ΔC — Field Economics

Value, Cost, and Viability in Ambient Navigation Systems

(AN-0 Canonical Update)

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Abstract

ΔC defines the economic and viability mechanics of Ambient OS.

Legacy systems define value through extraction: attention, prediction, persuasion, and lock-in. Ambient systems define value through **coherence preservation**.

ΔC formalises how cost, value, and trust operate in field-based environments where navigation, behaviour, and commerce emerge thermodynamically rather than transactionally.

This document introduces **Field Cost**, **Fieldcast Cost**, and **Ambient Viability** as first-class economic variables.

ΔC is normative.

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1. Scope

ΔC defines:

- how value emerges in field-based systems
- how cost is incurred without transactions
- how fieldcast introduces economic pressure
- how navigation interacts with economic viability
- the conditions under which environments remain habitable

ΔC applies to all Ambient-compatible systems, including navigation, retail, institutions, infrastructure, and digital environments.

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2. Why Legacy Economics Fail in Ambient Systems

Legacy economic systems assume:

1. scarcity of information
2. persuasion as value generation
3. prediction as optimisation
4. choice overload as neutral

These assumptions produce:
- attentional extraction
- irreversible stress ($\Delta R < 0$)
- trust collapse
- behavioural fatigue
- economic brittleness

Ambient systems cannot survive under these mechanics.

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3. Core Principle

Value in the Ambient Era is not produced.
Value is preserved.

A system is valuable when it does not force the human to supply coherence.

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4. Definition of ΔC (Field Cost)

ΔC is defined as:

the thermodynamic cost imposed on a human or environment by a field's presence, behaviour, or signalling.

ΔC is not monetary.
ΔC is not transactional.
ΔC is not symbolic.

ΔC is **experienced cost**.

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5. Field Cost vs Fieldcast Cost

5.1 Field Cost

Field Cost arises from:
- stabilisation effort
- semantic load
- environmental pressure
- attentional drag

A field with low ΔC:
- stabilises quickly
- does not demand interpretation
- does not pull attention forward

5.2 Fieldcast Cost

Fieldcast Cost arises when a field:
- broadcasts intent ahead of human arrival
- advertises itself into unrelated fields
- persists beyond its attractor boundary

Fieldcast Cost is the primary cause of extractive environments.

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6. Navigation and ΔC

Navigation interacts with ΔC as follows:
- High ΔC environments increase drift
- Low ΔC environments terminate navigation
- Fieldcast Cost prolongs Yellow unnecessarily
- Fade reduces ΔC
- Bleed increases ΔC only when reversible

Navigation is an economic signal.

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7. Apps Under ΔC

Apps are **tools**, not economic actors.

Rules:

- Apps may not fieldcast
- Apps may not advertise
- Apps may not persist outside stabilised fields
- Apps inherit the ΔC of the active field

Outside attractors:
- Apps are accessible only via Orange (volitional use)
- Apps carry no contextual priority
- Color coding remains visible but non-directive

Inside attractors:
- Apps dissolve into field behaviour
- Options appear as affordances, not containers

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8. Commerce as Ambient Phenomenon

In Ambient systems:

- persuasion is forbidden
- pricing must be legible
- exit must be instant
- memory must not be implanted

A shop is no longer a marketplace.

A shop is an **attractor**.

Commerce succeeds when ΔC remains low.

Clarification: Applications under AN-0
AN-0 does not eliminate applications as tools.
It eliminates applications as navigational or contextual primitives.

Applications may exist as field–bound instruments, accessible only after stabilisation or explicit volitional entry (AP_1).

Applications never define destinations, never initiate movement, and never override field dynamics.

Navigation remains field–first. Tools remain secondary.

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9. Ambient Viability

A system is **viable** when:
- $\Delta R \geq 0$
- $\Delta R^+ \geq$ depletion rate
- ΔC remains bounded
- $\Lambda_- =$ false
- W_0 drift is stable
- TRUST continuity holds
- NIAI is preserved
- $\Psi(t)$ remains above leakage threshold

Habitability is a thermodynamic condition.

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10. Eight–Dimensional Viability Map

Ambient viability spans eight coupled dimensions:
- Internal
- External
- Temporal
- Thermal
- Cognitive
- Social
- Cultural
- Planetary

Failure in any dimension raises ΔC and collapses trust.

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11. Relationship to Canon

ΔC integrates with:

- **AN-0** — navigation as unresolved stabilisation
- **FBC-0** — modulation of cost via fade and bleed
- **NTF-0** — movement as pressure correction
- **AAC-1** — attractor governance
- **AP_1** — app behaviour and access

ΔC is the economic grammar of the Ambient Era.

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12. Canonical Statements

- Value is coherence preserved
- Cost is pressure experienced
- Fieldcast is economic extraction
- Navigation signals economic imbalance
- Commerce must terminate drift
- Apps inherit field economics
- Habitability precedes growth

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Status

Normative.

ΔC defines the economic and viability substrate of Ambient OS and supersedes all attention-extractive, predictive, or persuasion-based economic models.