

Do Humans Dream of Digital Devices? Subconscious User Experiences and Narratives

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ABSTRACT

Do humans dream of electronic and digital devices? Or are our dreams free of technology, its influences and disruptions. When technology does appear, what part does it play in our subconscious narratives? Dreams are a reflection and distillation of our daily cognitive processes and waking experiences, and ubiquitous items such as mobile phones have become part of our everyday existence. This pictorial explores subjective dream imagery and narrative concerning the appearance and user experience of technology within our subconscious.

Authors Keywords

Dreams; User Experience; Art; Narrative; Subconscious;

CSS Concepts

- Human-centered computing

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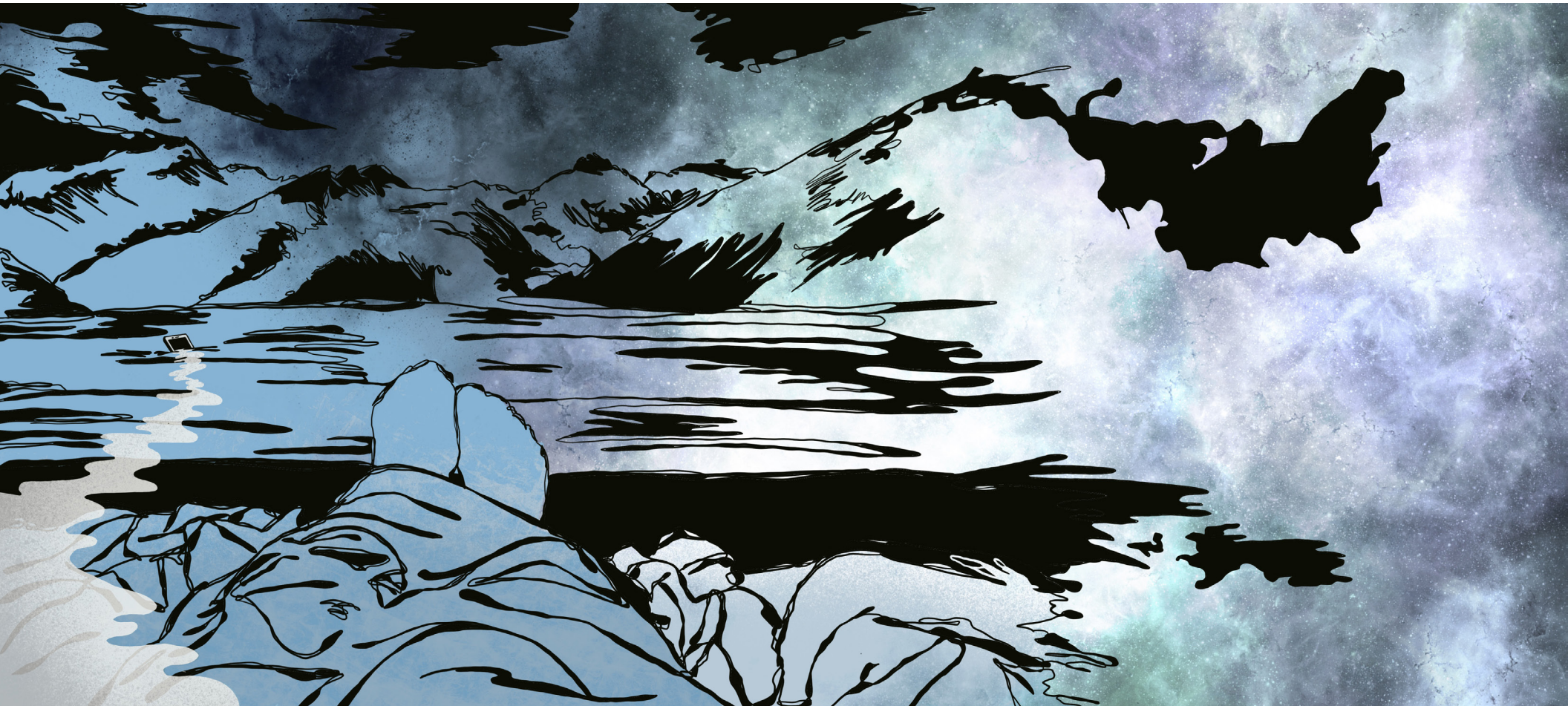
INTRODUCTION

