Anthology of Changing Ideas*, ed. Charles Harrison and Paul Wood (Oxford: Blackwell Publishers, 1993), 731.

All my films are artificial, but then everything is artificial. I don't know where the artificial stops and the real starts.
--- **Andy Warhol**, 1987. in *Theories and Documents of Contemporary Art*, ed. Kristine Stiles and Peter Selz (Berkeley: UC Press, 1996), 344.

The virtual environment is not the real world, but a representation of the real as artificial reality, where wish fulfillment still corresponds to reality, where interior and exterior, imagination and reality, I and other are all bridged, a penetrable pictorial space . . . a psychotic environment where the boundaries between wish and reality are blurred.
--- **Peter Weibel**, "Virtual Worlds: The Emperor's New Body," Ars Electronica v.2, ed. Gottfried Hattinger, et.al. 1990.

Virtual machines create the tele-body and thus represent the emperor's, the spirit's, new bodies . . .The role of the spectator as the bridge across the real and simulated represents the quantum mechanical constraints of the digital dream. Virtual worlds exist at the borderline between digital dream and quantum mechanics, evoking an environment controlled and created by a computer, but reacting to human needs and ideas.
--- **Peter Weibel**, "Virtual Worlds: The Emperor's New Body," *Ars Electronica* v.2, ed. Gottfried Hattinger, et.al. 1990.

To say that the computer was initially used mainly to do things pretty much as they had always been done, except to do them more rapidly or, by some criteria, more efficiently, is not to distinguish it from other tools. Only rarely, if indeed ever, are a tool and an altogether original job it is to do, invented together. Tools as symbols, however, invite their imaginative displacements into other than their original contexts. in their new frames of reference, that is, as new symbols in an already established imaginative calculus, they may themselves be transformed, and may even transform the original prescriptive calculus. These transformations may, in turn, create entirely new problems that then engender the invention of hitherto literally unimaginable tools.
--- **Joseph Weizenbaum**, *Computer Power and Human Reason* (Harmondsworth: Penguin Books, 1976).

You can never depend on the mass media to reflect us or our needs or our states of mind; bottom line, with enough gestures we can deafen the satellites and lift the curtains surrounding the control room.
--- **David Wojnarowicz**, *Close to the Knives: A Memoir of Disintegration* (New York: Vintage Books, 1991), 123.

Y

When we say expanded cinema we actually mean expanded consciousness. Expanded cinema does not mean computer films, video phosphors, atomic light, or spherical projections. Expanded cinema isn't a movie at all: like life it's a process of becoming, man's ongoing historical drive to manifest his consciousness outside of his mind…This is especially true in the case of the intermedia network of cinema and television, which now functions as nothing less than the nervous system of mankind.
--- **Gene Youngblood**, *Expanded Cinema* (New York: EP Dutton and Co., 1970), 41.

The computer does not make man obsolete. It makes him failsafe. The computer does not replace man. It liberates him from specialization…The computer is the arbiter of radical evolution: it changes the meaning of life. It makes us children. We must learn how to live all over again.
--- **Gene Youngblood**, *Expanded Cinema* (New York: EP Dutton and Co., 1970), 180.