

A New Reality for Customers?

Understanding the Impact of Aspects of Alternate Reality Games
on the Valence of Customer Experience

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Abstract

Gamification has gained increasing traction within the realm of customer experience due to its benefits in captivating and motivating people. While video games have developed new engaging game genres, such as alternate reality games, we have little knowledge on how elements of these new games can be used within gamification and their influence on the customer experience. In response, this paper addresses how the aspects of ARGs impact the valence of CX. Of the underlying aspects of ARGs, “pervasive gaming”, “communities”, “stories in pieces”, and “interactivity” were shown to impact the valence of any customer experience positively, while pretending “this is not a game” has a negative impact. This study contributes to CX research by revealing the relationship between the aspects of ARGs and their impact on CX valence and supporting previous findings. Additionally, this paper establishes a new avenue within ARG research, focusing less on ARGs as a whole and more on the underlying aspects. Finally, this study develops a roadmap for companies and managers aiming to use these aspects effectively while avoiding dangers and ethical issues. These findings strongly support the implementation of a customer-centric marketing approach, using agile project management practices, and focusing on a clear and honest brand image.

Keywords: Gamification, Customer Experience, Alternate Reality Games, Valence

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List of Abbreviations

Abbreviation	Meaning
ARG	Alternate Reality Game
CX	Customer Experience
CXM	Customer Experience Management
CJ	Customer Journey
GPS	Global Positioning System
HTML	Hypertext Markup Language
ILB	I love bees, an ARG promoting the video game Halo
MDE	Mechanics, Dynamics, and Emotions
OCEAN	Openness to Experience, Conscientiousness, Extraversion, Agreeableness, and Neuroticism
TCQ	Touchpoints, Context, and Qualities
TINAG	This Is Not A Game
QR-Code	Quick Response Code

1 Introduction

Imagine for a minute, you—the reader—want to buy a product. Initially, you come across the product online, but you scroll past it without much thought. On the following day, you open a new website and encounter another advertisement for this product. As you view this ad again, you realize that you have an unresolved problem, that the product promises to solve while matching your aesthetic preferences. With your interest piqued, you visit the product's website. On the website, you encounter a wide offering of additional products. However, as you want to scroll down, a pop-up opens prompting you for your e-mail address in exchange for a discount on your first order. After you close the pop, you try to find the exact product you were looking for. Finally, you read the description of the product and realize, you need a firsthand experience before you decide. You navigate the website to find the stores. Unfortunately, the closest store is a 45-minute drive away, but reluctantly, you still go. As you enter the store, all the products are shown on the shelves and it does not take long for you to find the product you saw online. After a short test, you notice a few points of concern. Despite these issues appearing early on, you dismiss them as they do not interfere with the use of the product. Therefore, you decide to purchase the product.

If this sounds familiar to you, you are not alone, as the ways in which customers interact with companies, both on- and offline, are specifically designed (McKinsey & Company, 2022). The idea of customer experience (CX) was first developed by Abbott (1955, p. 40). After this first idea, companies used CX more extensively (Fahy & Jobber, 2019). Here, companies actively consider the customers emotions when purchasing products (Filser, 2002; Verhoef et al., 2009; Zaleskiewicz & Traczyk, 2020). CX is mainly defined by touchpoints, context, and qualities (Keyser et al., 2020). The aim is to increase customers' loyalty with a company which subsequently leads to more sales (Lin & Bowman, 2022). Identifying pain points customers may have can improve the relationship between these two further (Gahler et al., 2022). Counteracting these points leads to happier customers and higher customer retention (Gibbons, 2021).

However, companies wanted to find new ways to engage customers (Maklan et al., 2008). Video games started to be developed with the user's emotions and their experience in mind (Ferrara, 2011). These concepts were simple, yet resulted in controlled reactions and enjoyment from the players (Lee, 2020; Schell, 2019). These reactions were found to have scientific merit (Farnsworth, 2020). Because of this, they were used for more than just video games (Neill, 2013). This use of "game-like elements to make nongame tasks more interesting" (Vesa & Harviainen, 2019, p. 1) is called gamification. These elements include points, badges, leaderboards, but also levels, rewards, and virtual currencies (Ciuchita et al., 2023). Gamification builds on the psychology of motivation (Korn et al., 2022; Robson et al., 2015; Yohannis et al., 2014). Nowadays, several design aspects are typically associated with gamification (Flatla et al., 2011; Hakulinen et al., 2013; Korn et al., 2022).

As video games develop and change, the way players interact with these games change as well (Caroux et al., 2015; Wirtz, 2023). Video games changed from solely being digital adventures to video games also taking place in the real world (ARGology, 2010; Whitton et al., 2014). These games are now known as Alternative Reality Games (ARGs) (ARGology, 2010). ARGs usually combine physical aspects, such as location-based puzzles, hidden objects or codes, or specific events in an area, with digital games either on a PC or a mobile phone while connecting players through online communities (ARGology, 2010; Wikipedia, 2023).

Current research in the field of gamification focuses on innovating aspects of the customer journey or CX (Rodrigues et al., 2021; Shahid & Arshad, 2021; e. g. J. H. O. Silva et al., 2023). Other research focuses on the understanding of gamification and other CX-related concepts (e. g. Berger et al., 2018; Vesa & