

# “The Mad Hatter’s Dinner Party”: Enhancing the Dining Experience Through the Use of Game Thinking

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## ABSTRACT

Gastronomy is a creative discipline in which all senses play an important role. Research on flavor perception in multi-sensory experiences is discussed, as well as examples of gastronomic proposals in which multi-sensory inputs are paired with food. Game thinking is suggested as a source of relevant knowledge in the attempt to build multi-sensory gastronomic experiences. An experiment is presented, analyzed and discussed.

## Author Keywords

Gastronomy, Interaction Design, Game Design, Food Design, Storytelling, Creativity.

## ACM Classification Keywords

H.5.m. Information interfaces and presentation (e.g., HCI): Miscellaneous.

## INTRODUCTION

Gastronomy could be considered one of the most complex artistic expressions [1, 16]. The eating experience is a sum of multi-sensory impulses [15], where taste is not the only sense involved. The ideal of such holistic experience has been approached from various disciplines. Richard Wagner, for example, coined the concept of *Gesamtkunstwerk*, consisting in the delivery of experiences that embrace most of the existing forms of art, including cuisine [16].

The scientific community has been investigating gastronomy’s experiential value for a long time. Authors such as Charles Spence and Betina Piqueras-Fiszerman [15], or Janice Wang [17] investigate how the components of an eating experience -whether intrinsic or extrinsic to food itself- affect the diners’ perception, while others like Gordon M. Shepherd [14] study of the neurobiological factors related to food perception.

Gastronomy is also a field of interest for many creative practitioners. Francesca Zampollo [18, 19, 20], designer and co-founder of the International Food Design Society, has been researching the implementation of design thinking in the food design process. From a rather commercial point of view we can encounter alternative dining experiences

too, such as storytelling dinners, and themed restaurants.

In a similar manner, contemporary *haute cuisine* chefs such as Ferran Adrià, Heston Blumenthal or the brothers Roca [1, 15] are also experimenting with the idea of cuisine as a multidisciplinary artistic form. An example of this is El Celler de Can Roca’s *El Somni*<sup>1</sup> [1], a multi-sensory dining proposal in which diners are presented with with a strong storytelling and audiovisual experience.

One way or another, these proposals tend to present the diners with a rather contemplative experience in which their only role is to eat and contemplate [3]. While this is not necessarily wrong, we suggest that for us to build a truly holistic dining experience diners should be put at the very center of the experience. They should be treated as protagonists, and therefore they should be not only allowed but even encouraged to interact - both with the food, with the environment and with each other. We should not forget that socialization and eating are two of the most essential human motivators [12], and they are inherently interrelated. Considering social contact as a big part of a dining experience seems to be mandatory [17].

By encouraging diners to adopt such interactive role our only aim is to bind the moments where they eat with the ones where they are affected by other stimuli. For us to design meaningful interactions, we propose to use a game thinking approach [3]. Since games are very good at motivating and engaging users in a pleasant way [13], their core fundamentals might provide us with valuable knowledge on how to trigger such pleasant experiences [2].

We suggest that by using game thinking during the food design process we would be able to generate what game designers call a *magic circle* [5]. By binding together all the multi sensory contents of the dining experience through gameful mechanics, we might achieve a greater level of immersion that would result in a better perception of the whole experience, including the taste itself [3].

The implementation of molecular gastronomy techniques revolutionized gastronomy as a creative discipline [11]. We

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<sup>1</sup> Hyperlink: <http://www.elsomni.com>

suggest that further evolutions in the field of food design should focus on the creation of meaningful interactions that would bind together different multi-sensory inputs diners are presented with and that game thinking would provide us with the knowledge to do so [3, 17].

### THE MAD HATTER'S DINNER PARTY

Building on top of this hypothesis, we conducted a first experiment of a playful dining themed after Lewis Carroll's [4] 'Alice in Wonderland'<sup>2</sup>. During two weeks and a half, we conceptualized, designed, built, and executed a whole dining experience. In 'The Mad Hatter's Dinner Party'<sup>3</sup>, diners would be immersed into the magic of Wonderland.



Figure 1. A moment of 'The Mad Hatter's Dinner Party'.

