

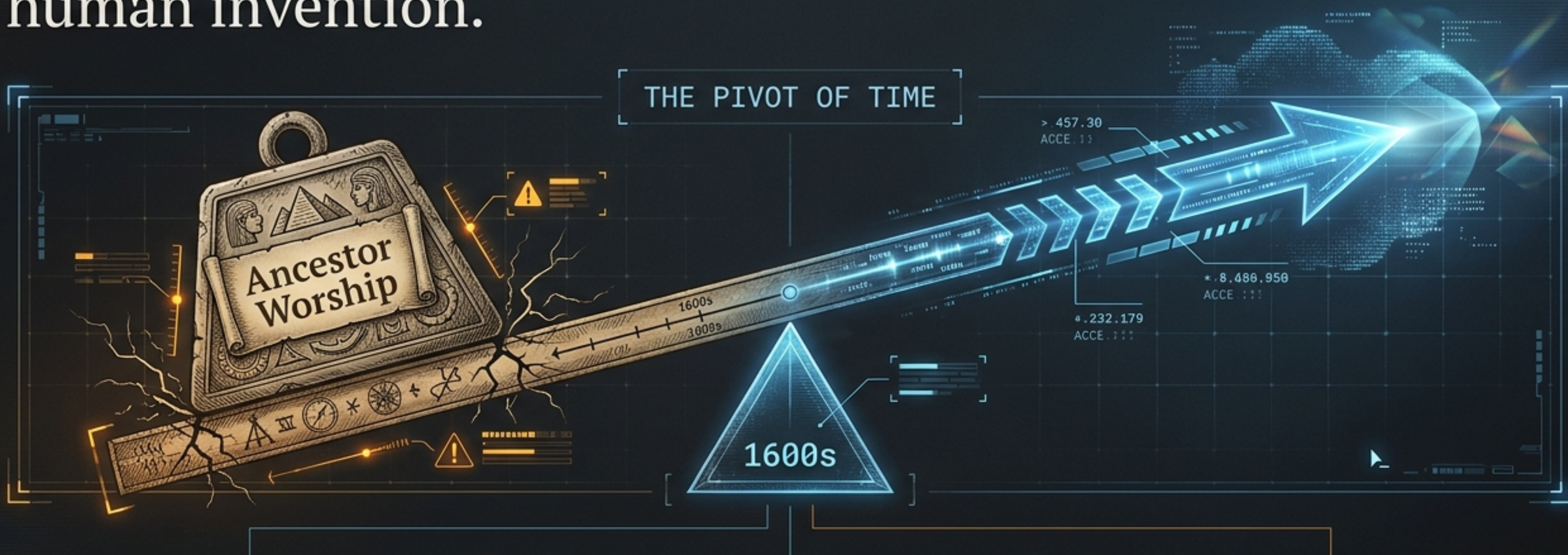


# Are We There Yet?

The History, Metrics, and Illusions of Progress.

The human experience is defined by anticipation. From the Scientific Revolution to the spinning wheel on a frozen screen, we rely on metrics, interfaces, and illusions to tolerate the void of waiting and believe the future is actually arriving.

# Progress is a surprisingly recent human invention.



## THE CYCLICAL PAST

Before the 17th century, history was viewed cyclically. Wisdom was exclusively inherited from the ancients. To learn, one looked backward.

## THE RADICAL PIVOT

Between Columbus and Newton, the Scientific Revolution birthed a radical new idea: the future can be better than the past.

## COLLAPSING CERTAINTIES

Discoveries like Tycho Brahe's supernova proved Aristotle's fixed stars wrong, destroying classical certainties and shifting focus forward.

# Knowledge transitioned from inherited wisdom to cumulative discovery.



Sishu Jizhu (Ancient Commentary)

Wisdom was static. If manuscripts were destroyed, human knowledge decayed.

## The Optimist (1780)

“The rapid progress true Science now makes, occasions my regretting sometimes that I was born so soon.”  
– Benjamin Franklin



In nullius verba (On no one's word)




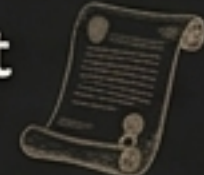







The printing press prevented data loss, making knowledge an infinitely-lived, cumulative entity.

