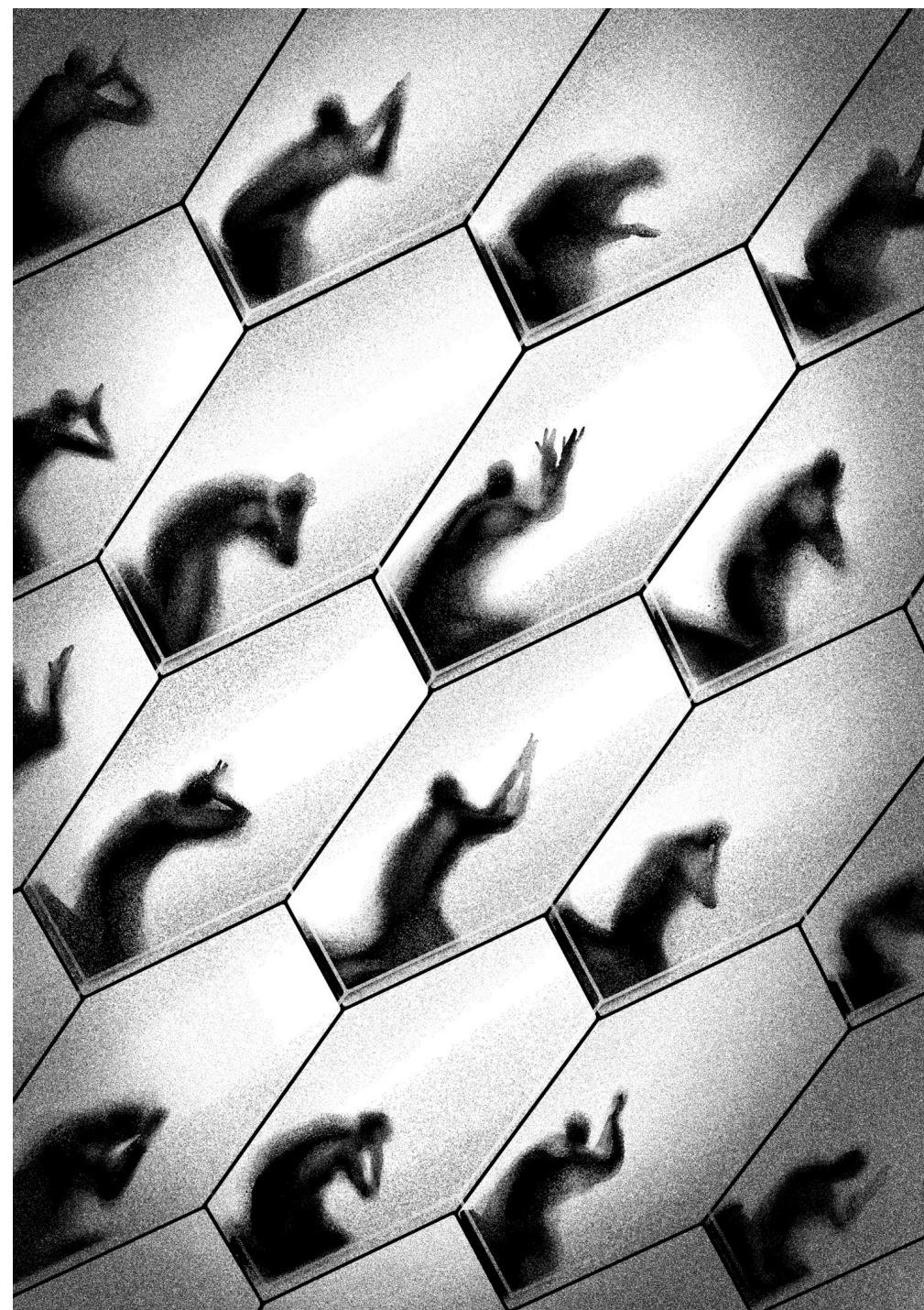


A Tale of Two Catastrophes, or Beyond Regulation and Moderation: A Forster-Inspired Framework for Machine Evolution