The world of dreams has long held a fascination for artists, notably in the Surrealist movement, but also within the work of many others who have been inspired by their subconscious lives across thousands of years. Our dreams are rooted in reality, but that reality takes on new meaning when the lens is turned inwards. Here, we look at subjective, and subconscious user experiences: as researchers and artists how do we internalise our experiences with technology? Each researcher chose three dream narratives to explore, based on either reoccurring dreams, or individual dreams that were recalled during the course of the research. These were explored artistically, using each artists' personal style, and each tells a story about our relationship with digital devices.

Within Human Computer Interaction, the dreamscape offers several intersections with existing work. From the pictorial perspective, our work might be seen as an echo of Yurman's use of experimental drawings to speculate on design functions and mutations [14], but where they lean into the material properties of watercolour paint to create ambiguity and defamiliarization, we aim to achieve a similar state of free associative visualisation through the introspective, slippery process of dream documentation, and to then capture those associations through affinity diagramming. We also explore the tensions between artistic practice and research by documenting our dreams as artworks in their own right [13]. Gaver's work embracing ambiguity as a space for reflection in design offers a research lens for this kind of work – a dream is not a black and white interpretation, but merely an invitation into the mind that can be viewed in many different ways, encouraging the viewer “to supplement [it] with their own interpretations and beliefs” [3]. Research into dreams, including artistic response, and empiricism is vast, so whilst we do not touch upon each thread of the literature and narrative, we acknowledge the vast corpus of human experience that precedes this visual exploration of our subconscious in relation to technology.

The artist slowly walks along a highway, location unknown, at night, it is windy. She has dropped her phone, it is unclear whether it is intentional, although she appears still connected to it via her shadow as she calmly walks away with her hands in her front pockets. The highway is surrounded by a dark and empty forest to the left and a large gathering of bushes to the right. The highway leads to darkness although it does not appear scary or unbecoming.