## The Skeptic

Thomas Malthus and the Jesuit order feared that unchecked innovation would bring uncontrollable costs.

# We built global dashboards to quantify our collective arrival.

## The Dashboards of Humanity

	Metric	What It Measures	What It Ignores / Philosophy
Economic	GDP / GNI 	Total economic output.	Ignores wealth distribution & environmental degradation. 
Economic	Labor Productivity	Output per worker hour. 	Philosophy: Efficiency equals progress.
Human & Social	Human Development Index (HDI) 	Life expectancy, education, income. 	Philosophy: Progress requires baseline human capability. 
Human & Social	Multidimensional Poverty Index 	Lived human experience. 	Ignores pure economic scaling.
Inequality & Quirky	Gini / Passport / Big Mac Index 	Wealth distribution, mobility freedom, purchasing power. 	Provides niche diagnostics on global equity. 



**Diagnostic Check:** How do we decide the end goal of society based on which metric we choose to maximize?

# Our impatience scales down to the micro-level of daily life.



The Architecture  
of Anticipation



Societal progress takes centuries.

Digital progress takes seconds.

- **The 1985 Void:** Before 1985, users had no idea if a machine was installing a program, saving a file, or if it had completely crashed.
- Without a metric to measure the immediate future, users were left in an intolerable state of anxiety.

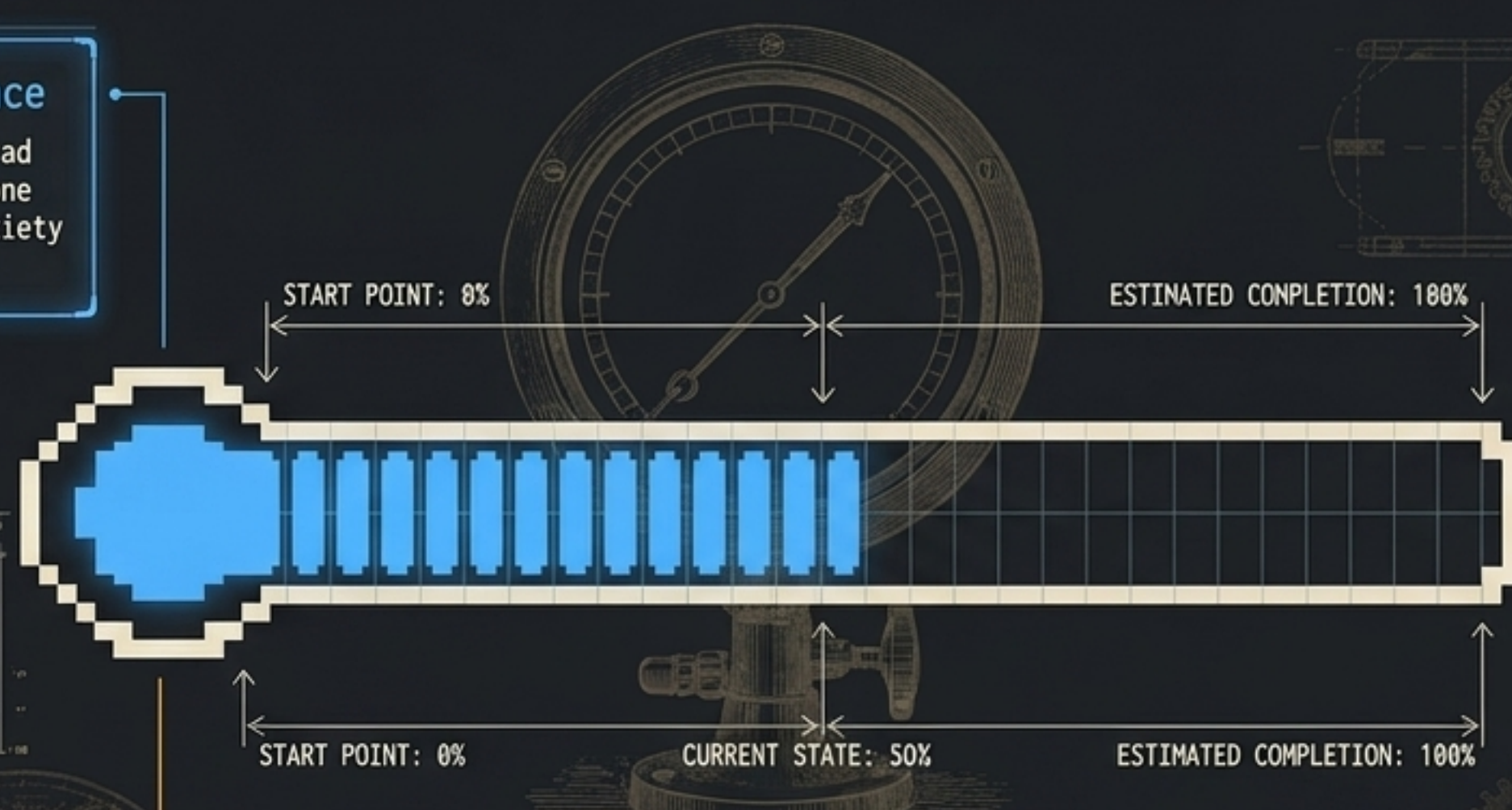
# Humans prefer a predictable lie over the anxiety of the unknown.