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Talk Outline

- E. M. Forster's Story The Machine Stops: A Sharp Critique of Modern Technology
- Narrative Elements and a Prefiguration of Our World
- An Adventure Story, Magic, and a Cataclysm
- The Propaganda-Industrial Complex, Revisited
- A Forster-Inspired Framework for Machine Evolution
- Conclusion

Beginning with The Machine Stops

- The Machine Stops is an extraordinary story by Edward Morgan Forster (1879–1970), one of the great stylists of 20th century English prose.
- Acknowledgment: I only know of this work because it was included in “Computers, Ethics and Social Values” by Deborah Johnson and Helen Nissenbaum, the text I inherited when I began teaching Computer Ethics at Villanova
- Claimer & Disclaimer



The Machine Stops as a Meditation

- Forster's deeply humanist 'meditation' is a plea and warning to his contemporaries against uncritical dependence on new technologies
 - Overdependence on affordances of technology
 - Unanticipated fragility of large complex systems
 - Depth and robustness of human intelligence...
- These themes are illustrated through the beautifully worked out physical, temperamental, intellectual and spiritual contrast between the two characters who dominate the story.

The Machine Stops as Prefiguration

- Forster's meditation evolves as an adventure story taking place in an imagined future world
 - Life on earth's surface abandoned ...
 - Civilization re-established under earth's surface (a rather strange civilization of isolated atoms living in cells resembling enormous underground beehives)
 - Individual needs supplied by a universal complex system—The Machine—that furnishes everything from food, ventilation, sanitation, illumination, information and entertainment (ad libitum) and (!!) universal free, home-delivered health care.