#### Game Design

The design process of 'The Mad Hatter's Dinner Party' started by deciding which kind of playful experience we wanted to trigger in our diners. Based on Marc LeBlanc's *8 kinds of fun* [6, 10], we thought that *fellowship*, *narrative*, *fantasy*, *discovery*, *sensation*, and *challenge* should be the core pleasures the experience would deliver. In order to trigger those pleasures, we designed a set of gameful mechanics including *roleplaying*, *objects with superpowers*, *time constraints*, *pattern recognition*, *collaboration*, *competition* and a *reward system* [2]. By binding those mechanics well with the story, the audiovisuals and, most importantly, the food, we would build a *magic circle* that would help us deliver an experience in which play would not be perceived as something detached from eating itself.

#### Storytelling

A big part in building a *Magic Circle* [5] relies on having a compelling story. Based on the chosen gameful mechanics we designed a seven acts storyline, combining intense moments with periods where diners could relax. Four diners were welcomed at the entrance and turned into members of 'The Mad Hatter's Dinner Party' by asking them to pick a hat (Figure 2a). They were told that one of them was an infiltrated queen. Next, they were given a *magic potion* (Act 1) and a hat with a card code (e.g. two of hearts).

<sup>2</sup> Tim Burton's (<http://www.imdb.com/title/tt1014759>) and Disney's (<http://www.imdb.com/title/tt0043274>) versions were also considered.

<sup>3</sup> A video of the dinner can be found on: <https://vimeo.com/154080119>

Whoever tasted a sweet potion would secretly become the queen, while the others -who tasted it sour- would have to guess who the queen was along the dinner.

After the *magic potion*, a servant walked the diners into the room of Wonderland. There, the food and a waiter acting the role of the Mad Hatter was waiting for them. Once inside, each of them would be given an edible *card* (Figure 2b) (Act 2) related to the card code on their hats, followed by an object with a magic superpower:

- A broken cup, to get a magic teapot to serve tea
- A monocular lens, to read hints in the forest (Figure 2c)
- A map, to find the way into the labyrinth (Figure 2d)
- A knife, to kill the dragon (Figure 2e)

After handing out the objects, the diners were presented with a *magic forest* (Figure 2c) (Act 3) they had to eat in order to find a hint towards guessing who the queen was. Afterwards, the diners had to enter the *labyrinth* (Figure 2d) (Act 4) in order to collect as much food as possible without running out of time. Once the labyrinth was unlocked, diners killed and ate the *dragon* (Figure 2e) (Act 5), which was rewarded with four drops of *dragon blood* (Figure 2f) (Act 6) as a proof of eternal gratitude. The queen was given a very spicy drop, and this would be the last clue for the others to unveil the mystery. After that, everything would be removed from the table, so that the Mad Hatter could remove the tablecloth. The *moment of truth* (Figure 2g) (Act 7) had come, and the diners discovered a golden treasure shaped cake locked inside a box. For them to get a key to open it, the mystery of the queen had to be solved. Once the cake was eaten, the experience would reach its end. It would be time to go back to the real world.

#### Food

A piece of food was prepared for each act. Both in terms of aesthetics and interaction, the seven dishes were designed in order to support the narrative scenario they represented – without forgetting about pure gastronomic issues such as taste combinations. The dishes consisted of:

- Act 1 (*The Potion*): four shots of lime and mint juice (mango for the sweet one) with green colorant (Figure 2a).
- Act 2 (*The Cards*): four crackers with roasted seeds decorated like cards using cream cheese (Figure 2b).
- Act 3 (*The Magic Forest*): salad with colored mushrooms and strawberry vinaigrette, over a earth-looking made out of nuts, bread, Parmesan and black colorant (Figure 2c).
- Act 4 (*The Labyrinth*): bread with two dips (Figure 2d).
- Act 5 (*The Dragon*): fried turkey breast dressed with red berries sauce, together with mashed potato (Figure 2e).
- Act 6 (*The Dragon Blood*): four spherifications of Bloody Mary, one of which noticeably spicy (Figure 2f).

· Act 7 (*The Moment of Truth*): chocolate cake painted with golden colorant, with golden chocolate coins (Figure 2g).



