Otherworld: Ouija Board as a Resource for Design

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ABSTRACT

The Ouija board is a device to contact spirits from the so-called otherworld. Although it is considered paranormal activity, the way it works rests on ideomotor actions and we argue that the Ouija is a resource for design for the following aspects: It is a 1) *collective tangible exploration tool* operated by two or more people through a physical pointer that moves, seemingly on its own, around the letters to probe meanings by composing messages. It has been used by artists as a medium offering 2) *creative stimulation* to generate material and develop ideas for their work. The Ouija also enables people to express nonconscious knowledge, as research suggests, and thus can provide 3) *access to tacit dimension*. In this paper, we present the *Otherworld Framework* that describes its principal elements and provide speculations on how to exploit them in design for collaborative, engaging and unconventional group interactions.

CCS CONCEPTS

• **Human-centered computing** → **Collaborative and social computing theory, concepts and paradigms**; **Interaction devices**; *Interaction design process and methods*;

KEYWORDS

nonconscious, tacit knowledge, ideomotor, co-design, decision making, paranormal, automatism, wearable, VR, ouija, design research, participatory design, creativity, ideation

1 INTRODUCTION

Throughout history humans have invented numerous mechanisms to contact the supernatural or the so-called otherworld and inquire into the unknown [1, 3, 10, 15]. One of these mechanisms is the Ouija board [1] [3, 5, 19, 25]. The Ouija offers a playful activity in which a group of people engage in a spiritual session and experience the

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[1] Hereafter referred to as the Ouija.

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feeling of a supernatural contact - both collectively and individually. In a Ouija session, two or more participants gather around a board that bears letters and numbers as well as some words such as "Yes, No, and Goodbye" (Figure 1). They keep their index fingers placed on a physical pointer (planchette) that is on the board and ask a series of questions, supposedly directed to a spirit. After each question, the planchette starts moving around, seemingly on its own, and goes from one letter to another. This eventually forms words or sentences as an answer. The answers trigger conversation among participants and thus more questions, which makes the Ouija a social and exploratory experience.

Figure 1: An example of a Ouija board and a planchette (Photo by Paul Tamayo [6])

This experience involves a number of interrelated factors. First of all, it is true that the planchette moves. Although people are free to believe that spirits are responsible for the movement, there is in fact a scientific explanation: *ideomotor actions.* These are subtle bodily movements that individuals tend to perform when they observe, or think of, a motion without feeling a sense of agency [20, 26]. An explanation for this reduced perception of conscious control, which is also defined as automatism, is what [32, p112] calls movement confusion. Underestimating self-generated force adds to this and reinforces the illusion of an external intervention [7].

Likewise, *ambiguity* plays a fundamental role in the Ouija. The question *"Who moves the planchette?"* creates an ambiguous situation (movement confusion) and triggers ideomotor response in participants. Gaver et al. argue that ambiguity is a powerful tool for design and propose three types of ambiguity [18]. *Ambiguity of information* refers to deliberate use of incomplete information. *Ambiguity of context* refers to presenting things in different contexts than originally intended. *Ambiguity of relationship* is about crafting things and spaces to trigger imagination and self-reflection. In the following sections, we describe further how the Ouija benefits from these.

Another factor is *nonconscious knowledge.* According to Gauchou et al., a Ouija-type apparatus can become a means for people to

express what they think they do not know, that is nonconscious contents of thought [17, 23]. Tacit knowledge, defined as the opposite of formalized and explicit knowledge, refers to a similar situation: we know more than we can tell, as Polanyi stated [27]. Transmitting this kind of knowledge is a challenge and the Ouija may offer alternative ways to engage implicit cognition.

Additionally, our research direction is motivated by previous studies that considered paranormal phenomena and magic as a source of inspiration for design research in HCI [12, 13, 24, 30, 31].

In this regard, the Ouija might be a mechanism to explore novel paradigms in collaborative creation and exploration, user experience assessment, and interaction techniques. In this paper, we propose the *Otherworld Framework* based on the Ouija and present three use cases.

2 OUIJA BOARD FOR DESIGN

Here we explain why the Ouija is relevant for design by discussing its salient points.

2.1 Collective Tangible Exploration

The board and the planchette offer a collocated group activity in which people bodily engage with a shared physical pointer to probe meanings and reveal the unknown together. Here it is important to maintain *the ambiguity of context* regarding the origin of action *(Who moves the planchette?)* so that the sense of agency is reduced and each participant feels that a joint activity is in progress. This setting might help prevent dominant members of a group from taking over the discussion and create a more equal relationship. Furthermore, this ambiguity might also enable timid members to influence the planchette movements and participate more actively in group discussions.