## The Invention of Reassurance

In 1985, computer science student Brad A. Myers built the first "percent-done progress indicator" to solve the anxiety of the terminal void.

## The Study

Myers tested 48 students running database searches, comparing the experience with and without the progress bar.



## ⚠ The Psychological Insight

86% of users preferred the bar, even if it was mathematically inaccurate.

Humans do not require precise truth from their interfaces; they require an incorrect sense of momentum to stave off the anxiety of idling.

# The architecture of digital waiting relies on visual pacifiers.



Indeterminate Bar

Inches along perpetually to prevent user abandonment, even when stuck.



Throbber

The spinning wheel. Proves the system is alive, but cannot measure time.



Skeleton Screen

Loads the blank outline of incoming content, significantly lowering perceived load time.



Console Output

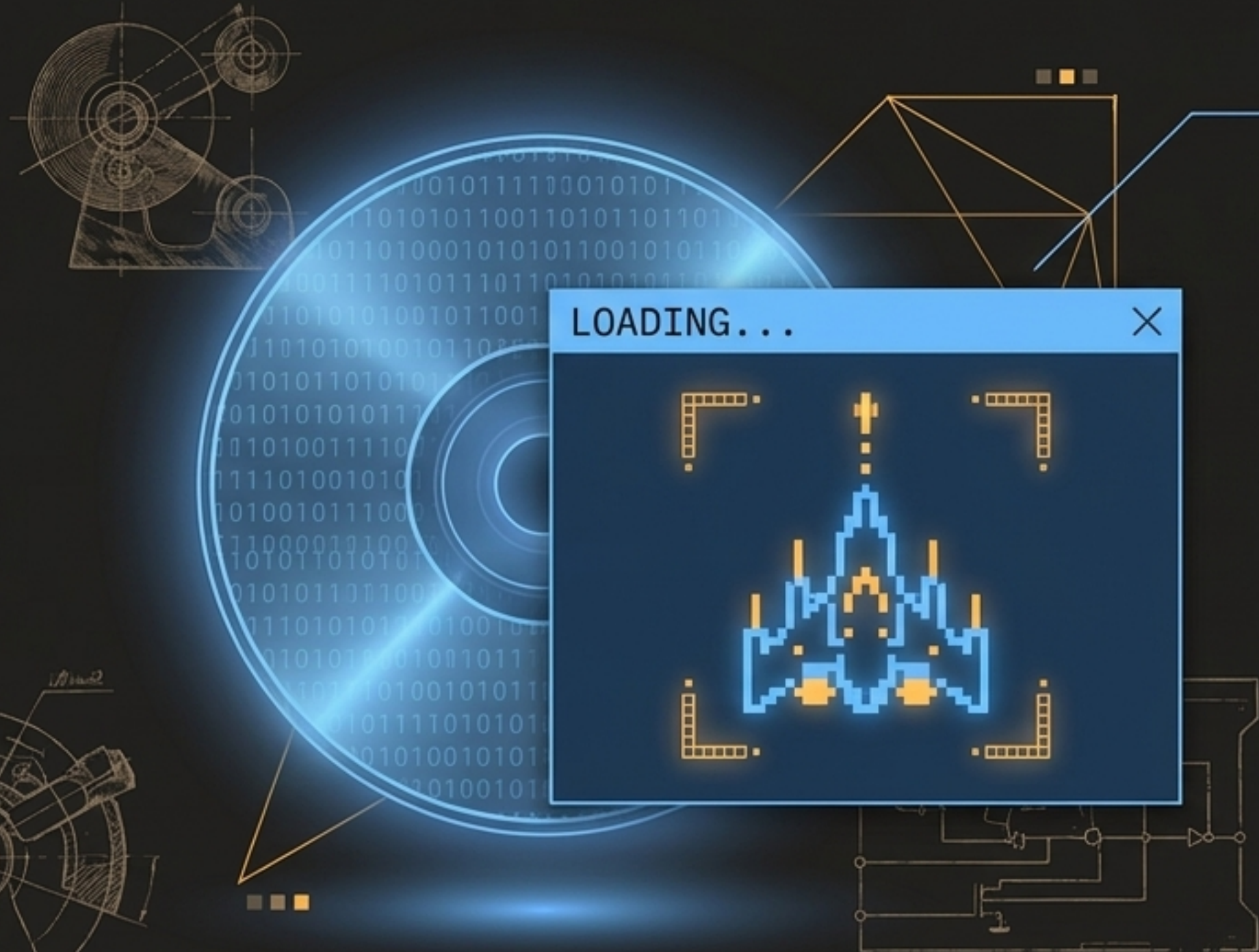
Displays raw mechanical effort, reassuring the user through visual complexity.



