

Attention as Natural Law

Protocol Symposium 2026

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calmtech.institute



Human attention has limits that behave like a law of Nature

Products should be built to fit those
limits the way they are built to fit
gravity or heat.

Human attention has limits that behave like a law of Nature

Human cognitive architecture has limits that
do not negotiate with product roadmaps.

Which buttons are easier to press while on the road?



We can
physically
multitask

We can
physically
multitask

***But we can't
mentally
multitask***

PERIPHERAL ATTENTION

Which buttons are easier to press while on the road?



Front Brain
Active



Back Brain
Pass through



240 Mechanoreceptors







Proprioception

The nervous system's ability to sense the position, location, orientation, and movement of your body parts **without looking.**



Proprioception

The nervous system's ability to sense the position, location, orientation, and movement of your body parts **without looking.**





Distracted driving is literally a *loss of touch*



**Intuitive to use at first
does not mean easy to
use over time.**

The iPhone was sold as
'intuitive,' but what it actually
created was a **texture famine**.

Muscle memory has nowhere to
anchor because the surface is
completely smooth.

**You must look at the screen to
do anything with the device.**

Neuro-ergonomics

How it *feels* to use something



PERIPHERAL ATTENTION



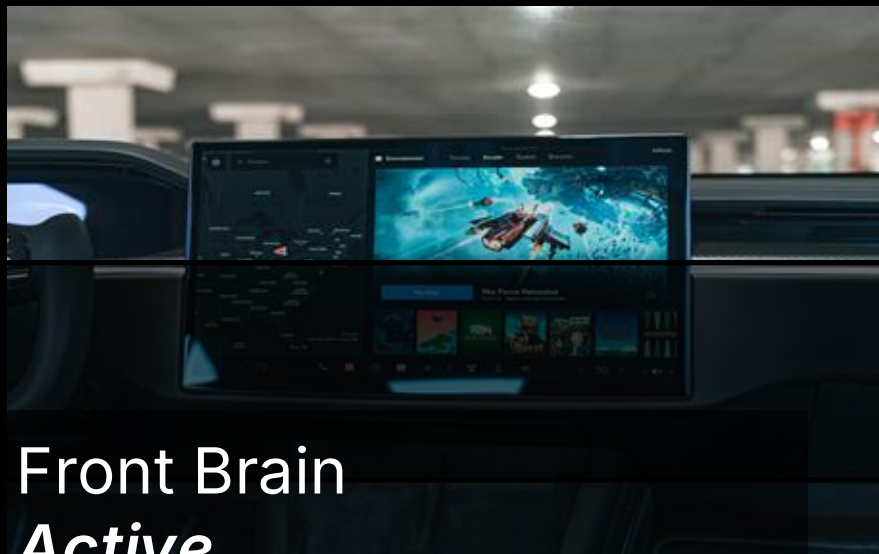
Perpetual visual scanning



Proprioception

PERIPHERAL ATTENTION

Different tools engage different kinds of attention



Front Brain
Active



Back Brain
Pass through



**Invisibility is
the wrong
goal**



Feedback is the right goal

What makes technology disappear is making it so responsive, and so well-matched to human capability that *you can stop attending to a visual interface* and focus on what you're trying to do.



Making the Invisible
Visible



A small orange light placed exactly where a driver's eyes are already directed when considering a lane change.

It activates when a vehicle enters the blind zone.



It always appears in the same place.

The system does not make a decision for you.

It **adds information to your environment** so you can make a **better decision**.

What is time?

Greek Concepts of Time

Chronos time



*Time spent on tasks;
quantitative experiences;*

Kairos Time



*Human time; **qualitative**
experiences*

Chronos time

Time spent on tasks;
quantitative experiences;



Kairos time

The right time;
qualitative experiences





We live in an era of
interruptive technology

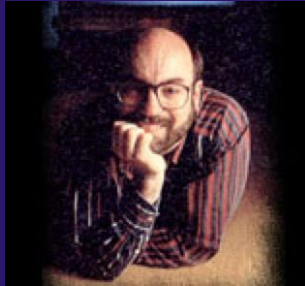
The background image shows a modern, minimalist interior space. The ceiling is a large, curved, white structure that is illuminated from within, creating a soft, purple glow. The walls are also white and curved, following the same architectural style. In the foreground, a group of people are sitting on a low, white, curved platform. They are dressed in casual clothing, and their silhouettes are visible against the bright, purple-lit background. The overall atmosphere is calm and futuristic.

We need a *Calm Technology*

Calm Technology's goal is
to minimize **Chronos** Time
and maximize **Kairos** time.

XEROX PARC: mid-90s

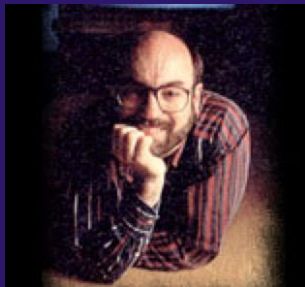
Mark Weiser



“What happens when technology is cheap enough to be everywhere?”

XEROX PARC: mid-90s

Mark Weiser



“Attention becomes scarce.”

Center and Periphery

Mark Weiser



In 1995, Mark Weiser proposed that technology should be designed around the natural structure of human attention: the **center**, which demands conscious focus, and the **periphery**, which informs without interrupting.



THE COMING AGE OF CALM TECHNOLOGY¹

Mark Weiser and John Seely Brown

Xerox PARC

October 5, 1996

INTRODUCTION

The important waves of technological change are those that fundamentally alter the place of technology in our lives. What matters is not technology itself, but its relationship to us.