2.2 Creative Stimulation

The Ouija can become a medium to generate material and develop ideas for artistic expression. William B. Yeats, Sylvia Plath and James Merrill, among others, used the Ouija as a source of inspiration to write literary works [8, 16, 22]. Ambiguity also plays a role here. Since we do not know exactly which participant moves the planchette, an uncertainty appears: *who answers the questions?* The reduced sense of agency might intensify the effect of this *ambiguity of context.* There is also another question: *what do the answers mean?* This may be considered *ambiguity of information.* Answers given by the board might not always be complete or self-evident which encourages multiple readings of a situation. The meaning is constructed and contextualized in a collective way by the participants' own interpretation.

2.3 Access to Tacit Dimension

The Ouija works as a medium that enables people to express what they know but cannot, for different reasons, always verbalise [17]. It suggests an alternative way of exploiting tacit knowledge. Using the planchette as a probe, participants access their nonconscious and explore a situation as they are jointly shaping it [9]. This recalls using a stick to explore a dark cavern and understanding the surrounding through the probe's impact on our hand [27, p.12-13]. The Ouija offers a reflective conversation in which the situation "talks back" to participants [29, p76-79], engaging their individual or collective

unconscious. This mechanism might facilitate decision making situations in hierarchical organizations and prevent power relations and biases from taking the lead. Instead, experience-based knowledge might become more salient and have a say in group decisions.
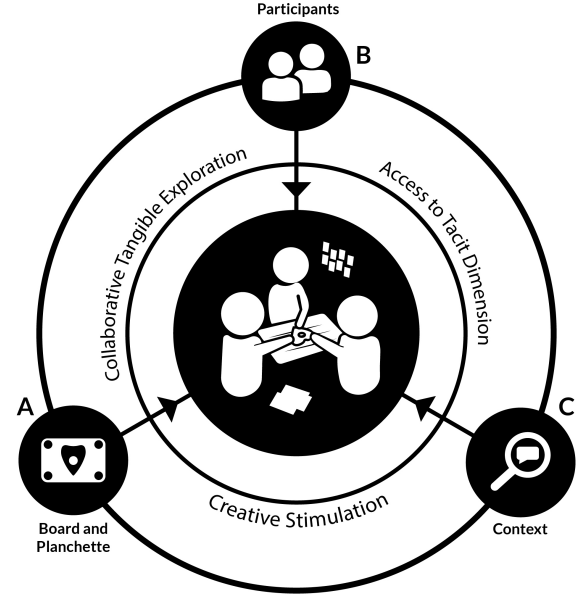

Figure 2: Principal elements (A, B, C) of the Otherworld Framework

3 THE OTHERWORLD FRAMEWORK

We first present our dissection of the Ouija mechanism and describe its principal elements (Figure 2). We discuss below how the Ouija can be repurposed as a means for design exploration by describing how each element can be reconfigured.

3.1 The Board and the Planchette

Ouija boards exist in different forms, including electronic versions [2, 3, 28] (Figure 3). In the *Otherworld Framework*, the modification of the board and the planchette is an important aspect. Boards can be designed in such a way that they include letters, ideas, shapes, sketches, tactile geometry etc. Planchettes can also have various forms depending on the intended actions such as sketching, meaning making or form giving [4]. Possibilities can be expanded by augmenting both objects with interactive technologies such as tangibles in reacTable [21].

3.2 Participants

Another important aspect of the *Otherworld Framework* is the people who connect to "the other side". The participants' backgrounds as well as their number can change the structure of the activity. For instance, a creation activity may be facilitated by a designer while users or developers (and "maybe spirits") may take part as participants from diverse stakeholder groups in this "divine" brainstorming session. The Ouija can also be used by different participants in the same contexts, which would conceivably yield different outcomes.

Figure 3: Different types of Ouija boards [3]. © Museum of Talking Boards, used with permission.