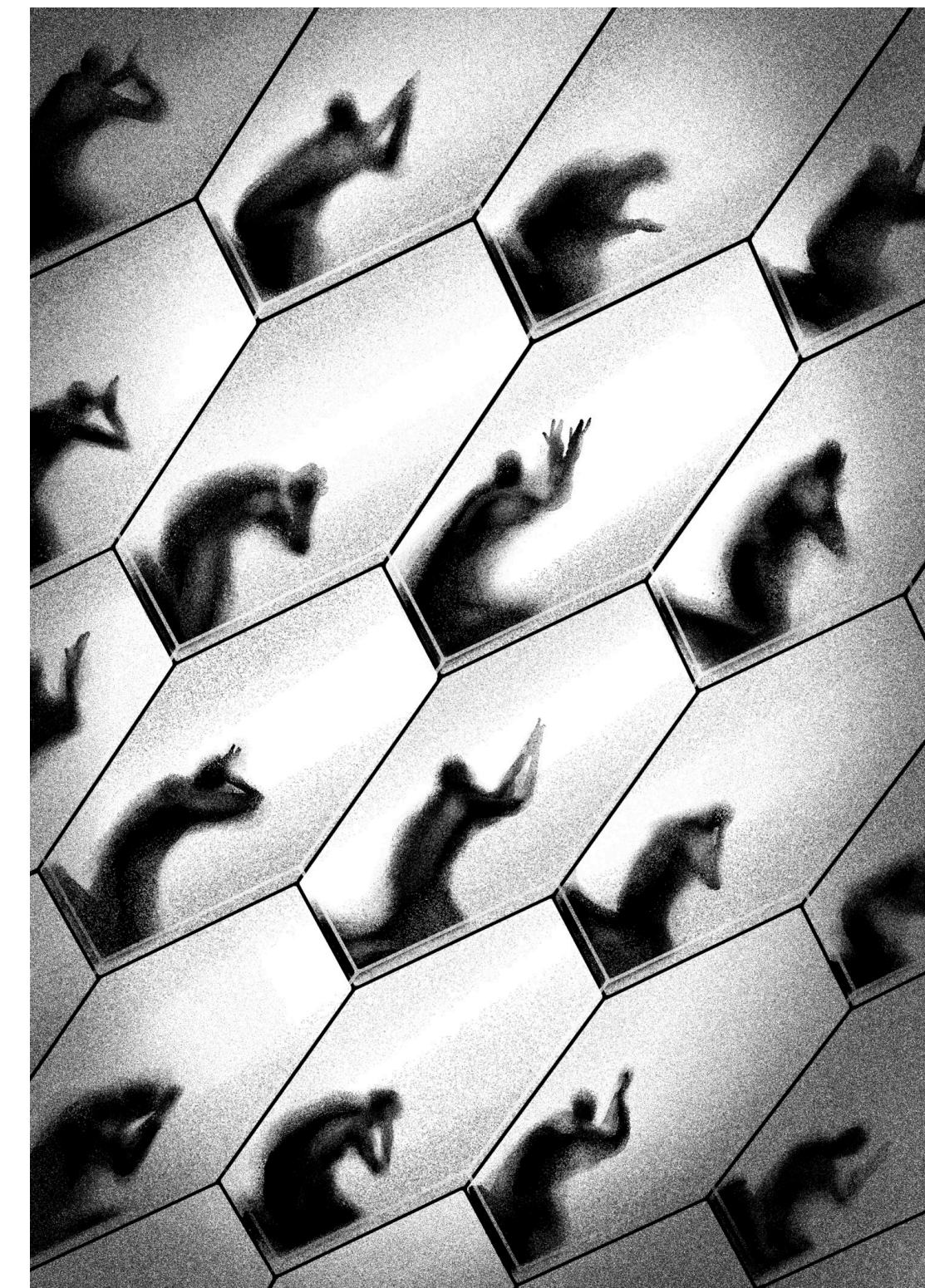


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The Machine Stops

Narrative Elements

- Except for cameo appearances of anonymous exemplars, there are just two characters – Vashti (mother) and Kuno (her son)
- They live half a world apart in identical cells under Oceania (Vashti) and UK (Kuno)
- They are able to converse at any time* through a Machine affordance—the iconic Blue Plate
- In person visits are possible, though difficult and uncomfortable, by means of scheduled airship flights.



image credit: Walt Cahill

The Machine Stops as Prefiguration

- o Cultural and intellectual life is maintained by a sort of Substack environment in which individuals may present or view/listen to short lectures by scholars, specialists or enthusiasts of a particular topic



image credit: Kelly Airo

The Machine Stops

Narrative Elements

- Contrast in temperament between Vashti and Kuno is a major narrative device to develop the principal themes of the 'meditation.'
- Vashti is content to sit acquiescently in her room and live the life that The Machine affords
- Kuno is active and inquisitive, an instinctive rebel. He wants to experience the world outside his cell
- Vashti has an active, virtual social existence. She is a receiver of 'ideas' through The Machine/Substack
- Kuno prefers direct experience, learning through experimentation supplemented by imagination

The Machine Stops

Narrative Elements

- Because she is so connected into her culture—‘spends so much time on the screen’ – Vashti is predisposed to spells of irritation—‘a growing quality in that accelerated age.’
- Vashti lives at the nervous pace of her busy public life
- The pressure of near constant social availability is almost physically tangible
- Kuno’s life proceeds at the rhythm of his own steady heartbeat.