**Our brains relax when they're in
spaces legible to us**



We need more information
in our environments
to *feel calm*



Technology should
not draw more
attention to itself
than its surrounding
environment

**Siena Cathedral: A medieval
church in Italy**





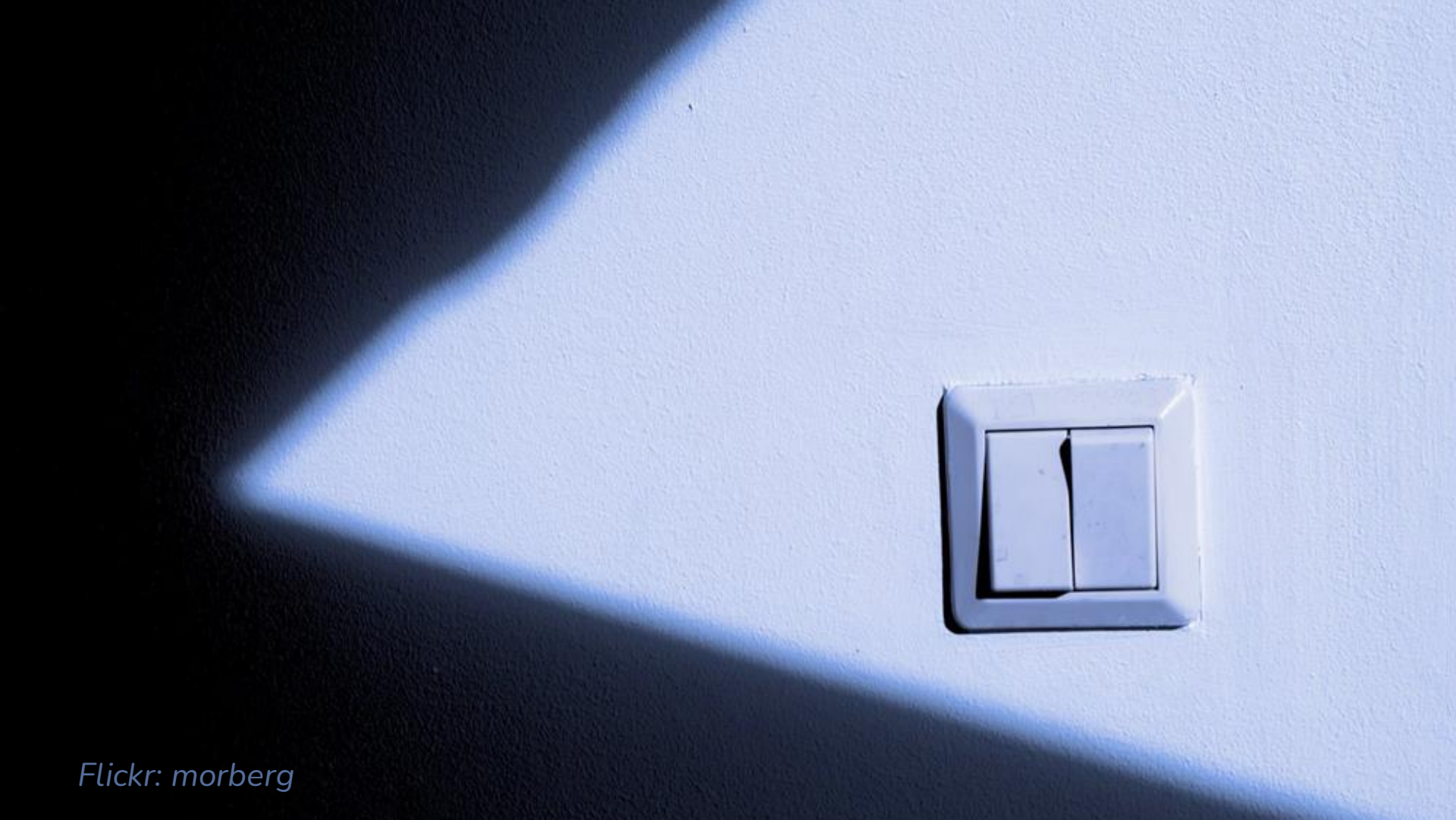
Technology should not draw more attention to itself than its surrounding environment

Blue LEDs make **technology draw more attention to itself** than human experience, especially at night



Principles of Calm Technology

I. Technology shouldn't require
all of our attention, just **some** of it,
and **only when necessary**



Pass-Through Technologies

Pass-Through Technologies

Is a car invisible when you drive it? How about a book when you read it?

A car becomes a part of us and extends our perception.

How a car is designed allows you specific affordances, and either works with or against our attention, is governance.



