THE DIGITAL DREAMHACKER: CROWDSOURCING THE DREAM IMAGINARY

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Abstract

The digital Dreamhacker is an application that collects dream themes reported by individual dreamers and turns them into crowdsourced imagery. These dream visualisations are then uploaded onto the Social Web, allowing for further commentary and collective interpretation. We thereby focus on the social context of dreams, creating visualisations that are neither depictions of individual imaginings or a means of enhancing artistic skill, but involve the reframing of dreams within the technical and *social imaginary,* which forms our collective understandings and expectations of social life. We outline a research strategy in which social media, supported by methods that emanate from both critical design and network analysis, are innovative contexts in which to explore the connection between technology, culture and our individual 'imaginings', including our dreams.

Keywords: design, interaction, networks, dreams, crowdsourcing, hacking, visualisation.

The belief that, in the early days of television, people dreamed in black and white but began to dream in colour with the advent of a colour TV service, has been verified by a number of research studies, for example Okada, Hitoshi; Matsuoka, Kazuo; Hatakeyama and Takao (2011) [2]. This phenomena evidences the significant connection between technology, culture and our individual 'imaginings', including our dreams. The Dreamhacker project investigates this relationship between technology, culture and imagination. The project is premised on the idea that dreams are never isolated from the wider social imaginary, the meaning of which will be clarified shortly. The Dreamhacker application exaggerates and throws light on this cultural, social and technological mediation of our dreams.

The Digital Dreamhacker project started in November 2012. At that point we developed a digital dream visualisation application and asked participants to use it. The dream visualisations produced were then uploaded onto the web, allowing for discussions and further interpretations. This paper will introduce the Dreamhacker application, explain our reasons for developing it and position it within existing theories, while it will also outline what we have learnt from developing the software.

How does the Dreamhacker work and reasons for developing it

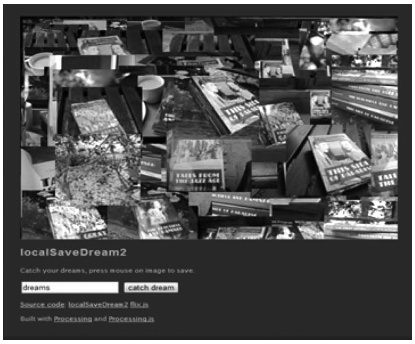

Fig. 1. The Digital Dreamhacker application. (©Antonopoulou, Dare).

The Dreamhacker is a digital application with an interface that allows participants to enter keywords to describe their dreams. The system then creates a visualisation, which is based on crowdsourced online images that are tagged with matching metadata (fig.1). Since the elusive meaning of the dreamers' keywords is the only parameter that defines the selection of the online images used, the generated dream visualisation does not have many visual similarities with the image that the dreamer recollects.

It is important to state that the project is not about the literal illustration of dreams, but more about the repurposing of dreams. It is a form of crowdsourced 'hack', in which we take images from an online community and subvert them into dream visualisations and diverse social networks. The terms 'hack' and 'hacking' are used by this project in the sense that Fuller has defined, whereby technology is "interrogable or hackable, it allows and encourages those networked or enmeshed within it to gain traction"[3]. 'Traction', in the context of the Dreamhacker projects, represents an energetic meeting and exposure of forces – the imaginative, subconscious forces of dreams on the one hand, and the conventional stagings of human computer interaction and communication via social media (including their underlying protocols), on the other.

The project is not about an individualist form of hacking, nor is it about individual identities and personalised imagery. The project is about hacking into the *social imaginary,* which, in this context, refers to the collective representation of our inter-subjective experiences and their associated symbolism. Such a *social imaginary* (or social fantasy system) was identified by R.D Laing as a state of complicity in the enforcing of a normative, rational, and non-creative subjectivity [4]. Our identification with Laing's framing of the *social imaginary* further refutes the idea that this is a self visualisation project or an endeavour to enhance individual 'creative skills'. The project is about the social aspect of dreams. The crowdsourced images act as a visual manifestation of the connection between dreams, technology and culture; they raise questions about the significance of using social media to stage an alternative logical framework for mediating dreams. This techno-social aspect of dreams is further explored in the final step in the Dreamhacking operation, where dream visualisations are uploaded onto the Social Web (fig.2). In this way they are gestated and hatched through dialogue, collaborative interpretation and further re-shaping.