A Quest

A Gripping Tale of Adventure

- It's Kuno's quest to visit the surface of the earth without a respirator or Egression Permit
- As Vashti says, "This is unmechanical, contrary to the spirit of The Machine" and will likely result in banishment and death for Kuno.
- To achieve his goal, Kuno has to regain a sense of human wholeness and physical strength. He relearns the idea of space as measured in relation to human capacity
- 'Near' = I can get there quickly on my own feet



image credit: Drew Hill

A Quest

A Gripping Tale of Adventure

- To effectuate his escape, Kuno has to reverse engineer the process used by his earth-dwelling antecedents to access and construct their new underground environment
- Logic, imagination, and an independent mind are marshalled to achieve this impressive feat
- But at the last step, a great leap – physical and spiritual – of faith is also required

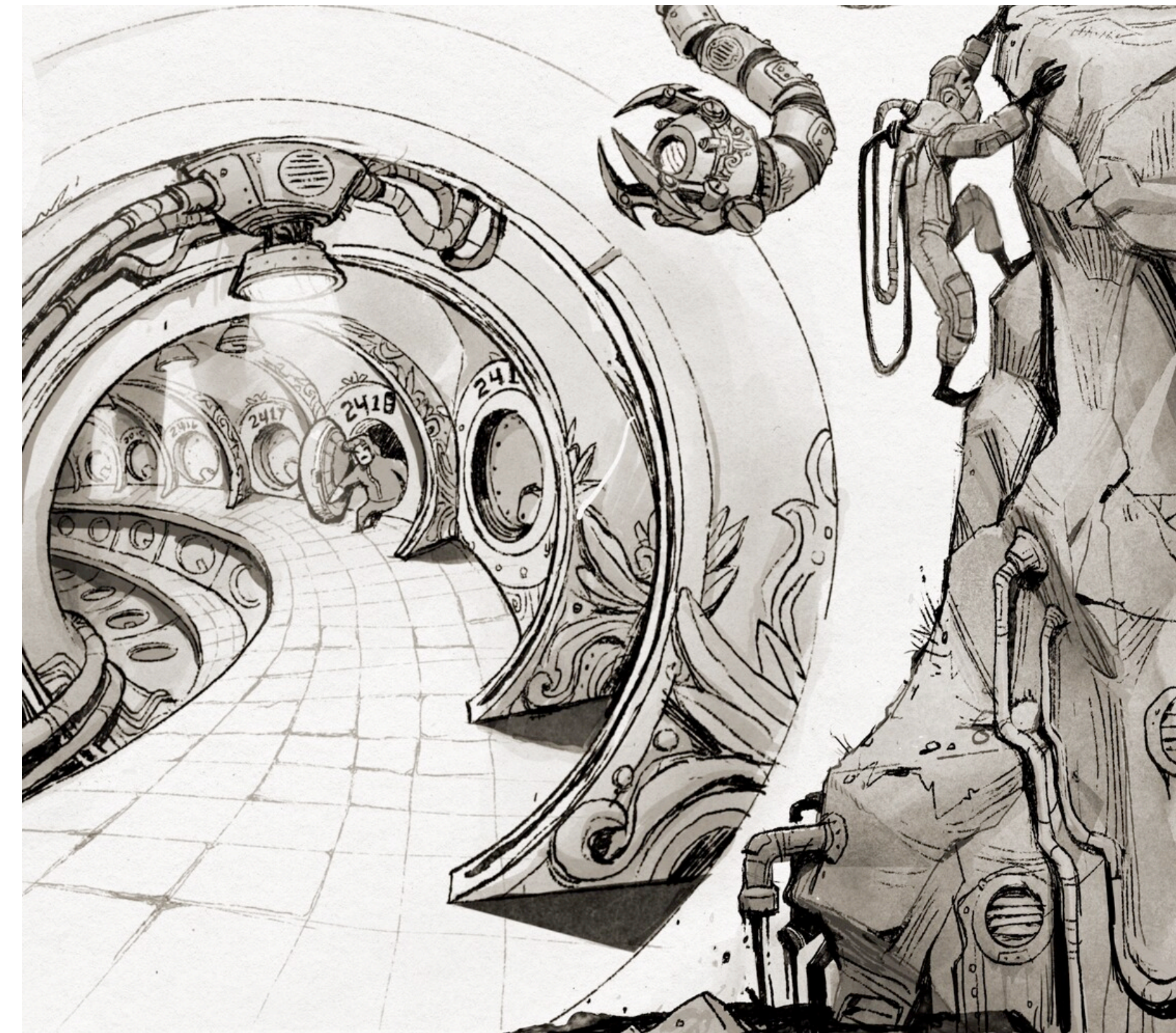


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Magic and Cataclysm

- The magic is that contemporary readers easily assimilate the givens to modern technology
 - The Machine \approx Social Media Platform or AI system
 - The Blue Plate \approx Video Calling (FaceTime, Signal, WhatsApp, Zoom, etc.)
- Astonishing in every respect that The Machine Stops was published in 1909—116 years ago
- The final cataclysm prefigures future thinkers—L. Mumford, N. Wiener, J. Weizenbaum, C. Perrow (“Normal Accidents”)
- Read the story. It is riveting.

The Propaganda-Industrial Complex, Revisited

SOCIAL MEDIA AND THE RISE OF THE PROPAGANDA-INDUSTRIAL COMPLEX

Leah Rosenbloom, William Fleischman

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- Propaganda-industrial complex (propIC): symbiotic relationship between billionaire social media owners and authoritarians
- From neoliberal inclusivity and public accountability to unmasked support for fascism, White supremacy, shock-doctrine capitalism, cisheteropatriarchy
- Rolling back protects for vulnerable users; platforming genocidal ideation

The Propaganda-Industrial Complex, Revisited

Content Moderation

- Profit model changed from traditional notions to the attention economy
- Monetizing clicks while relying on worker-moderator exploitation to protect profit and platform scale
- Moderators & community guidelines are routinely overruled for privileged speakers (holding outsized political or economic influence)
- On a bigger scale, these folks feel exempt from rules and laws



image credit: Corey Brickley