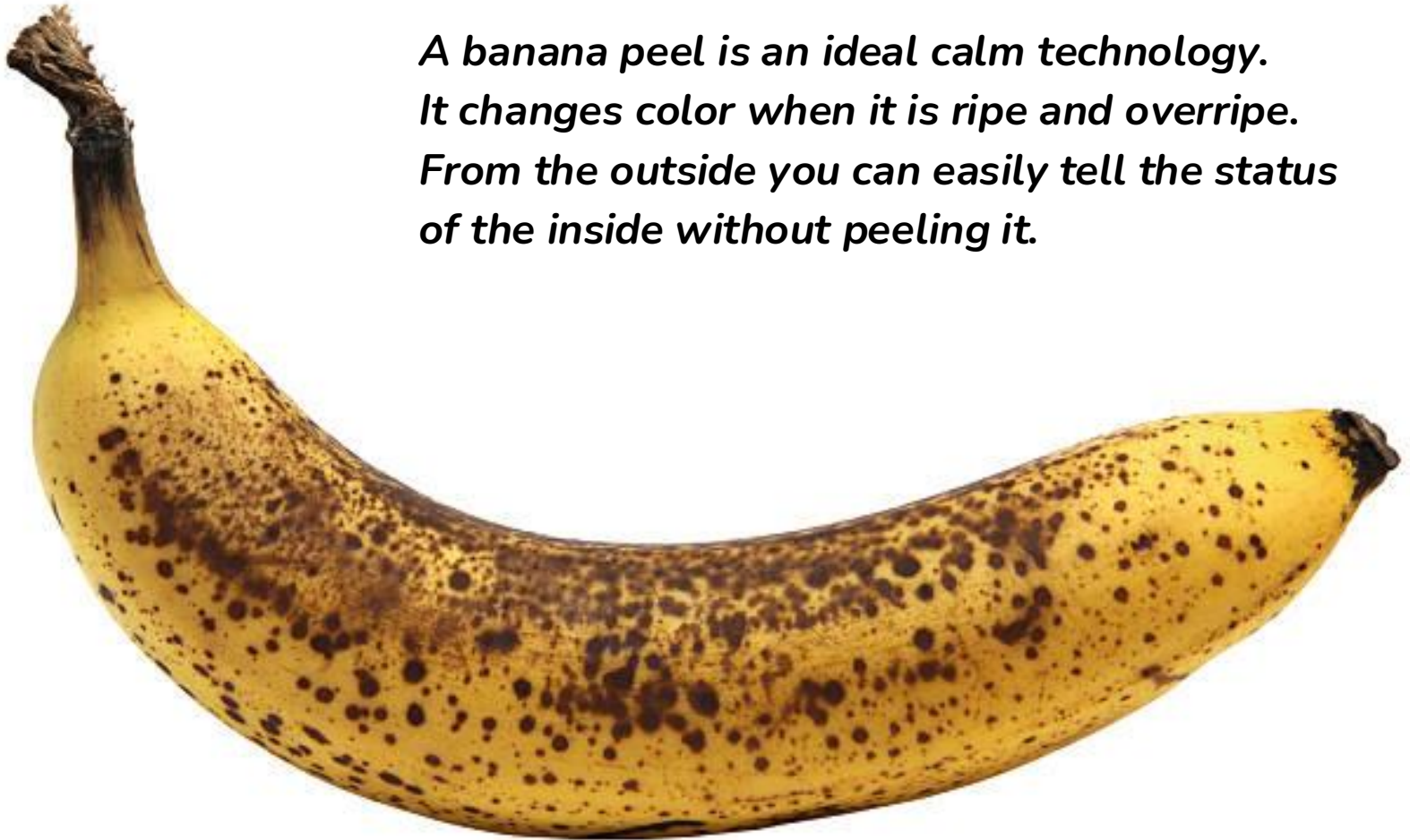
How to see the Unseen: Secrets hidden in plain sight

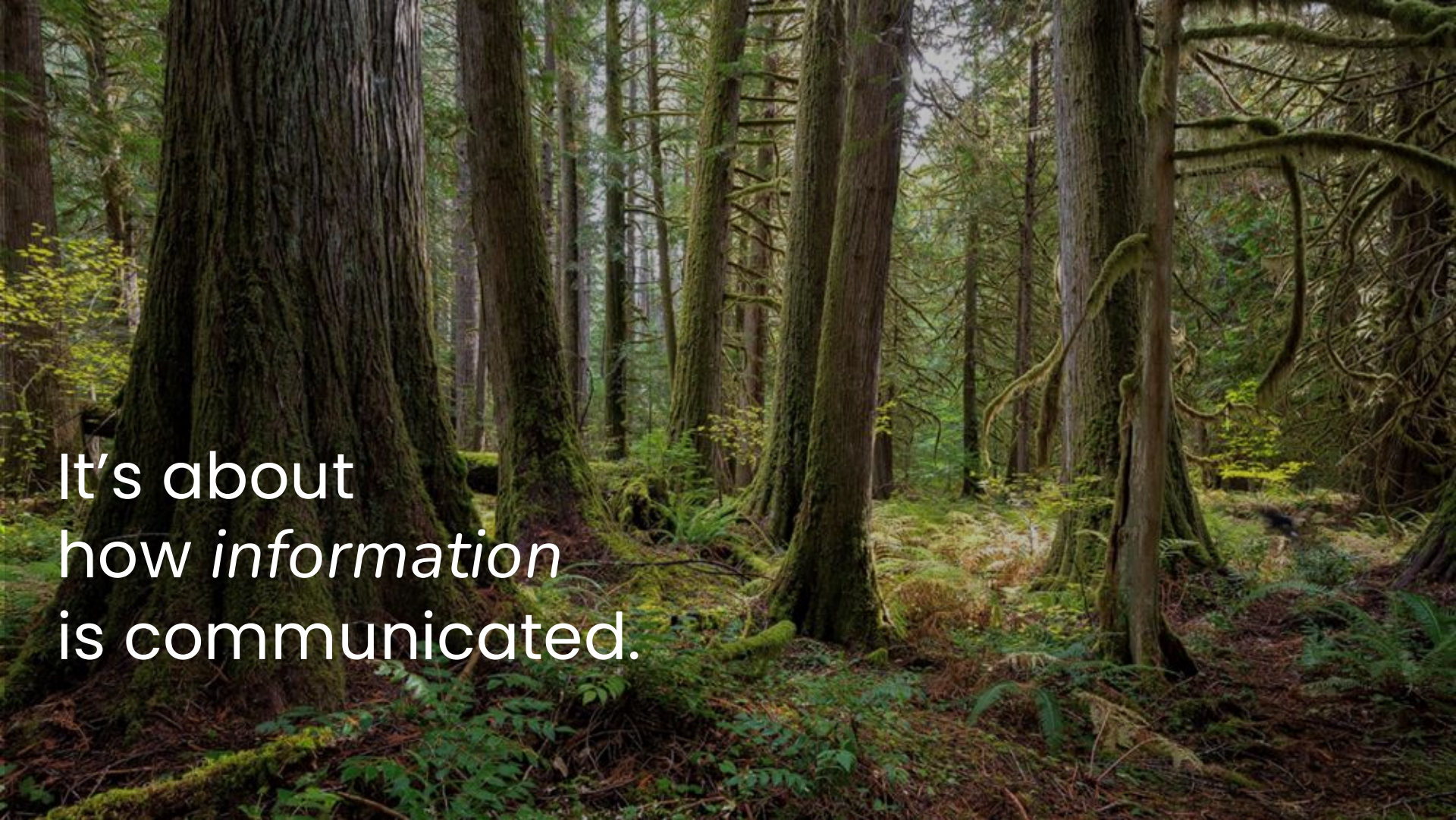
What designs in our world are
so well-known by daily use that
they are no longer noticed?