Fig. 2. Uploaded dream visualisations, which allow for commentary and further interpretation. (© Antonopoulou, Dare).

The Dreamhacker can also deploy user defined image files instead of crowdsourced ones (fig.3). However, this option does not and cannot enable them to 'opt out' of the Social Imaginary. The dream visualisations that the system generates are never about individual

imaginings alone. Dreamhacker visualisations are still mediated by a technology which carries its own aesthetics and assumptions [5], including the formalism of its communication protocols. The Dreamhacker redistributes and disrupts user material with these protocols, creating an artefact that is oblivious to the emotional significance of the dream material to the dreamer.

Fig. 3. Interface where the participants can upload their own images. (©Antonopoulou, Dare).

The Deamhacker technology (meaning the network protocols, coded logical structures and online contexts it works with) are not neutral presences, but co-agents, as ideologically loaded as any other cultural system. In this regard, the project is informed by the arguments of Mateas, who uses the term 'Expressive AI' to emphasise the cultural and emotive significance of coding structures, which we also explore in the context of our work with digitally mediated dreams. Mateas writes of 'the sense that there is an entity living within the computer that has its own life independently of the player and cares about how the player's actions impact this life' [6]. This is the entity, imaginary or otherwise, that we refer to as a ' co-agent'.

The agency of the application in connection to the agency of Language

The agency (or controlling influence) of the application has been taken into account throughout the project and is expressed through the ambivalence and agency of language. The use of fragmented words, such as keywords, as the only way to crowd source images, not only further disrupts the elusive meaning of the dream descriptions, but (as noted above) it also limits the possibility of creating visualisations that correspond to the dreamers' individual imaginings. The ambivalence of keywords widens the spectrum of the *social imaginary* by inviting a greater number of collective images that correspond to the dreamers' input.

We have also subverted the common existing protocols of web services into speculative protocols that operate as actors within the narrative of the Dreamhacker. For example, UDDI (Universal Description, Discovery and Integration) has been reframed as *'Universal Dream Description and Integration'* and WSDL (Web Services Description Language) has been repurposed as '*Service Dream Language'*. These semantic re-framings are not merely a play on words, but an attempt to create an arena for exploring reified technological configurations. As actors, the custom made protocol called *UDDI* (Universal Dream Description and Integration) provides a communication standard for interaction. The WSDL protocol is a messaging service that transports and stores the user-defined ontology.

The UDDI protocol provides an opportunity for users to request a visualisation based on either dream content or dream form. Similarly to their original role, these subverted protocols act just as servants, transporting information that makes no sense to them. So naturalised have web protocols become that they are almost invisible to us. The fact that we have subverted them is not only intended to point out their presence in the system, but also to highlight the fact that they are oblivious to the meaning that they transport.

Furthermore, the ambivalence and cultural weight of language played a significant part in naming the project. Originally we wanted to call it the 'Dreamcatcher' because the system collects dreams, however we had to confront the reality that the ancient indigenous American idea of a Dreamcatcher is not something we can have a solid cultural understanding of, and we did not, in the end, feel comfortable appropriating this term. We might also have called the system a "Dream-hatcher" as it allows dreams to grow through social interaction and discussion. But we eventually settled for the term "Dreamhacker" as this is what we believe the system enacts: a form of machinic traction against the social imaginary of dreams.

Theoretical background and our Philosophical position

We frame the Dreamhacker's crowdsourced dream images as works of post-production culture [6] in which individual authorship is remixed, hacked and re-appropriated, resulting, we argue, in a form of collective social and technological dream grammar.

We also frame the Dreamhacker as a variant form of 'design fiction' which materializes ideas, the way that science fiction materializes ideas[7]. In a similar manner to science fiction, it is enmeshed with speculative–fictional design mechanisms, features and protocols. This is the case, for example, with the subversion or 'post-production' of existing Web protocol languages. However, unlike many design fiction projects, our motivation is not to create a non-functional prototype that speculates a future product. Instead, we have created a functional networked application that, in keeping with the semantic framework of dreams, is generative of ambiguity. Moreover, as with critical design philosophies [8], we do not view design as a process by which we could create instrumental, commercial products, but rather as a channel for dialogue and cultural commentary, as well as a conceptual challenge to established practices. This way, online discussions about the uploaded dream visualisations offer spaces for conversation and social interaction.