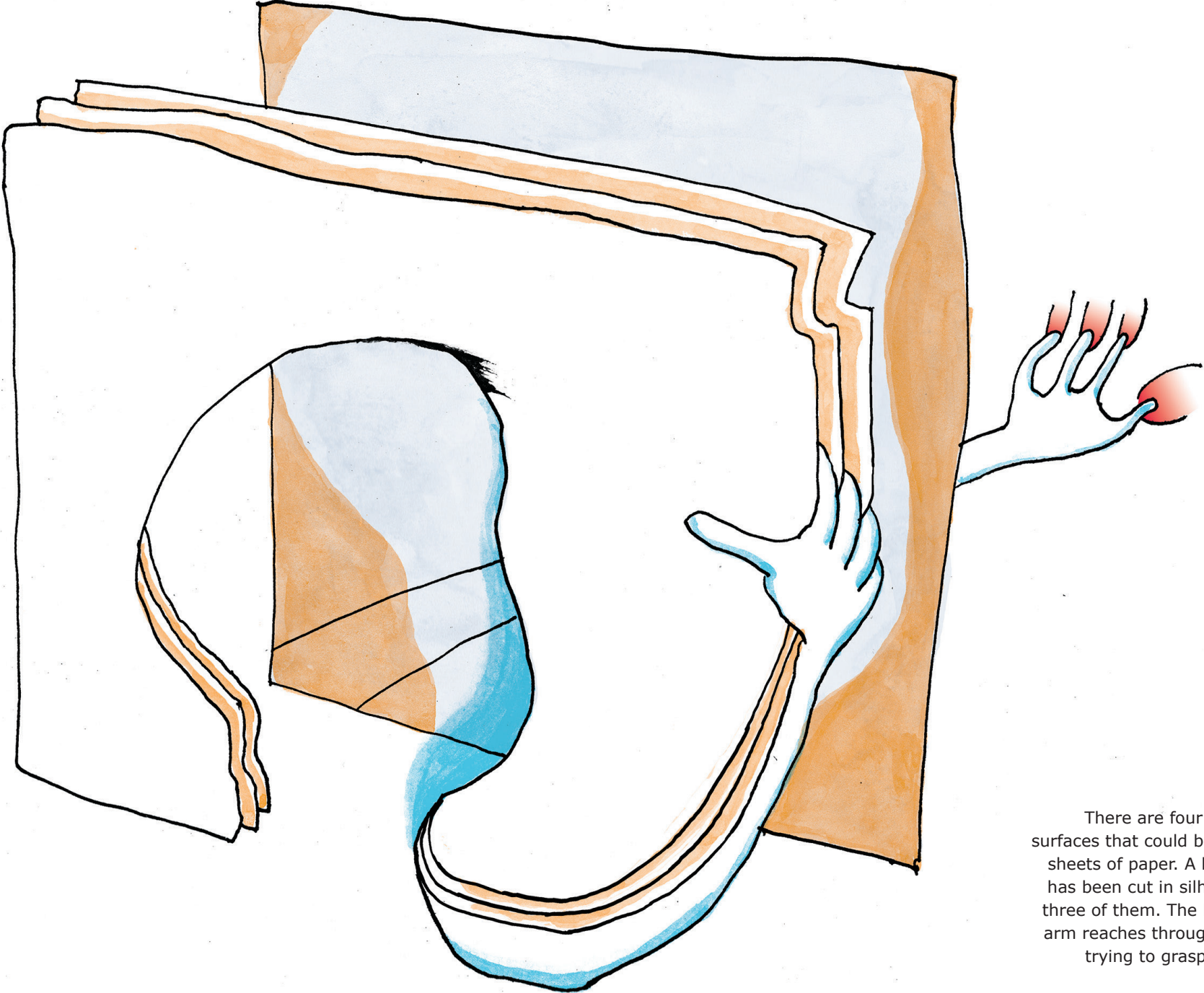




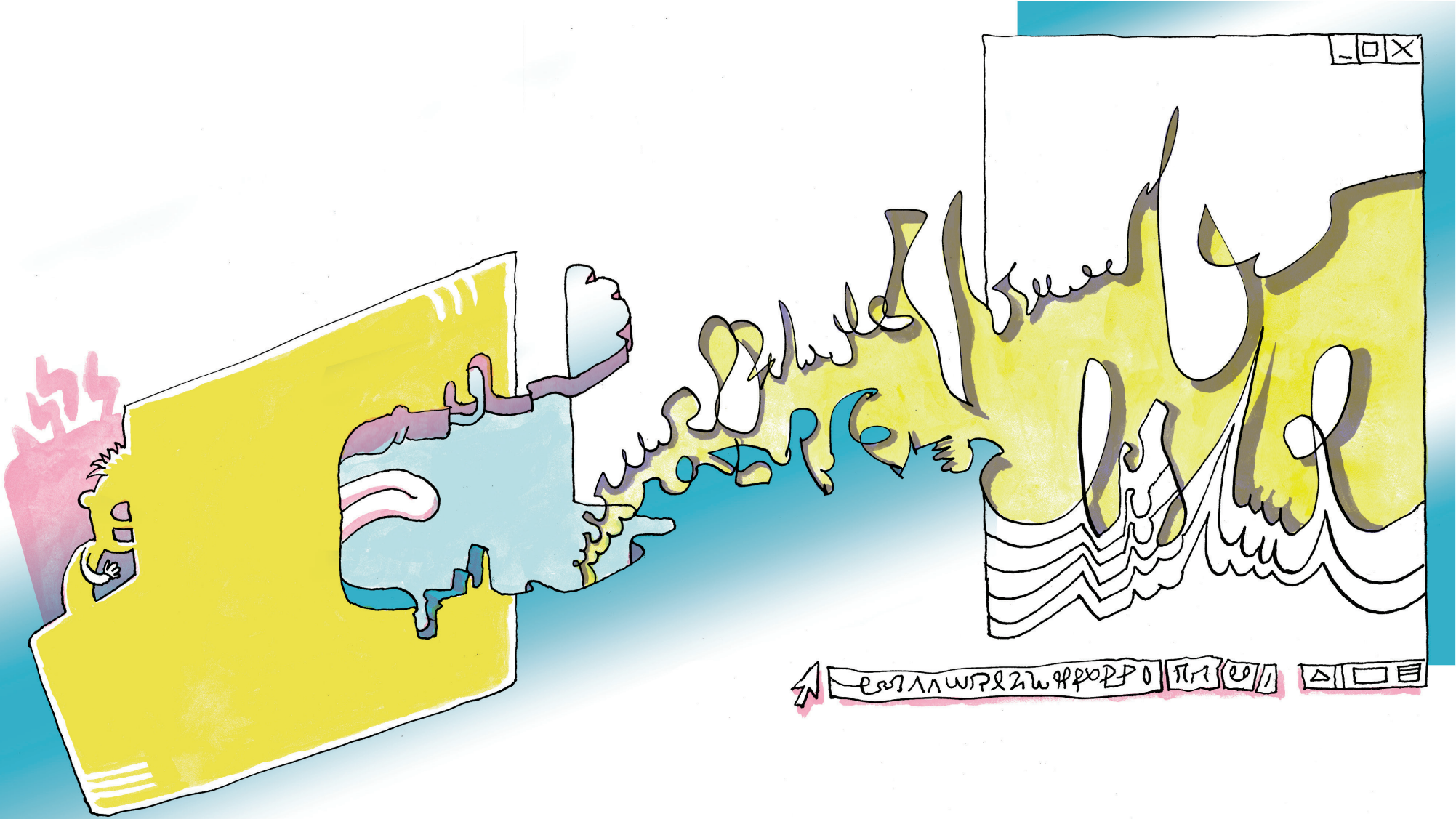
The artist lays in bed looking at a mountainous unknown region with a vast lake between her feet and the shore on the other side. It is unclear where she is, it appears to be the vacuum of space, with a bright and colourful nebula to the right. In the far distance is a smartphone sinking into the lake, a trail of light, maybe the journey which it has taken, is connected to the phone and author's body, maybe her hand. It is unclear whether it is day or night.

The artist appears to be part of a crowd, or may be standing at the back of a crowd. They all appear robotic, no features or emotion. They are heading into a location that appears magical, mechanical, resembling a heart beat. The space they are leaving is undefined; it appears to be in a spatial void.