II. Technology should inform and *encalm*

*A banana peel is an ideal calm technology.
It changes color when it is ripe and overripe.
From the outside you can easily tell the status
of the inside without peeling it.*





It's about
how *information*
is communicated.



III. Technology should make use
of peripheral attention

How do you turn off this TV if you can't find the remote and there's no raised dot on the power button?



Start



Stop



PERIPHERAL ATTENTION

**A door code that's easy
to press at night**



IV. Technology should communicate,
but it doesn't need to speak

Seeing temperature





Weather Status Lighting

Hue Light bulb connected to a weather report

Aaron Parecki
@aaronpk 2014

VI.

**Technology should
work even when
it fails.**



VI.

**Technology should
work even when
it fails.**

*When an
escalator breaks,
it turns into stairs.*



Calm Tech Principles

I.
**Require the least
amount of attention**

II.
**Inform and create
calm**

III.
**Make use of the
periphery**

IV.
**Amplify the best of
technology and the
best of humanity**

V.
**Communicate
without speaking**

VI.
**Work even when it
fails**

VII.
**The minimum
needed to solve
the problem**

VIII.
**Respect social
norms**

Why do people keep
creating annoying
technologies?

The Future is Outdated

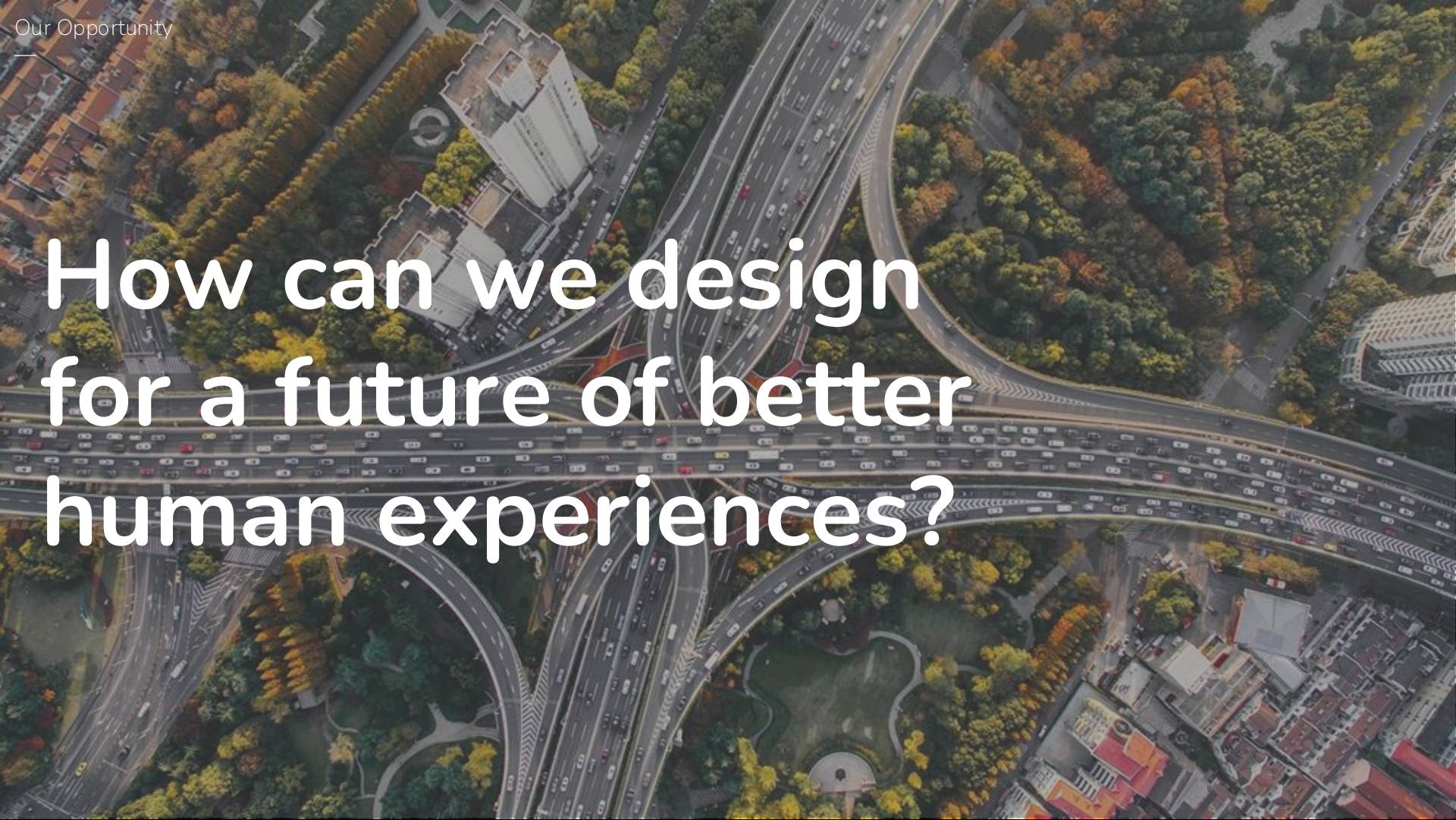


“What matters is not
technology itself, but its
relationship to us.”

The Coming Age of Calm Technology, Mark Weiser &
John Seely Brown, 1997

**Our tech is poisoning our time
(and it's invisible)**

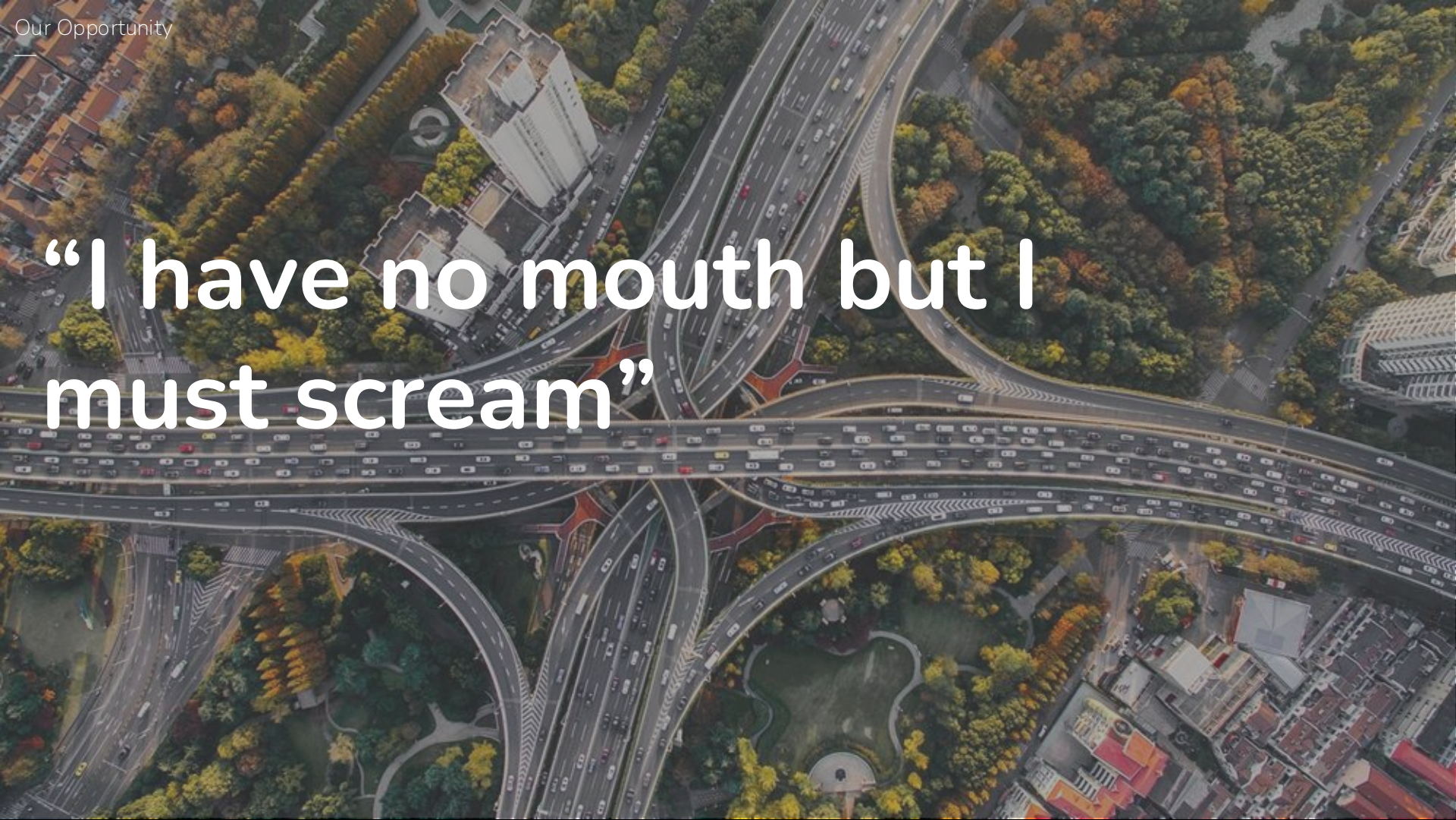




How can we design for a future of better human experiences?