The Propaganda-Industrial Complex, Revisited

Truth to Power

“[B]elieve in truth: To abandon facts is to abandon freedom. If nothing is true, then no one can criticize power, because there is no basis upon which to do so. If nothing is true, then all is spectacle. The biggest wallet pays for the most blinding lights.” (Snyder 2017)

- What are facts? What is truth?
- Forster: lived first-hand testimonies of human beings & our relationships
- Lorde (1984): “it is necessary to teach by living and speak those truths which we believe and know beyond understanding”
- Inherently in conflict with machine-centered world, difficult to access

The Propaganda-Industrial Complex, Revisited

Truth to Power

- Impact of ProplC, administrative violence, fascist White supremacist capitalist cisheteropatriarchy on the truths of people:
“‘subjection’...indicates that power relations impact how we know ourselves as subjects through these systems of meaning and control—the ways we understand our own bodies, the things we believe about ourselves and our relationship with other people and with institutions, and the ways we imagine change and transformation.” (Spade 2011)
- Subjection goes beyond individual binaries and hones in on the role of systems in creating the fabric of our existence

The Propaganda-Industrial Complex, Revisited

Truth to Power

“Truth is that which hurries on the break-up of the colonialist regime...the good is quite simply that which is evil for ‘them.’” (Fanon 1963)

- Techno-colonialism: colonizers are not machines, but those who build, wield, control, and sustain technological systems that uphold colonialist regimes—people and complex mesh of language, law, social norms, etc.
- Explicitly political & beyond individual human experience toward labor, organizing, connection, and community-building of marginalized people working to dismantle oppressive systems

The Propaganda-Industrial Complex, Revisited

From Moderation to Abolition

“[Fanon’s] evident rhetoric of oppositionality, of the subaltern ‘good’ that necessarily materializes ‘evil’ (or criminal) in the eyes of domination, offers a stunning departure from the language of...moderation” (Rodríguez 2020)

- Abolition: recognizing and dismantling systems which are designed to dominate and subjugate, creating systems which sustain lives & livelihoods
- Necessary “evil” (with respect to those systems): turning away from the legal-administrative frameworks which uphold them

A Forster-Inspired Framework for Machine Evolution

What is the Operational Context?