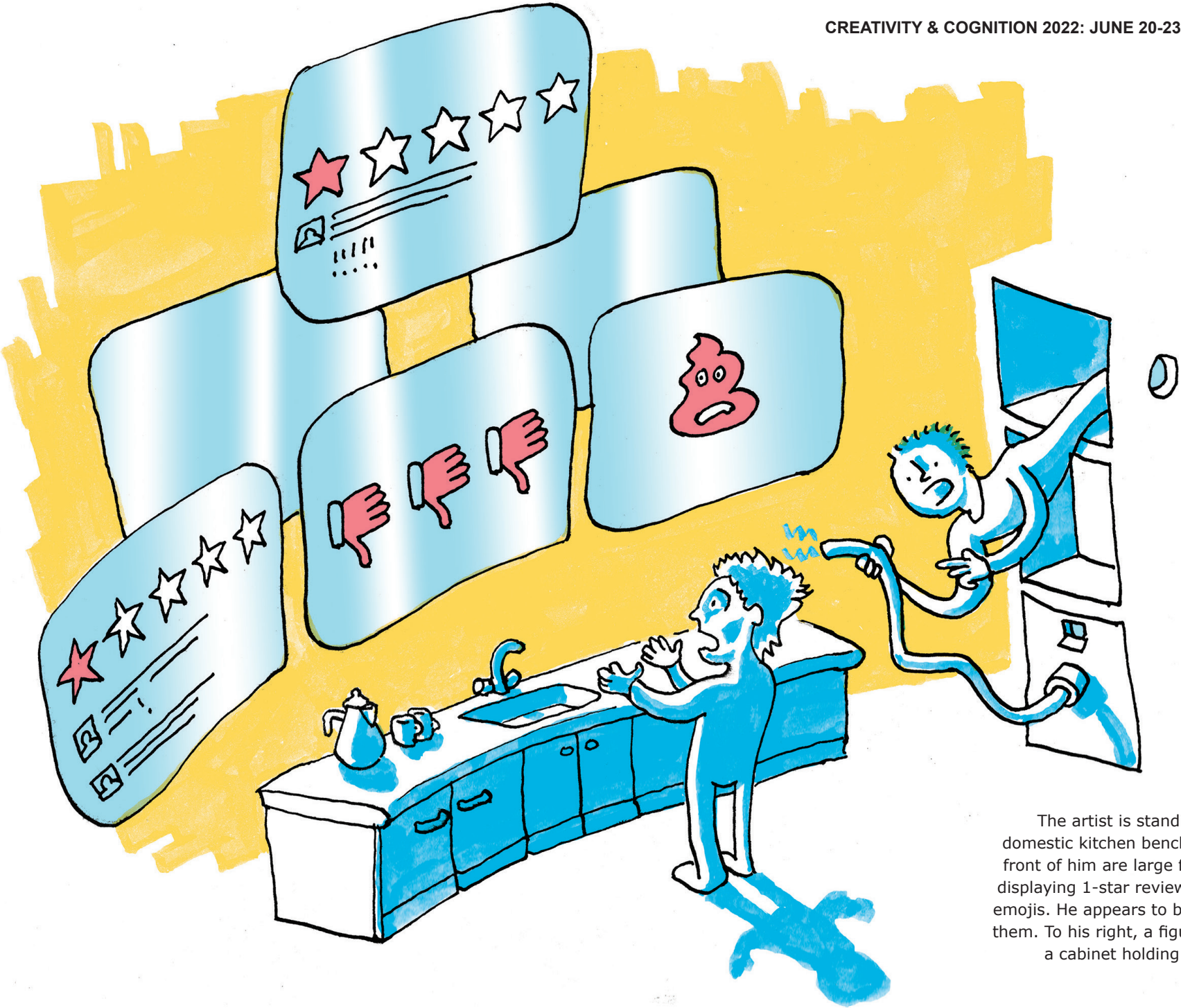




There are four overlapping surfaces that could be screens or sheets of paper. A human head has been cut in silhouette from three of them. The human's left arm reaches through the fourth trying to grasp something.



The artist is using voice-to-text software to dictate into a word processor, but the words do not seem to be making coherent sentences.



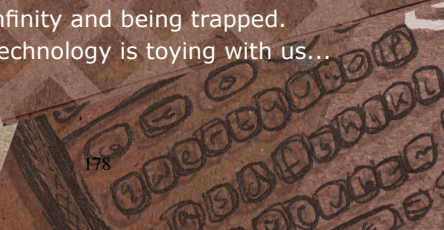
The artist is standing in front of a domestic kitchen bench. Above and in front of him are large floating screens displaying 1-star reviews and negative emojis. He appears to be pleading with them. To his right, a figure leans out of a cabinet holding a flexible tube.



Over and over and over and over and over and

I was drawn
to you

A twisted maze of digital devices,
infinity and being trapped.
Technology is toying with us...