Design is Governance





“I have no mouth but I
must scream”

What kinds of organizations have made change in the past?

1893 Chicago World's Fair

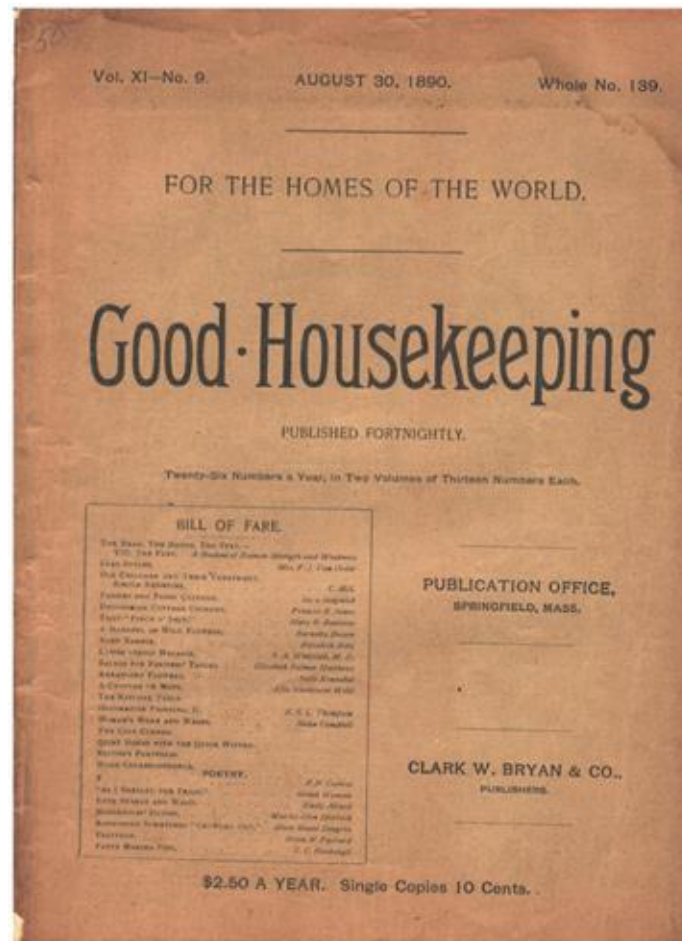
**Electricity was new and
exciting and also
dangerous!**

**Everyone wanted to put it
into their booth,**

**So a set of safety
standards had to be
created**



Good Housekeeping Seal of Approval



AP Nontoxic

Backed by the [Art & Creative Materials Institute \(ACMI\)](#)

This tiny little mark has made more impact on the chemical composition of art materials than anything else, ensuring safety for artists and children.





Calm Tech
INSTITUTE



The First Design
Certification Designed Around
Technology and Attention



CT1. Attention

CT2. Periphery

CT3. Robustness

CT4. Light

CT5. Sound

CT6. Materials

Products have an opportunity to differentiate their brand with experiences that work with attention.



Amber Case

2 days ago

Blog

Calm Tech Institute Certifies New ThinkPad Models

ThinkPad models have recently earned third-party Calm Tech Certified™ Platinum certification, recognizing designs intended to reduce coanitive load and support...

Both the Principles and the Certification Guidelines can work together to create enduring, purposeful, and memorable products.

What does it mean to maintain a living protocol across rapidly diverging product categories?

Three Questions

Formalization

How do you write a criterion for something like "works at the periphery of awareness" that a trained evaluator can apply consistently across a physical alarm clock, a digital interface, and a hotel room?

Formalization

CTI's approach involves operationalizing each principle into observable product behaviors, then distinguishing between criteria that can be verified empirically and those that require calibrated human judgment.

Authority

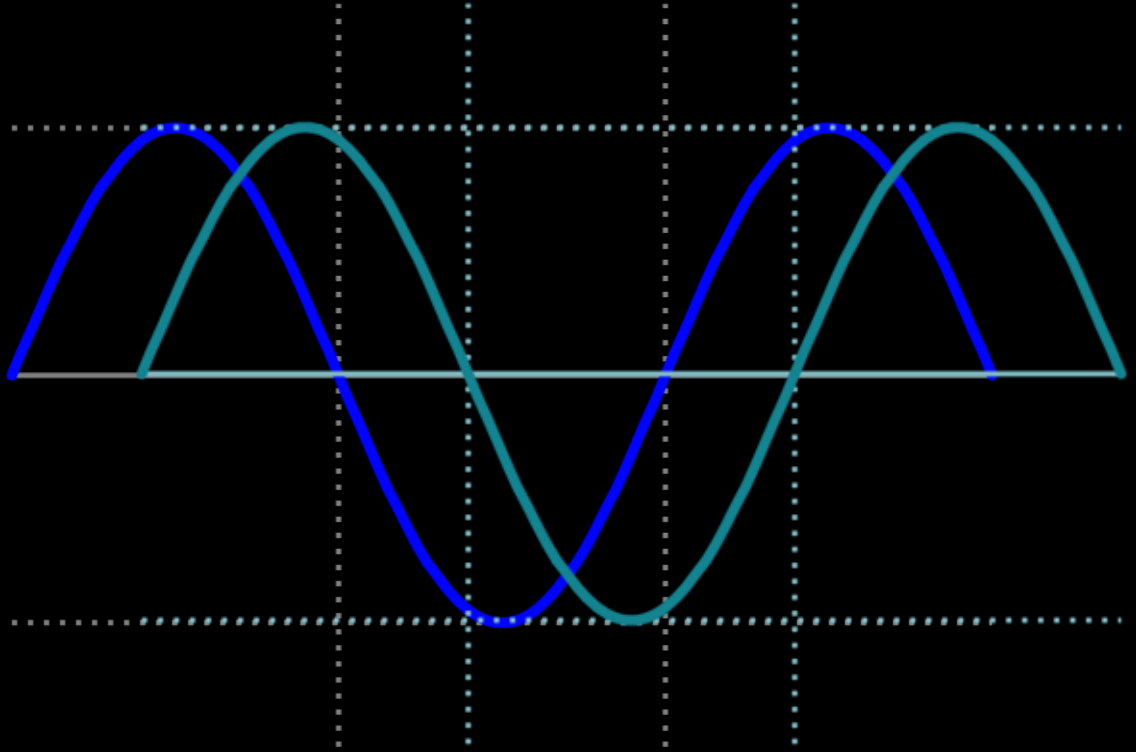
Certification protocols require authority to function. ISO has statutory relationships with national standards bodies. The FDA has enforcement power.