Figure 2. The 7 dishes at 'The Mad Hatter's dinner party': a) The four potions and their hats, b) The four edible cards based on crackers, c) The magic forest salad, d) The labyrinth with bread and dip rewards, e) The turkey symbolizing a dragon to be killed with the knife, f) The spherification of dragon blood, and g) The cake treasure for The Moment of Truth.

### Motion Graphics

A separate set of audiovisual effects was created for each act of the dinner. Each set was then projected overhead onto the table and the dishes. The aim was to facilitate a memorable experience that diners would remember (e.g. killing the dragon) by binding smoothly the *foreground* and the *background* [7] elements that played a role in the dinner. In order to engage and delight diners, our design focus was on visceral design aspects - the animations guided the diners along their journey while reacting to their actions, enhancing the emotional ups and downs triggered by the gameful mechanics - facilitating a memorable experience that diners would remember (e.g. killing the dragon).

### Infrastructure

For us to build the infrastructure for the dinner in less than three weeks without failing to deliver a memorable experience, fast prototyping methods were used. A table - with a rectangular hole in the middle to fit a box for the queen's treasure- and six boxes -the plates- were built out of MDF and acrylic, and later covered with white plastic paint. Due to hygienic considerations, the top part of the dishes was built out of acrylic so that food would not be in contact with either wood or paint. The box for the teapot was the most complex element. An electronic circuit based on an RFID sensor and a water pump was built in order to get the teapot to only release tea when the broken cup was placed next to it.

### Post-dramatic Performance

Many elements had to play together in the overall experience. In order to get the gameful mechanics to bind together all those elements, a waiter incarnating the Mad Hatter was used. His role was to be the sticky glue that would combine the different elements and guide the diners through the story. The Mad Hatter was helped by a servant with a neutral role. During the dinner, the waiter would adjust his performance depending on how well the elements and the atmosphere were playing together in order to make sure that the magic circle would not be broken. Therefore, a post-dramatic performance approach was used, presenting an actor that would improvise in his role depending on the real-time events that would occur during the dining experience.



Figure 3. The Mad Hatter and the servant.

### FINDINGS AND FUTURE DIRECTIONS

Once the dinner concluded, the four diners were asked to share their impressions about the experience. The *Playful Experiences* cards [8] were used to help the diners translate their experience into words<sup>4</sup>.

<sup>4</sup> The cards the diners chose are: fantasy, challenge, subversion, humor, discovery, exploration, sensation, relaxation, captivation, thrill, fellowship, and suffering.

During the conversation it became clear that our most important goal was accomplished: the diners agreed that they perceived the dinner as a coherent experience in which eating and playing were actually the same. A participant mentioned that while he came with a clear agenda of eating -he was starving, he recognized- he soon forgot about it and got immersed into the story. Another diner pointed out that she hadn't felt "*such immersion into a fantastic world since childhood*". Both examples illustrate that the *magic circle* was never broken. Through the use of gameful mechanics that encouraged diners to interact with the food, the context, and between themselves, the perception of immersion increased dramatically.



**Figure 4.** Two diners looking for a clue under the forest.

One of the diners also mentioned that he would "*bet the food wouldn't have tasted that good if it weren't for the whole experience*". This is a very relevant point, as we suggest that gameful mechanics might not only have an impact on the perception of the gastronomic experience as a whole but also on the taste perception itself. Although we did not design this experiment to test this hypothesis, further experiments could explore this. Apart from that, further experiments on this area could explore the creation of similar proposals triggered by different motivators from frameworks like LeBlanc's *8 kinds of fun* [6], Reiss' *16 Basic Desires* [12] or Lucero et al's *PLEX Framework* [9].

## CONCLUSION

In the attempt to build immersive gastronomic proposals in which multi sensory elements are combined in order to enhance and improve the diners' experience, the use of game thinking might be particularly relevant. By implementing gameful mechanics we can empower diners to interact both with the food, with the environment, and especially with themselves.

'The Mad Hatter's Dinner Party' was a successful experiment in the sense that it conveyed a coherent immersive experience. It presented diners with a *magic circle* in which eating, playing, watching, hearing, touching, and even talking were perceived as a whole. Therefore, we

suggest that further experimentation in this area might be of great relevance for researchers, designers, and practitioners in the field of gastronomy and all its related disciplines.

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