The Cybernetic Self
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This is one of 50 posts about cyborgs - a project to commemorate the 50th anniversary of the coining of the term.

The word “cybernetic” derives from a Latin word, kybernetes, meaning “rudder” or “governor”. A cybernetic process is a control system that uses feedback about it’s actions in an environment to better adapt it’s behavior. The cybernetic organism, or “cyborg”, is a class of cybernetic systems that have converged with biological organisms. In this increasingly mythologized form, the cyborg embodies the ongoing dialectic between humanity & technology, and is an aspirational figure onto which we project our superhuman fantasies. While it offers security, enhancement, and corporeal salvation the cyborg also presents an existential threat to the self and to the cherished notions of being uniquely human.

It’s a gamble but we don’t seem able to leave the table. As we offload more of our tasks into technology we enhance our adaptability while undermining our own innate resilience as animals. We wrap ourselves in extended suits of shelter, mobility, health, and communications. We distribute our senses through a global network of hypermedia, augmenting our brains with satellites & server farms & smart phones. Increasingly, our minds & bodies are becoming the convergence point for both the real & the virtual, mediated through miniaturization, dematerialization, and nano-scale hybridization. Our ability to craft the world around us is quickly advancing to give us the ability to craft our bodies & our selves.

Computation is miniaturizing, distributing, and becoming more powerful & efficient. It’s moving closer & closer to our bodies while ubiquitizing & dematerializing all around us. The cybernetic process has refined this most adaptive capacity in little more than 50 years to be right at hand, with us constantly, connected to a global web of people, places, things, information, and knowledge. We are co-evolving with our tools, or what Kevin Kelly refers to as the Technium - the seemingly-intentional kingdom of technology. As Terence McKenna suggested, we are like coral animals embedded in a technological reef of extruded psychic objects. By directly illustrating how our own fitness & bio-survival becomes bound to the survival of our technology, the cyborg is a fitting icon for this relationship.

Technology has historically been regarded as something we cast into the world separate from ourselves but it’s worth considering the symbiosis at play and how this relationship is changing the very nature of humanity. As we venture deeper & deeper into the Technium, we lend ourselves to it’s design. By embracing technology as part of our lives, as something we rely upon and depend on, we humanize it and wrap it in affection. We routinely fetishize & sexualize cool, flashy tech. In doing so we impart emotional value to the soul-less tools of our construction. We give them
both life & meaning. By tying our lives to theirs, we agree to guarantee their survival. This arrangement is a sort of alchemical wedding between human & machine, seeking to yield gold from this mixture of blood & metal, uncertain of the outcome but almost religiously compelled to consummate.

In the modern world, our identities include the social networks & affinity groups in which we participate, the digital media we capture & create & upload, the avatars we wear, and the myriad other fragments of ourselves we leave around the web. Who we are as individuals reflects the unique array of technologies through which we engage the world, at times instantiated through multiple masks of diverse utility, at other times fractured & dis-integrated - too many selves with too many virtual fingers picking at them. Our experience of life is increasingly composed of data & virtual events, cloudy & intangible yet remote-wired into our brains through re-targeted reward systems. A Twitter re-tweet makes us happy, a hostile blog comment makes us angry, the real-time web feeds our addiction to novelty. Memories are offloaded to digital storage mediums. Pictures, travel videos, phone numbers, thoughts & treatises... So much of who we are and who we have been is already virtualized & invested in cybernetic systems. All those tweets & blog posts cast into the cloud as digital moments captured & recorded. Every time I share a part of me with the digital world I become copied, distributed, more than myself yet... in pieces.

It can be said that while we augment & extend our abilities through machines, machines learn more about the world through us. The web 2.0 social media revolution and the semantic web of structured data that is presently intercalating into it has brought machine algorithms into direct relationship with human behavior, watching our habits and tracking our paths through the digital landscape. These sophisticated marketing and research tools are learning more and more about what it means to be human, and the extended sensorium of the instrumented world is giving them deep insight into the run-time processes of civilization & nature. The spark of self-awareness has not yet animated these systems but there is an uneasy agreement that we will continue to assist in their cybernetic development, modifying their instructions to become more and more capable & efficient, perhaps to the point of being indistinguishable from, or surpassing, their human creators.