If there is an overarching term which best describes the Dreamhacker project it is the artist Jeremy Deller 's neologism 'social surrealism'. This term involves 'inverting reality and changing reality if only for a day or a week and changing how you look at the world' [9]. Deller has used the Carnival Procession as an example of Social Surrealism, in which social roles and power relations are inverted. Like Deller's idea of the carnival, dreaming creates a similar form of ontological revolution, disrupting everyday reality in keeping with the disruptive surrealist agenda.

The mechanisms deployed by the Digital Dreamhacker are updated surrealist strategies, such as randomness and chance operations. These are serving as both metaphors and functional agents for the arbitrary collective grammars that shape both our dream imaginings and waking languages. Despite their often arbitrary form, we do not assume a value-free dream imaginary, anymore than we would propose a neutral waking imaginary.

The similarities between dreams and the Dreamhacker

The chance operations of the Dreamhacker system preserve and transmit the illogical processing of language, space and time that happens in dreams. While dreaming, space and identity do not obey their waking constraints, and symbols are often swapped for homonyms. Similar to dreams, the Dreamhacker system cannot know what is cognitively anomalous and cannot fully translate contextual meaning of the keywords. For example, if someone enters the phrase 'had a row' in the Dreamhacker interface, the computer cannot understand if it means that the dreamer was rowing a boat, had an argument or had a series of objects placed next to each other. As a result, the crowdsourced images chosen by the system could refer to any of these meanings. We thus propose a parallel between the way computer systems and dreams operate, as they are both oblivious to cultural normalities and everyday logic.

How can computers process dreams?

Although the chance operations the computer uses resemble the illogical dream process, the computer cannot understand the context of the dreamer's interpretation. This absence of conventional, logical reasoning, cultural and contextual awareness and non progressive thought processes, of the computer software makes it impossible to analyse dreams in the way that Freudian analysis proposes [10], in which meaning is hyper-associative, with myriad branches of symbolic meaning. Thus, we define the application as one that, both methodologically and procedurally, cannot project general meanings onto the dreams of its dreamers. In contrast, the Dreamhacker application can deal with quantities and categorisations and this is in keeping with contemporary dream theorisation, such as the more recent neurobiological theory proposed by Hobson [11]. This theory is not concerned with meaning, rather it describes 'five cardinal characteristics' of dreams, defined as:

- intense emotions
- illogical content
- apparent sensory impressions,
- uncritical acceptance of dream events
- difficulty in being remembered

Similar to the Dreamhacker, these five characteristics do not make any attempt to interpret content but rather categorise and quantify it. Like Hobson's theoretical model, the Dreamhacker system eschews and, indeed, *reverse engineers* the once normative logic of Dream content interpretation, allowing for a loose epistemic relationship with the mental landscapes of its users.

Reflections on the project

We started the project with the goal to create a visualisation application that would create a network of crowdsourced dream imagery. As we originally intended, the Dreamhacker project does investigate the relationship between technology, culture and imagination, however, we had not expected to reach the conclusion that computers are themselves operating in a kind of dream state. By this we mean that the waking physical and cognitive norms humans take for granted cannot be detected or distinguished by any symbolic logical system, such as a computer. In a paradoxical way, the computer resembles a human dreamer, as defined by Hobson: someone who uncritically accepts illogical events.

Conclusion

To conclude, although dreaming is a widespread human experience the surreality and apparent illogic of our dreams makes it hard to position dreaming within digital structures and computational projects. We have attempted to do so by repurposing Web service protocols and drawing from several theories such as critical design, design fictions, social surrealism and contemporary dream theory. The project exaggerates the idea of the impossibility of accurate visual interpretation of dreams by hacking into the social web of our 'imaginings'. The digital Dreamhacker is a system which, like dreams, is generative of ambiguity; but its ambiguity and randomness is never framed as value-free. Instead, it allows the system to stay open to interpretation [12]. We propose that the Digital Dreamhacker contributes to the tradition of artists and designers working with unconscious imaginative material, encouraging multiple meanings and re-mixing the 'individual' into a social and technological dream grammar.

Find the application link and our latest developments**:**
http://digitaldreamhacker.blogspot.co.uk/

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