"Turn Inward": Co-Designing for Self-Transformation Using Immersive Design Fiction

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Abstract

The pursuit of happiness can be viewed as a process of self-transformation. In Buddhist philosophy, the process of cultivating happiness has been described as an antidote to suffering and is underpinned by practices that support and encourage people to turn their attention and awareness inward. This is a process of familiarisation, investigation and analysis of one's inner landscape.

In this paper, we present our speculative concept, *Turn Inward*, that uses immersive design fiction to co-create technologies for self-transformation. We then discuss the implications of prototyping with immersive technologies to enable participants to explore and interact with the embodiment of their fully realised mental landscape free from suffering –their 'Buddha-mind'. We conclude by considering how our approach of engaging with and embodying our Buddha-mind as designers and users could impact design research and practice.

Author Keywords

Happiness; transformation; Buddhism; virtual reality; design fiction; speculative design.

CCS Concepts

•**Human-computer interaction (HCI)** → **Virtual reality;**
•**Human-centered computing** → *Design fiction;*

Introduction

> Suddenly… *boom!*… awareness and emptiness became one, indivisible, just as it always is. But the recognition had never been this complete before. The last shred of cohesion slipped away. The entire universe opened up and became totally unified with consciousness. No conceptual mind. I was no longer *within* the universe. The universe was within me. No me separate from the universe…
>
> I was no longer bonded to any sense of a distinct body or mind. No separation existed between me, my mind, my skin, my body, and the entire rest of the world. [15]

In this position paper, we present and discuss our speculative concept that draws upon narratives inspired by Buddhist philosophy and practice to inform the co-creation of future technologies for self-transformation. We aim to familiarise participants with the experience of perceiving reality as an enlightened being, through the lens of their 'Buddha mind'. We envision that our co-created immersive design fiction [2], *Turn Inward*, would enable participants to explore representations of future mental landscapes of their own enlightenment –"a state of perfect knowledge or wisdom, combined with infinite compassion" [17].

We aim to create this mental landscape as a "perceptual bridge" [4] between our current selves and our hypothetical 'Buddha' selves. In this way, our research aims to gather qualitative insight and language to better articulate and translate the perceived experiential gaps between current and future autobiographies, thus assisting in identifying context specific design opportunities within the space of self-transformation. This is supported by the Buddhist concept of mind-training [9], whereby one acquires knowledge through a process of continuous reflective practice, habituation, cultivation, and cleansing consequently inducing a profound transformation.

Related work

Design fiction has been described as a method of using diegetic prototypes to invoke futuristic or fictional interactions in order to understand where the 'preferable' sits within the gamut of possible futures [8]. Design fiction is used to overcome the "experiential gulf" between one's future self and one's current reality [6]. In fact, there is an entire field within human-computer interaction (HCI) dedicated to bridging this gulf [14], yet literature on the inner mental development of participants is still rather scarce and open to scholarly investigation.

Our research attempts to address this gap by building upon work by Mah, Loke and Hespanhol [12] that speculates upon forms for translating the qualities of experience from traditional ritual practices for self-transformation, such as compassion cultivation, into experiences with technology for the same purpose. We expand from Cheon and Su [7] who used futuristic autobiographies to investigate how the current values of participants impacted their designs and design practices.

Immersive design fictions explore how to encourage dialogue between a speculative design context and present first person narratives through embodied interaction [14]. Adopting technology such as virtual reality (VR) to support our design fiction poses several advantages. Arguably, a core strength of VR is that it allows us to step out of the bounds of reality and experience paradigms that are otherwise impossible [18]. We argue that the use of immersive technologies in this context enables a deeper exploration of themes such as disembodiment/ embodiment, defamiliari-
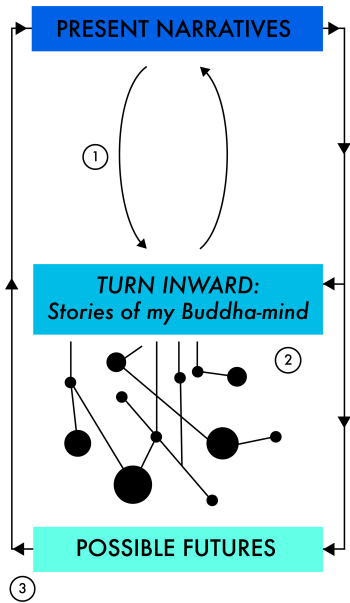
Figure 1: Implications of *Turn Inward* are threefold.
1. Present design practices and behaviour: Reflecting upon the present using design fiction.
2. Possible future design contexts –Greater understanding of designing for Buddha-mind states
3. A method for design inquiry: A self-driven or reflective mixed reality-driven design method for investigating possible futures for social entities in various scales.

sation/ familiarisation, making strange [11] / discovery and self-reflection. We draw inspiration from existing immersive artworks embodying such themes [3] [10], as well as applications designed for self-dialogue [18].

Co-Designing Self-Transformation: Turn Inward

Turn Inward uses a co-design methodology [1] that reflects and explores the experience of insight and abiding in transcendent states [19]. Inspired by Buddhist philosophy, the storyworld of *Turn Inward* will be informed by co-creation sessions with Buddhist scholars and meditators, gathering their experience and understanding of transcendence or their Buddha-mind. The opening quote of this paper [15] is an example of such an experience.

We will then carry out a study with participants who are engaged in or interested in practices for self-transformation. Participants will be invited to explore and discover the storyworld of *Turn Inward*, embodying their own Buddha-mind and generate their own stories through this enactment. We will ask participants to reflect upon current and future technologies embedded in these scenarios, and which could support the process of self-transformation thereby promoting the cultivation of happiness.

Discussion

Biocca [5] suggested ways that a VR interface could become more human-like in response to the *The cyborg's dilemma*. Our speculative work proposes a method for systems to become more "Buddha-like". We suggest the possibility of intertwining design with a process of continuous reflective practice upon mental states that are, for many, currently abstract and with limited capability of exploring. We foresee at least three key implications to the field, illustrated in Figure 1.

1. Present design practices and behaviour
Our system provokes a discussion stemming from the meeting with one's own primordial Buddha-mind. This can promote reflection of present narratives using design fiction with a focus upon the inner mental landscape of participants and its further development.

2. Future design contexts
Designers can generate a greater understanding of possible future design contexts when designing for self-transformation. We can consider how to analyse the relationship between the present- and Buddha-mental states, and design nonfictional solutions to help people to bridge that gap.

3. A novel approach for design inquiry
We posit that the process of using 'self-driven' or 'reflective' mixed-reality/ immersive design fictions, like *Turn Inward*, can be framed as a novel design method to be used for investigating possible futures for a range of social entities in various scales. This can range from individuals, to communities, cities, countries, and even the whole of humanity (for example, in the context of climate change or pandemics).

Conclusion

In this position paper, we argued that immersive design fiction can assist in the development of a deeper understanding about mental landscapes along the spectrum of self-transformation towards the Buddha-mind, posing great potential in the design of solutions to support self-awareness and self-reflection. We presented our concept *Turn Inward*, a Buddhist-inspired co-created immersive designed fiction, as a speculative example of this. This research will add to the growing body of work exploring qualitative insight [16] [13] on the experiences of inner mental landscapes, including transcendent states, in order to more meaningfully design for self-transformation.

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