Splash / Security Screen

Functional distractions (e.g., Cloudflare verification) that buy time for backend processes.

# Developers began gamifying idle time to mask technological limitations



## The CD-ROM Bottleneck

In 1994, Namco developed the arcade racing game *Ridge Racer* for the PlayStation but was frustrated by the console's long optical load times.

## The Easter Egg

Developer Yozo Sakagami added a playable minigame of the arcade classic *Galaxian* to make the waiting time enjoyable.

## The Patent Freeze

Namco patented the "auxiliary loading minigame" (U.S. Patent 5,718,632). Because of this, loading-screen innovation across the industry was legally frozen until the patent expired in 2015.

## Modern Echoes

Google Chrome's offline Dinosaur game uses the exact same psychological mechanism: distracting from the wait by engaging the user elsewhere.

# Distraction easily crosses the line into exploitation.



## The Table Game Trap

Restaurants provide table-mounted tablets with premium games to pacify children while families wait for food.

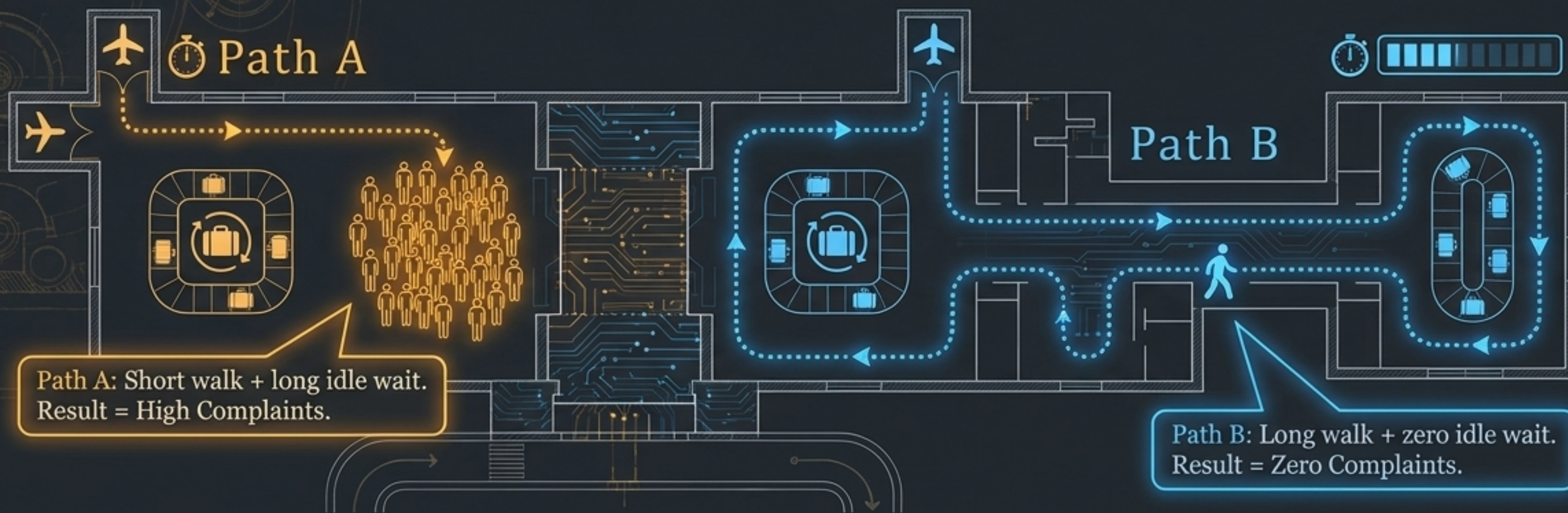
## The Consent Loophole

The tablets often allow children to incur a \$1.99 unlimited access fee by simply clicking a sequence of buttons, without explicit adult consent or age verification.

## The Legal Gap

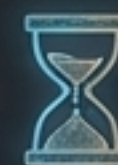
While California law protects parents from unauthorized minor purchases, states like Illinois currently have no such protections. When the wait is monetized, the distraction IS the product.

# Physical wait times are hacked by occupying human attention.



## The Houston Airport Paradox

Despite identical total wait times, executives eliminated complaints simply by parking planes further away. Systems are redesigned so users feel progress (walking) rather than idling. The psychological rule: Unoccupied time feels significantly longer than occupied time.



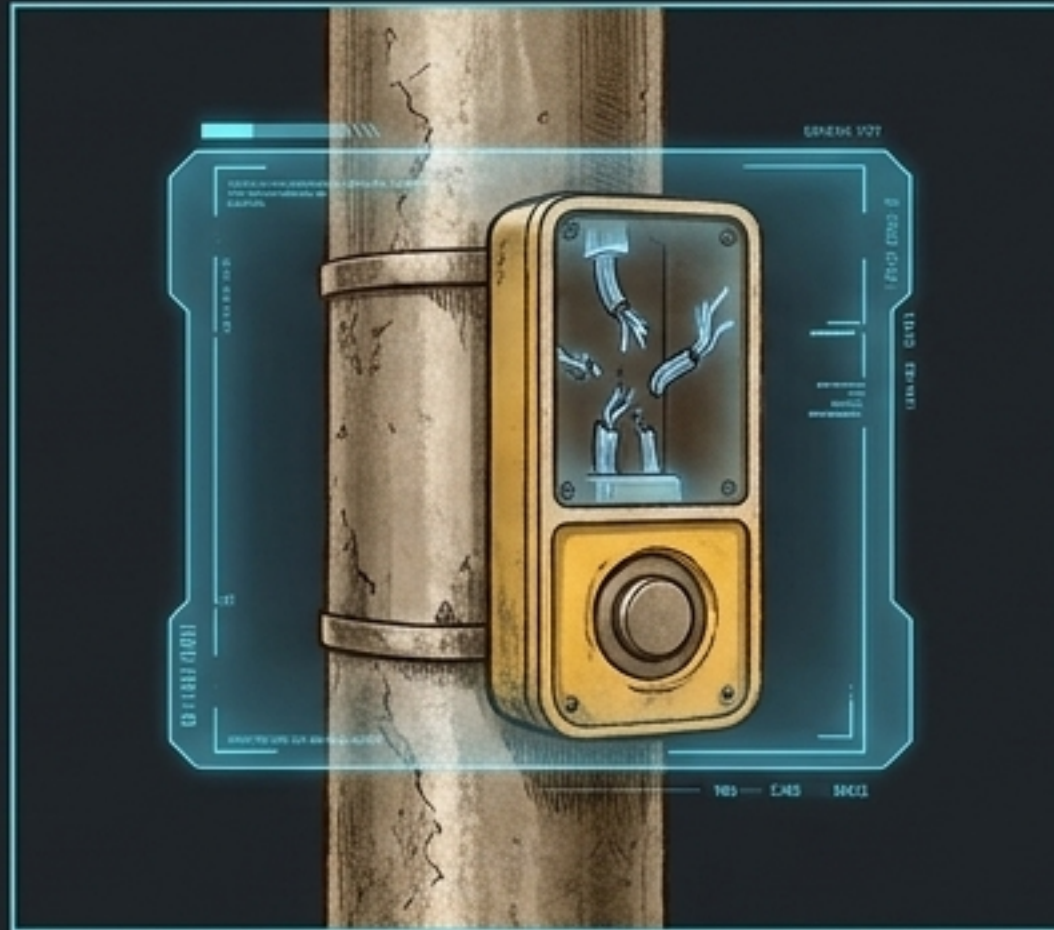
# The ultimate wait-management hack is the illusion of control.

Placebo Buttons: Interfaces designed solely to comfort the user, not to operate the machine.



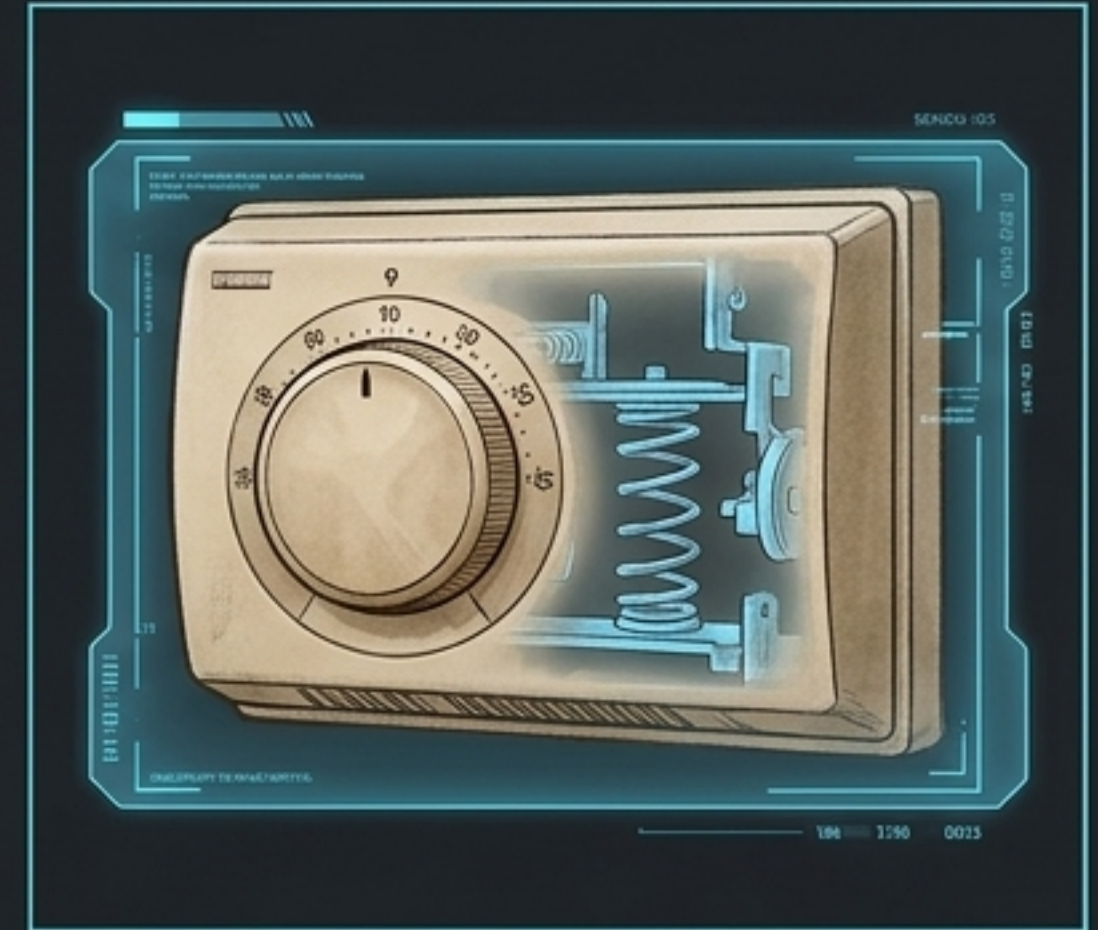
## Elevators

Since the 1990s, most Close Door buttons only function with emergency keys or long-presses. They are deactivated for the public.