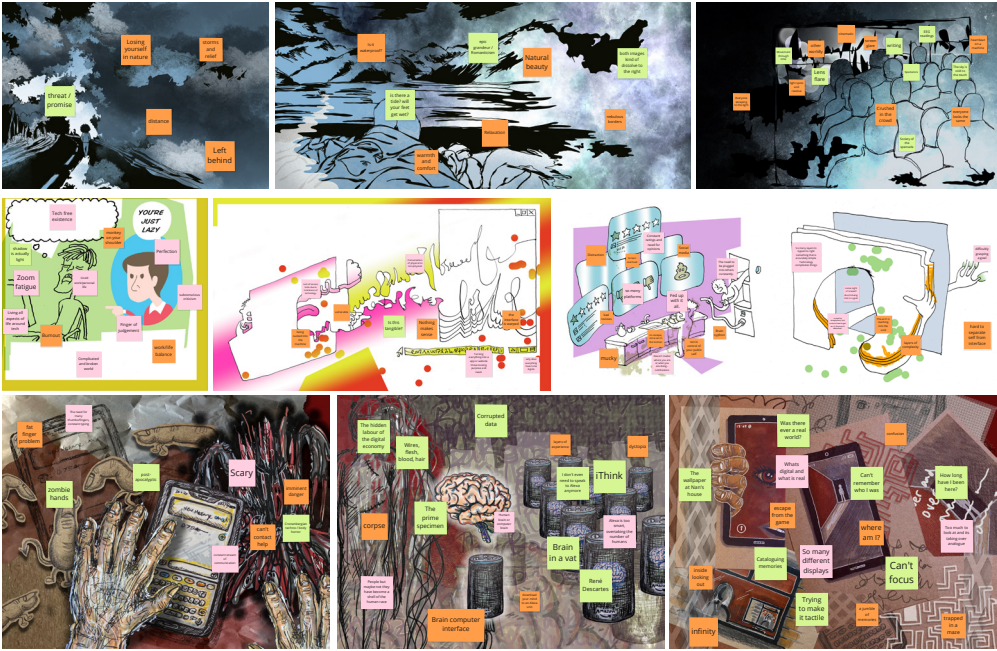




The artist dreams that she is dying, and wishes to download her mind to an Alexa. Her partner does not wish this twisted way of life to happen. The world is changing, where is the line drawn?

Shaking hands try to enter a phone number to call for help in the face of danger, which is illustrated by a nebulous and fearful monster with fearful faces embedded in it. In the background, devilish thumbs and fingers dance on tiny legs over the superimposition of the same phone in the foreground. Crumpled paper texture and red paper mountains are overlaid in the background.