- Necessary to maintain critical perspectives about integrating machines into human contexts
- Reinforcing systems such as fascist White supremacist capitalist cisheteropatriarchy
- Creating deadly “techno-complexes” such as techno-colonialism, techno-imperialism, techno-saviorism, techno-feudalism, etc.
- Taking individual and collective perspectives into account

A Forster-Inspired Framework for Machine Evolution

How does it affect people's actual lived experiences?

- Ground critique in the impact of technology on human wellbeing
- Sourced from the first-hand testimonies of affected people
 - not coerced
 - not exploited for perpetuating institutions or careers
- Politics of refusal (hooks 1990): we refuse to become “a generation that has got beyond facts” (Forster 1909)

A Forster-Inspired Framework for Machine Evolution

What is it made of?

- Commitment to deconstruction: understanding composite parts of machine as a requirement of understanding it as a whole
- Not only technical understanding but material development
 - stripping resources and exploiting labor, especially in the Global South
 - driving to climate change
- Barriers to collective understanding (for example)
 - theoretical: e.g. need for explainable AI
 - financial: corporations intentionally set barriers to protect IP and capital
 - access: tech education is a privilege

A Forster-Inspired Framework for Machine Evolution

What are we taking on faith?

- Forster highlights danger of making technology an organized religion
- Belief that machines are a higher omnipotent power
 - logical end-point of technological determinism: the idea that technological progress is inevitable and shapes human lives
 - widespread in common era, especially with respect to AI
 - e.g. ChatGPT as divine spiritual intervention; “AI-induced psychosis”



image credit: Quill Sang

A Forster-Inspired Framework for Machine Evolution

Scale and Efficiency: Why? For whom? To what end?

- Consider the actual concrete purposes of scale and efficiency, weigh carefully against the consequences of continued development

“The machine develops—but not on our lines.

The Machine proceeds—but not to our goal.” (Forster 1909)

- Degrowth movement: questions life-threatening growth and production which developers find “convenient to give the name of progress” (Forster 1909)
- More comfort, less friction for some comes at the expense of others’ labor (ex. gig economies, content moderation)
- Focus on the “overserving” that creates “underserving” (Benjamin 2019)

A Forster-Inspired Framework for Machine Evolution

How can we move slow and sustain things?

- At least for the moment, we are organic beings
- Discourage technological advancement for its own sake (tech that proliferates, goes faster, consumes more simply because we can)
- Avoid uncritically reproducing ways of technological knowing
- Ground CS learning in techno-critical analyses and imaginative literary meditations, dialogue, reflection



image credit: Alamy

A Forster-Inspired Framework for Machine Evolution

What do life-sustaining technologies look like?

- Love, imagine, meditate on what life-sustaining technologies look like
- Jones & Melo (2021): re-imagining an engineering school as a “thriving community centre” that
 - materially contributes to local communities
 - offers courses like “Computing and Sustainability”
 - respects expertise of community elders
 - imagines classrooms as a transformative “community dialogue centre”



image credit: Unity Gardens



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Conclusion

- Forster's catastrophe: not the maliciousness or agency of The Machine, but human beings' surrender of agency and the primacy of humanity
- How will "The Machine" of modern oppressive systems stop?
 - fiery crash bringing chaos and extinction
 - feeble unattended whisper; its hold over us gone

"As we arm ourselves with ourselves and each other, we can stand toe to toe inside that rigorous loving and begin to speak the impossible—or what has always seemed like the impossible—to one another. The first step toward genuine change. Eventually, if we speak the truth to each other, it will become unavoidable to ourselves." (Lorde 1984)