## Crosswalks

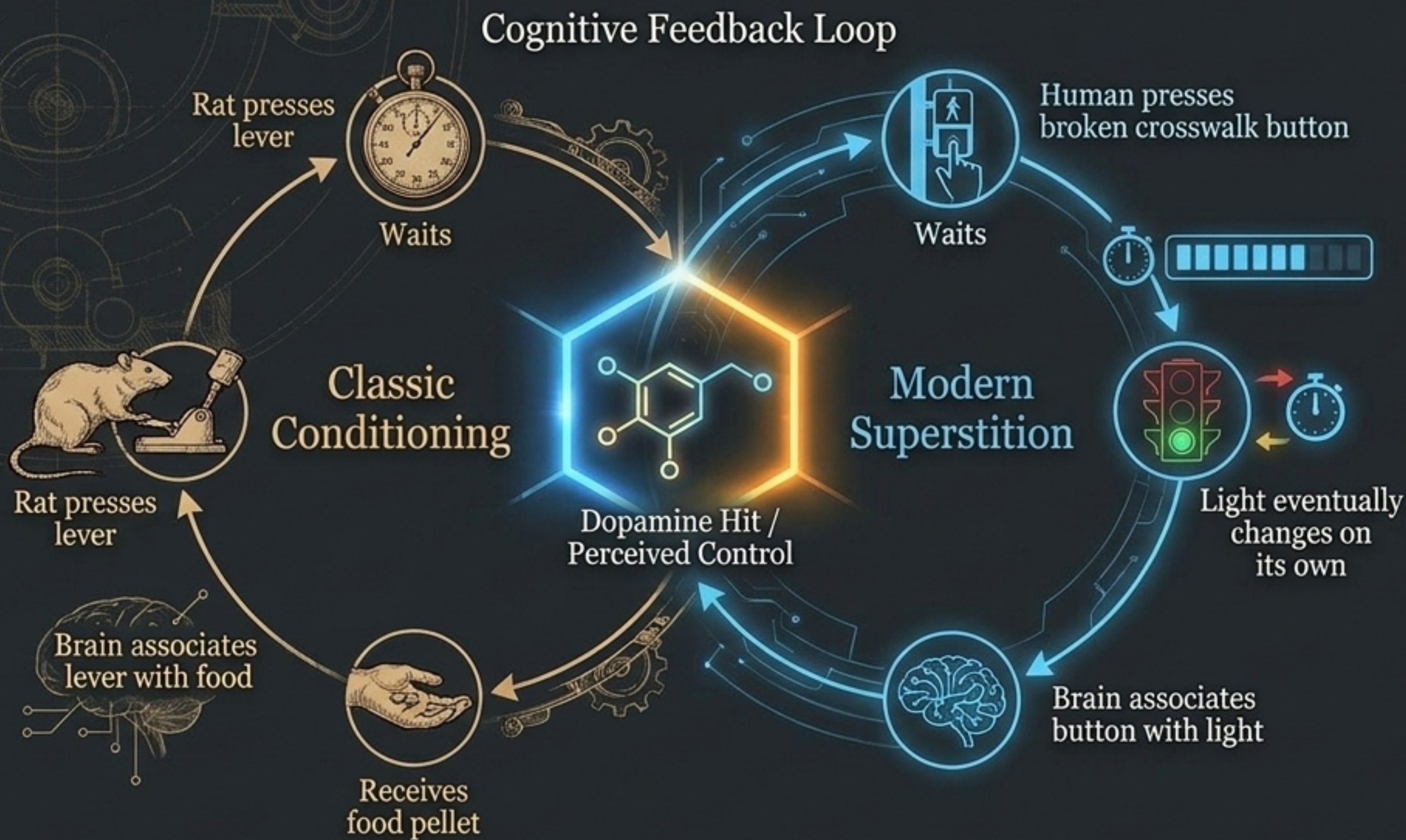
A 2004 NYT investigation found only 1 functioning pedestrian button across three major US cities. Computer algorithms control the grid.



## Thermostats

Up to 90% of office thermostats are dummy units. Some are even installed with fake pneumatic hissing noises to grant complaining employees a sense of control.