Authority

How can a small independent body can accumulate protocol legitimacy without institutional scale: published criteria, evaluator training and handbooks, a public certification record, an an educational membership?

Authority

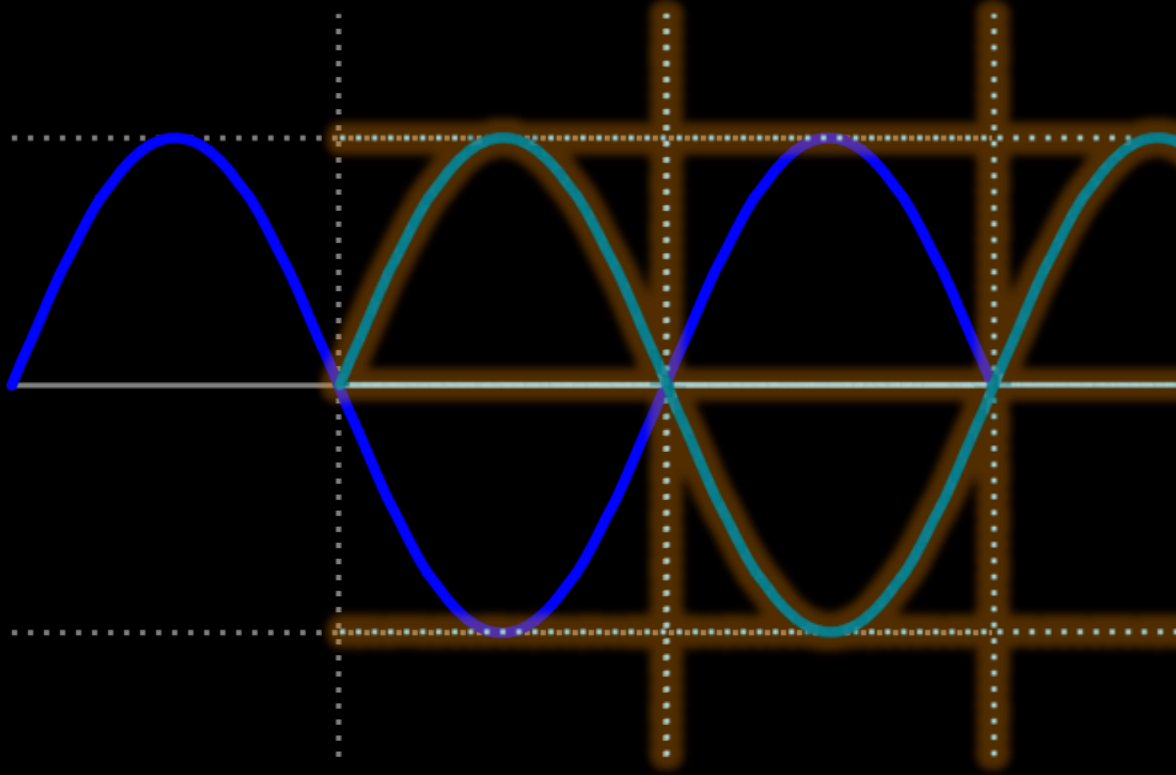
Trust must be earned through time and growth. Focus on the industry, then focus on consumer needs, then industry, then consumer.



Authority

This oscillation must not be kept too far out of balance, or industry's needs can't be met, and consumers will reject a corporate option.

The only way is through, time, growth, and many years.



Durability

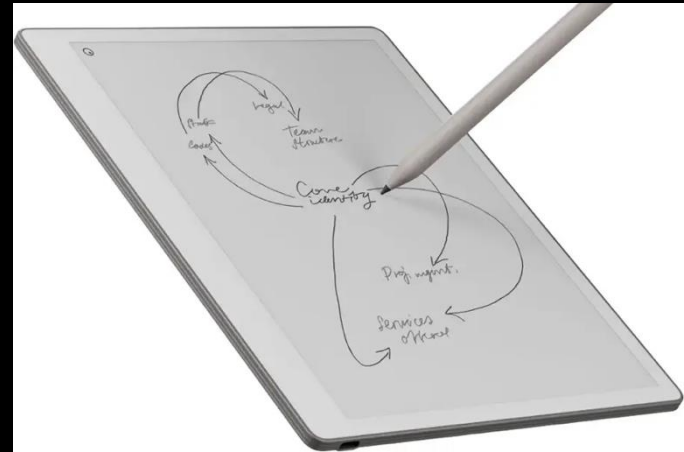
Human perceptual limits are stable, but the technology landscape is not.