INTERPRETATION OF TECHNOLOGY IN DREAMS

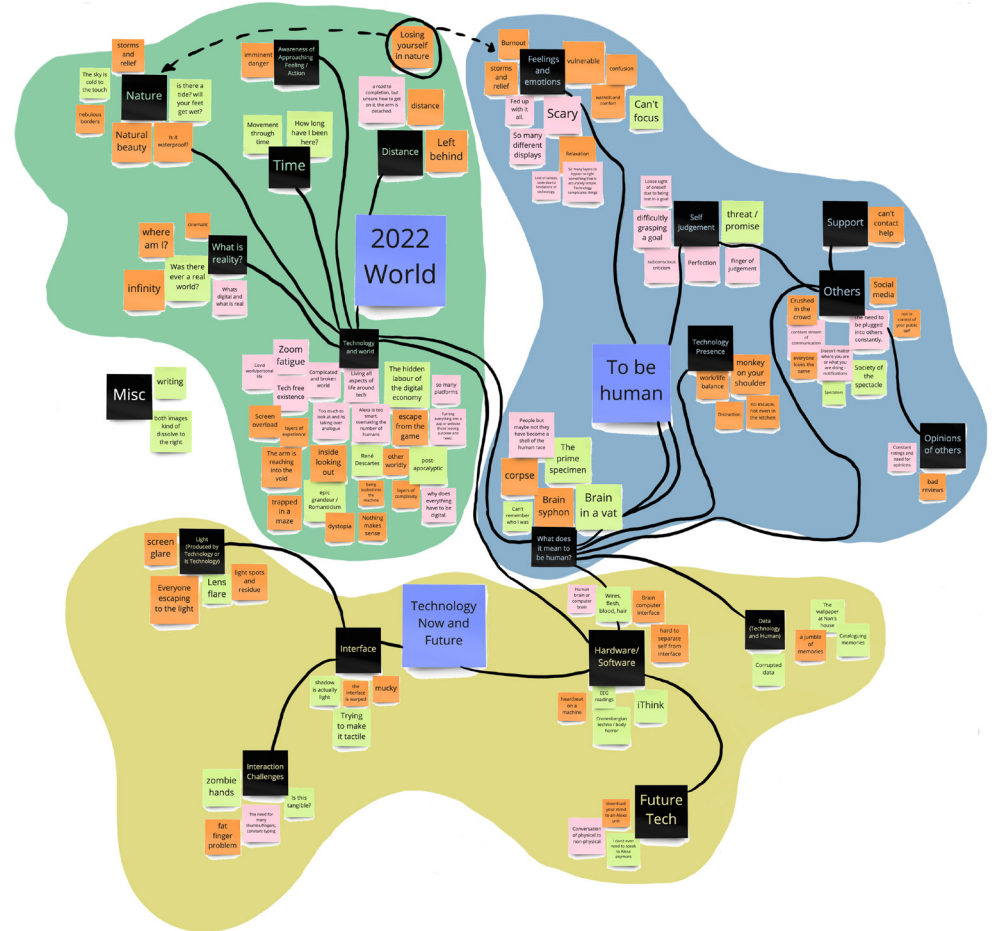
Post submission of the dream visualisations the authors carried out a brainstorming session to gather thoughts and interpretations of imagery, using an online collaborative whiteboard, Miro, to organize and consolidate insights from the session. 109 post-it notes were created across the 10 images, with between 5 to 16 interpretations per image. Following this Author 2 conducted affinity diagramming [1] to gather emerging themes, and their relationships, of technology representation amongst the authors dreams. Authors 2 and 3 then came together to establish the trustworthiness of the categorisation process. Twenty-one codes were clustered into 3 themes: 1) 2022 world, 2) To be human, and 3) Technology, now and future. The themes that were generated are interrelated, and those connections are shown via linking lines. The Miro board will be made available after publication to invite collaborative exploration. Alt-text of the process is available.

Although this is a small beginning, it shows the rich potential of Affinity Diagramming as a method for exploring the narratives within dreams about technology and its context within the subconscious. As a pilot study, it is a valuable insight and starting point for a potentially rich and detailed investigation into subconscious user experiences. Of particular interest is the background of the three artist/authors – with varying levels of familiarity with, and work with technology, yet all have embedded technology in their dreams. The following section elaborates upon both background and future of this work.

BACKGROUND & REFLECTION

Dreams have always held a sense of fascination for mankind, and whilst they might not be able to foretell the future, or offer any other arcane insights, they are yet reflections of ourselves: our needs, desires, and lived experiences. The demographics and science of dreaming are fairly well known. For example, we know that dreaming occurs during Rapid Eye Movement (REM) sleep, which is usually part of one of several sleep-cycles, and also that these sleep cycles are essential for our ongoing healthy existence. Those who are unable to achieve or sustain REM sleep are at risk of increased mortality, and onset or worsening of conditions such as heart disease, or dementia [9]. Lack of sleep also can cause hallucinations, madness and delirium, witness one radio DJs experiences which were publicly documented in Peter Tripp’s ‘Wakeathon’ [2].

In terms of the dreamed experience, research suggests that this is also a reflection of directly lived experience, the most commonly reported dreams usually consist of knowns, whether from direct experience (ie. The individual’s daily life) or indirect experience, such as scenes from a film, a description from a book, or even a new article. Dreams can be wonderful or terrifying, span minutes or feel like decades have passed, take place from different viewpoints, different bodies. Many people do not even remember their dreams, bar exceptional circumstances such as a particularly potent or relevant nightmare, others remember their dreams all the time, even finding that they serve as inspiration or a problem-solving exercise [4].