In Ridley Scott's Blade Runner, the young Tyrell Corporation assistant, Rachel, reflects on her childhood memories while leafing through photographs of her youth. These images are evidence of her past she uses to construct her sense of self. Memories provide us with continuity and frame the present & future by reminding us of our history - critical for a species so capable of stepping out of time. Rachel's realization that she is a replicant, that her memories are false implants deliberately created to make her believe she's human, precipitates an existential crises that even threatens Harrison Ford's character, Rick Deckard, surrounded as he is by photos of his own supposed past. This subtle narrative trick suggests that replicants will be
more human-like if they don’t know they’re replicants. But it also invokes another query: If memories are (re-)writable, can we still trust our own past?

Yet both characters do appear quite human. They laugh and cry and love and seem driven by the same hopes and fears we all have. Ridley Scott’s brilliance - and by extension, Philip K. Dick’s - is to obscure the nature of the self and of humanity by challenging our notions of both. Is Rachel simply another mannequin animated by advanced cybernetics or is she more than that? Is she human enough? When the Tyrell bio-engineer J.F. Sebastian sees the Nexus 6 replicants, Pris and Roy Batty, he observes “you’re perfect”, underlining again the aspirational notion that through technology we can be made even better, becoming perhaps “more human than human”. This notion of intelligent artificial beings raises deep challenges to our cherished notions of humanity, as many have noted. But the casual fetishization of technology, as it gets nearer & friendlier & more magical, is perhaps just as threatening to our deified specialness in it’s subtle insinuation into our hands & hearts & minds.

In Mamoru Oshii’s anime classic, Ghost in the Shell, the female protagonist - a fully-engineered and functional robotic human named Kusanagi - at once decries those who resist augmentation, suggesting that “your effort to remain as you are is what limits you”, while simultaneously becoming engaged in a quest to determine if there might be more to her than just what has been programmed. She celebrates her artifice as a supreme achievement in overcoming the constraints of biological evolution while also seeking to find evidence that she is possessed of that most mysterious spark: the god-like ingression of being that enters and animates the human shell. Oshii’s narrative suggests that robots that achieve a sufficient level of complexity and self-awareness will, just like their human creators, seek to see themselves as somehow divinely animated. Perhaps it’s a method to defend the belief in human uniqueness but those writing the modern myths of cybernetics seem to imply that while humans aspire to the abilities of machines, machines aspire to the soulfulness of humans.

Chalk it up to curiosity, the power of design fictions, and an innate need to realize our visions, but if we can see it with enough resolution in our mind’s eye, we’ll try to bring it to life. The Ghost in the Shell & the Ghost in the Machine both intuit the ongoing merger between humanity & technology, and the hopes & fears that attend this arranged and seemingly-unavoidable alchemical wedding. As animals we are driven to adapt. As humans, we are compelled to create.

“Although some people might have made mistakes. They may have arrived at an appearance that bears no relationship to them. They may have picked an ideal appearance based on some childish whim or momentary impulse. Some may have gotten half-way there, and then changed their minds…”

Humans are brilliant & visionary but also impetuous, easily distracted, fascinated by shiny things, and typically ill-equipped to divine the downstream consequences of
our actions. We extrude technologies at a pace that far outruns our ability to understand their impacts on the world, much less how they change who we are. As we reach towards AI, the cyborg, the singularity, and beyond, our cybernetic fantasies may necessarily pass through the dark night of the soul on the way to denouement. What is birthed from the alchemical marriage often necessitates the destruction of the wedding party.

Are we working up some Faustian bargain promising the heights of technological superiority only for the meager sacrifice of our Souls? Or is this fear a reflection of our Cartesian inability to see ourselves as an evolving process, holding onto whatever continuity we can but always inevitably changing with the world in which we are embedded? As we offload more and more of our selves to our digital tools, we change what it means to be human. As we evolve & integrate more machine functionality we modify our relationship to the cybernetic process and re-frame our self-identity to accommodate our new capacities.

Like the replicants in Blade Runner and the animated cyborgs of Ghost in the Shell we will very likely continue to aspire to be more human than human, no matter how hard it may be to defend our ideals of what this may mean to the very spark of humanity. What form of cyborg we shall become, what degree of humanity we retain in the transaction, what unforeseen repercussions may be set in motion... The answers are as slippery as the continuum of the self and the ever-changing world in which we live. Confrontation with the existential Other - the global mind mediated through ubiquitous bio-machinery - and the resulting annihilation of the Self that will necessarily attend such knowledge, may very well yield a vastly different type of humanity than what we expect.