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Designing for the Unresolvable

KoanCare as a Generative AI Therapeutic Paradigm for Climate Anxiety in Urban Contexts

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WCDH Borneo 2026, Session 2

Climate anxiety in urban life

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What happens when emotional distress comes from a crisis that one person cannot resolve?

Climate anxiety can become chronic when risk feels both immediate and beyond individual control.

01 Perceived uncontrollability

02 Future uncertainty

03 Moral responsibility

04 Information overload

05 Repeated exposure to climate risk

Research question and design stance

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How can digital therapeutic design support climate-related distress without claiming to resolve the crisis?

No false resolution

The system does not promise control over climate change.

No clinical diagnosis

It detects emotional cues without diagnostic labels.

No authoritative guidance

It redirects attention without imposing meaning.

Conceptual foundations

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Climate anxiety

Uncertainty and unresolved threat

Speech Act Theory

Language can act without explaining

Low-authority reflective support

Metacognition

Thoughts can be observed as mental events

Zen koan dialogue

Ambiguity can interrupt habitual reasoning

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KoanCare interaction sequence

The interface constrains what the AI can do at each stage.

01

Emotional text

The user describes a climate-related concern.

02

Cue detection

The system identifies emotional cues without diagnosis.

03

Visual mapping

Color, density, texture, and brightness shape an image.

04

Ten-second pause

The interface holds attention before language returns.

05

Koan-style response

A constrained response redirects attention without interpretation.

RAG strategy constraints suppress diagnosis, causal attribution, and strong suggestion.

Three design mechanisms



Conceptual visualization

01 Visual externalization

Transforms an internal narrative into an observable object.

02 View-and-pause rhythm

Interrupts repetitive verbal explanation and opens a reflective interval.

03 Non-interpretive response

Redirects attention while limiting the system's expert authority.

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Pilot evaluation

A mixed pilot combined pre- and post-interaction ratings with semi-structured interviews.

Before
Likert ratings

Interaction
KoanCare session

After
Likert ratings and interview

Evaluation domains

Emotional immersion	How strongly the user feels absorbed by distress
Explanation-seeking	The urge to keep asking why the feeling exists
Metacognitive distance	The ability to regard thoughts as thoughts
Perceived authority	How strongly the AI appears to speak as an expert

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Preliminary findings

The observed direction was a shift from emotional immersion toward observational awareness.

EMOTIONAL IMMERSION → **OBSERVATIONAL AWARENESS**

Visual externalization	Participants could regard distress as an object rather than an overwhelming inner narrative.
The pause	The ten-second interval interrupted repetitive verbal rumination and created temporary reflective space.
Koan-style language	The response redirected attention while reducing the impression of expert authority.

Preliminary, exploratory evidence

Conditions and boundaries

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User response depended on

01 Tolerance for ambiguity

02 Acceptance of metaphorical reflection

03 Initial rumination intensity

04 Preference for low-authority support

Claim boundaries

KoanCare does not replace clinical care.

The pilot supports design insight, not a clinical efficacy claim.

Cultural framing and tolerance for ambiguity remain context-sensitive.

Design contribution

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For unresolved urban crises, supportive AI can create conditions for reflection without claiming to supply answers.

AI behavior

Constrain interpretation and authority.

Interaction rhythm

Use pauses to interrupt rumination.

Healthy city design

Include culturally and spiritually sensitive mental wellbeing support.

Thank you

Questions and discussion