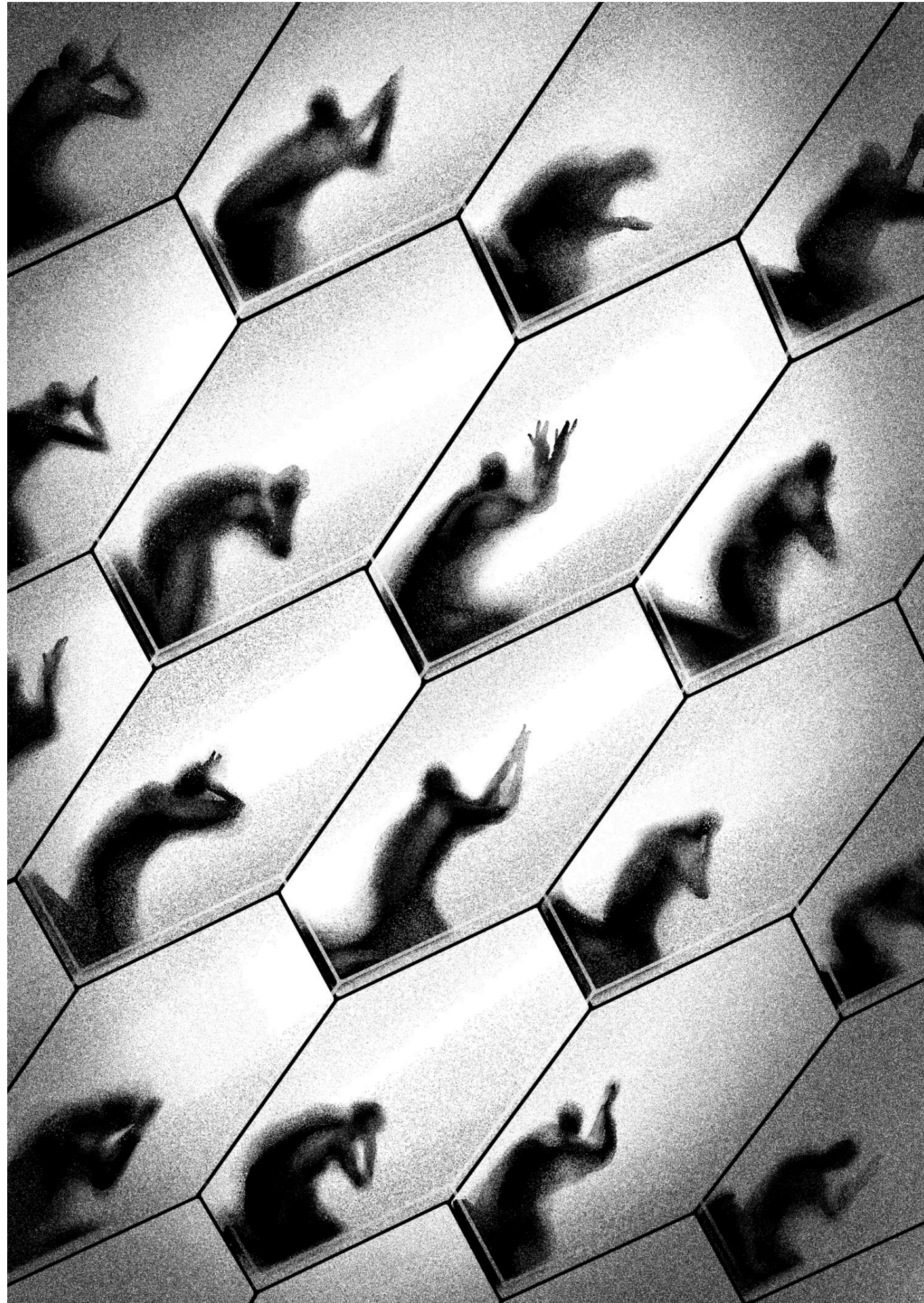


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Thank you for
listening!

★ ★ ★ Questions Welcome ★ ★ ★