3.3 Context

The context refers to two elements: the *narrative* and the *purpose* of a Ouija session. The *narrative* can be adapted to the topic explored. For example, a narrative in which the spirit of Leonardo da Vinci is summoned can be adapted to an exploration study about flying machines (e.g., drones). The *narrative* also depends on the participants, as their belief in spirituality would influence the way they approach the session (i.e., the planchette is moved by spirits versus by humans) [9]. For participants who are reluctant to take part in activities that might be associated to occult or spirituality, the narrative can also be created around themes such as playfulness and games; similar to the transformation of the Ouija from a divination device into a parlour game [25]. The second element of the context, the *purpose*, instead, refers to the intention of the study, whether it is the exploration of a topic, the creation of an artefact or the evaluation of an idea. This would also affect the design of the Ouija board and the planchette. While a board designed for an evaluation might bear simple words such as yes/no/maybe, an exploration or creation study may require concepts, shapes or letters to engage with.

4 USE CASES

We present below some speculations on how the Ouija and the *Otherworld Framework* can be exploited in HCI.

4.1 Difficult Conversations

(Board with letters and symbols; Participants: Humans - Family caregivers and a facilitator; Context: Exploratory and Evaluative)

Taking care of a loved one with dementia can be challenging and demanding. This makes family caregivers vulnerable to psychological distress [11]. Moreover, they may feel uncomfortable talking about this sensitive topic with others and thus lack social support. A Ouija board can be designed by an expert (e.g., doctor, therapist, designer) to facilitate such difficult conversations. It can bring together the family members of a person with dementia and enable them to share their experiences without feeling exposed or guilty. They can answer the facilitator's questions regarding sensitive topics of dementia-care by navigating through letters or symbols while remaining incognito *(Who moves the planchette?)*. Each member might influence the answers moving the planchette unconsciously and express a concern or raise awareness in others. This might enable

caregivers to identify and discuss the sources of distress as well as the experts to learn from them. Designers can use this method to have more insightful feedback from stakeholders in designing for taboo topics as well as in evaluating concepts through different stages.

4.2 Product Ideation

(Augmented board design that creates traces; Participants: Human - Designers; Context: Exploratory and Creative)

Three designers brainstorm on the design of a wearable device that will be used in Virtual Reality (VR) by working with a Ouija board that allows them to move around the depicted body parts and zoom on them to collaboratively sketch the form of the device. One of them asks the board "Which 'body part' would be the most 'functional'?" Questions may vary according to purpose. The cursor moves around the screen and stops on the shoulder. The Ouija zooms to shoulder. The other designers ask "What would this shoulder wearable look like?" The cursor starts moving again by leaving traces on the screen, eventually suggesting an ambiguous shape. The Ouija enables a collaboratively created base for facilitating further discussion, either during the same session or in a follow-up after producing new knowledge with the information obtained. Here, the context is known to a certain extent as the designers are creating a wearable for VR. Yet, they do not know what the collaborative sketch means or promises. This ambiguity of information might trigger their imagination to generate new ideas [14, p173-174].

4.3 Scenario Planning

(Board reflecting visualisations of AI predictions; Participants: Human - Operators, Non-human - AI; Context: Exploratory and Evaluative)

Three operators work in the control room of a partially autonomous warehouse. They are standing around a Ouija board where an assistive AI visualises its predictions of delivery performance. They place their fingers on the physical pointer (planchette) to start navigating the visualisation and explore possible scenarios. In this case, the planchette becomes a tangible contact between the AI and its colleagues; while diverse tactile feedback may convey the uncertainty levels of AI predictions, ideomotor responses from the operators might provide directions of their thought as input for the AI [32, p123]. As the Ouija enables access to nonconscious knowledge, operators may also use the planchette to reinforce their educated guess, if needed. When power relations between operators mislead discussions, the Ouija may play an equalizing role as it enables them to involve bodily senses as an alternative way to assess situations. This might enable a more participatory and informed discussion as it encourages collective decision making and each participant is a potential influencer in the process.

5 CONCLUSION

In this paper, we presented the *Otherworld Framework* to explain how the Ouija board can be used as a resource in designing for exploration, ideation, and evaluation. We defined what the Ouija offers for design *(collective tangible exploration, creative stimulation and access to tacit knowledge)* and how these can be facilitated by modifying three elements *(board and planchette, participants, context)*. Our study embodies limitations inherent to speculative studies, meaning that the components and actions defined here may differ in the realization

process. However, we believe our paper provides a ground to initiate a discussion about such a method, which introduces people with less domain knowledge (e.g., users, managers) to the role of ambiguity in design in a playful and engaging way. It also offers to more experienced stakeholders (e.g., design researchers, practitioners) new embodied and tangible ways to explore, ideate and create.

6 ACKNOWLEDGEMENTS

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