# The brain manufactures causality to cope with randomness.



Your whole life, you've pressed buttons and been rewarded.

The brain vehemently dislikes randomness and actively seeks to connect a cause to every effect.

When a placebo button is pressed and the desired outcome happens anyway, a spurt of dopamine reinforces the behavior.

It is our technological version of a rain dance.

# Interface of Time

Interface design forces us to weigh user comfort against manipulation.



Helpful Nudge

Placation

Manipulation

## Helpful Nudge

Examples: Myers' inaccurate Progress Bars

Goal: Reduce user anxiety and encourage completion

Ethical Status: Benign

## Placation

Examples: Placebo Buttons & Airport Detours

Goal: Manufacture an illusion of control

Ethical Status: Deceptive but emotionally comforting

## Manipulation

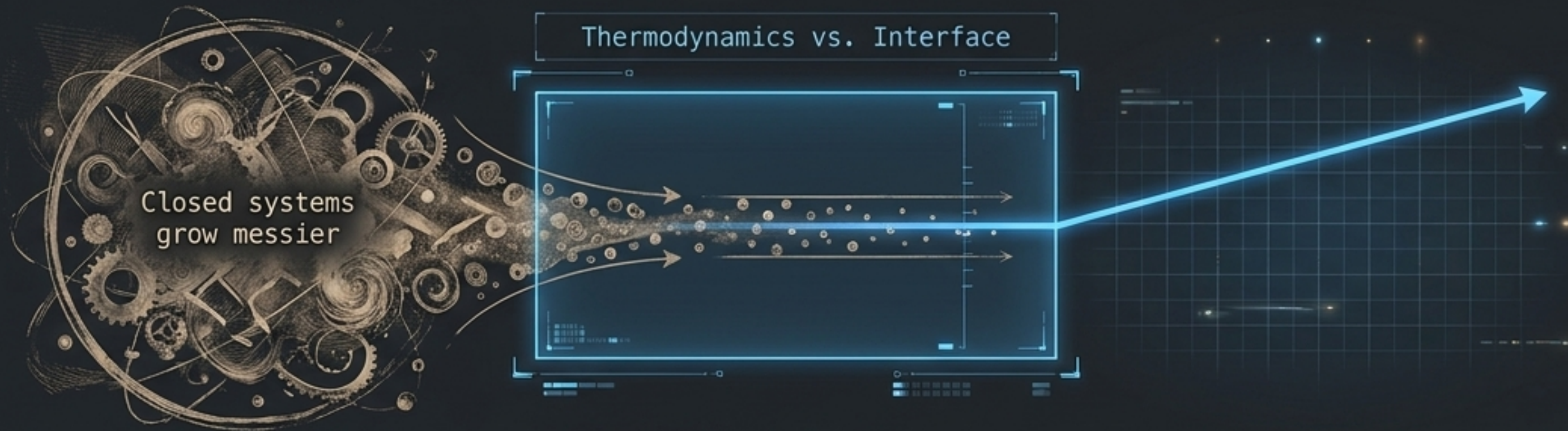
Examples: Unconsented Restaurant Table Games

Goal: Monetize the wait and exploit attention

Ethical Status: Exploitative

If placebo buttons make people feel better, is it acceptable to intentionally deceive them? Where is the exact line between optimizing a user experience and exploiting a psychological vulnerability?

# Our tools for tracking time are how we fight the thermodynamics of the universe.



The Second Law of Thermodynamics states that closed systems always grow more disordered over time. Left alone, the world decays.

“The arc of the moral universe is long, but it bends toward justice.” – Martin Luther King Jr.

Progress is never actually finished. Whether society is measuring civil rights with the HDI, or a user is watching a file save, the human need is identical: we cannot tolerate the void. Our metrics, UI bars, games, and placebo buttons are the psychological scaffolding we build to maintain our sanity while we do the work of moving forward.

The ultimate question remains exactly what it was a century ago.



*Surely the World is Growing Better* (Will Crawford, 1909)



*Surely the World is Growing Better* (2025)

We possess infinitely more cumulative knowledge, complex dashboards, and psychological hacks than the moderns of the 17th century could have ever dreamed of. But after all the metrics are tallied, all the placebo buttons are pressed, and all the loading screens finish...

...are we there yet?