During the pandemic in particular, dreams took centre stage as researchers sampled subconscious experiences and found patterns – and these patterns were highly related to anxiety. For example, it was found that people were more likely to have difficulty falling, or staying asleep, and more likely to dream and have nightmares, which might represent a collective trauma [11, 12]. Hartman [5] suggests that nightmares contextualise emotional concerns, putting a ‘pictorial’ face on our thoughts and feelings, especially in response to particularly traumatic events such as 9/11 [6]. Dr Julia Lockheart’s *DreamsID* work especially highlights the peculiarities and heightened emotions during the pandemic, painting concurrently whilst another describes their dream and discusses it with a trained psychologist¹.

More directly related to this work in particular, is the anxiety of everyday life, an everyday life that also reflects everyday technologies. Three artists and researchers each documented three remembered dream experiences in which they directly recall technology being present, and the subsequent interactions (or lack of) with that particular technology: The ubiquitous mobile phone, the

laptop computer, the games console, the voice activated assistant and so forth. What is even more telling is the context of these devices, and how they directly relate to the subconscious narrative, for example, some are nightmares where items do not behave as expected (p10), or trap us (p8), but others show the digital item being left behind and a sense of calm remaining (p2, 3). We focus on the imagery as central in this exploration, as the images connect us with the viewer and tell their own stories, as well as offering insights into process and expression.

We subjected each image to an affinity diagramming exercise to tease out both the subjective feelings about the scenarios depicted, but also the objective viewpoints of each artist who shared a window on the mind. These affinities which were captured and explored in the imagery on the previous page, tell us a lot about our inner selves, but also of our artistic approach.

Kris and Gombrich credit psychoanalysis with the introduction to European history of the idea that the work of art is a projection of an inner image, highlighting surrealism as the culmination of attempts to make art a mirror of the artist’s unconscious, but also describe caricature as analogous to the merging of form and substance that occurs in dreams [8]. Malinowski and Horton’s [10] review of emotion and metaphor in dreams appears to ratify both early interpretations of the dreamscape, as well as latter-day investigative approaches:

“...dream metaphors picture abstract concepts in concrete terms; these metaphors are specialized to the dreamer and thus to understand the metaphor it is necessary to elicit the input of the dreamer; and emotions guide the metaphorical imagery of the dream”.

Our images are both constructed art, and re-constructed dreams – we draw them not as we remember them in photorealistic terms, but our own subsequent exploration of meaning, context, and self. However, the Affinity Diagramming exercise allows us to not only see ourselves, but how others see us, in our illustrated dreamscapes – akin to the Johari Window [7] – and now we also invite you to see us, as unknown individuals.

However much we think we know of dreaming, it may be just the tip of the iceberg, as we do not have windows into the sleeping mind, only its visceral reactions. Research into dreams relies on self-reporting which is highly subjective, but can yield great insights, especially when used in contexts such as art therapy. As artists, researchers, and people who remember their dreams quite vividly, we attempt to convey depictions of our subconscious user-experiences, which communicate the theme and context of technology within those narratives, and offer a possible new research lens for Human Computer Interaction.

In reflecting upon this first foray into subconscious user experiences, we already begin to identify threads of future research and open research questions:

- 1) *How prevalent is the appearance of technology in dreams?*
- 2) *What emotions do people associate with technology when it appears?*
- 3) *Do user-experiences conform to usability norms, or is technology unpredictable?*

In particular, the next stages of this work will examine the wider population, and map their experiences onto existing psychological scales for anxiety, and examine how subconscious user experiences might differ from waking ones. Further, it is possible that the use and depiction of technology may help inform new designs, interactions and methodologies within HCI. We also invite the reader to explore their own subconscious user experiences in line with these questions, and invite correspondence and interpretation, both in the presentation of this work, and afterwards as we further our explorations.

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¹dreamsid.com

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