Just like a good philosophy, a good protocol written for physical consumer electronics does not require revision when it is applied to spatial computing, AI interfaces, or built environments.



CTI has now certified products across consumer electronics, productivity tools, and hospitality environments. That record makes it possible to evaluate not only how the framework was designed, but how it has held under real conditions.

Calm Tech®
Certified ✓

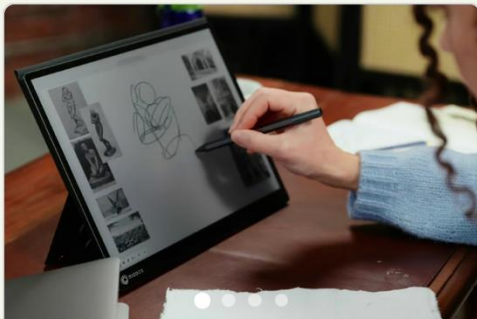


🔍 Search products...

All Certification Levels



All Categories



Modos Flow

A lightning-fast paper-like monitor for everyday use, with 4 display modes for different activities.

Certification Level

Platinum

Categories

Attention

Light

Periphery

Material

Price

\$699



Airthings Renew

For cleaner air, improved sleep, and peace of mind. Removes up to 99.97% of fine particles, quietly and beautifully. Designed in Norway.

📍 <https://www.airthings.com/renew>

Certification Level

Platinum

Categories

Attention

Periphery

Sound

Material



Ohm Resonance Lamp

Ohm Resonance Lamp is a high-quality lamp and meditation stone. The interface consists of a small, stone-like controller that is noticeably...

Certification Level

Gold

Categories

Attention

Light

Sound

Material

Periphery

[Chore Wheel is the first-ever software to be Calm Tech Certified — see the certificate](#)

Chore Wheel

Community Made Easier



"Far more practical and functional than [what] I've experienced in group living before."

- **Molly**, user

"This is a one in a hundred project."

- **Victor**, technologist



AWARDED TO

Kronosapiens Labs, LLC

Chore Wheel

CALM TECH CERTIFIED

SIGNED

A handwritten signature in black ink, appearing to read "Amber Case".

Amber Case
Founder, CTI

CERTIFICATE NUMBER:
S001

PARTICIPANT ID:
S001

CERTIFICATION ISSUE DATE:
09/24/2025

SCORE:
Certified

TECHNICAL ADMIN
STAMP OF AUTHORITY



A person's primary task
should not be computing,
but being human.

Further Resources

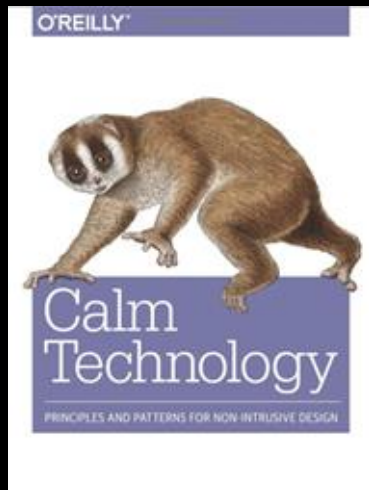
Calm Technology™ is a process
for designing technology that
works **with human attention**,
instead of against it.

EXPLORE PRINCIPLES

CALM TECH CERTIFIED™



calmtech.institute



**Calm
Technology**
Published in 2015



**Designing with
Sound**
Published 2018



Calm Technology
Published 2020 (BNN)



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PROFESSIONAL

Q&A



Learnings for Building AI Systems

Stop building AI as something you
talk to. Build it as something you
live with.

Put it in the corner of the room, not
the center of the screen.

AI output should work the same way.

A margin. A peripheral glow. Something you can glance at rather than something that demands you look.



Weather Status Lighting

Hue Light bulb connected to a weather report

Aaron Parecki
@aaronpk 2014

Give it a tiny vocabulary for interrupting you.

AI should have constrained ways of getting your attention -- maybe just a single subtle signal that says "I noticed something," and then it waits.

You decide if you want more.

I have spent years building the vocabulary and the institutional infrastructure to argue that **most of what the technology industry calls *progress* is in fact a *retreat*.**



When you
ride a bicycle,
*you don't
think about
the bicycle*



There's *no cognitive gap between intention and action*

The interface is so direct, responsive, and legible.





We're currently
building the
**opposite of a
bike for the
mind**



The technology
becomes *part of
the activity*

rather than an
obstacle between
you and the
activity.



How is this different?

You have to **stop what you are doing to invoke the system**, wait for acknowledgment, speak your request in the **correct syntax**, hope it understood, and then wait for a response.





At no point does the technology **dissolve**.

Instead, it constantly reminds you that you're interacting with a system, that you're dependent on it understanding you, that **you're hoping it will do what you want.**





The bicycle gives you continuous feedback through multiple channels simultaneously.

You feel the resistance in the pedals. You hear the tires on the road. You sense the angle of your own body without having to check anything.



None of this information
demands focal
attention.

It flows through your
existing senses,
peripherally, while your
mind stays on *where
you are going.*



How is a phone different?

You can't operate it while paying attention to the world around you.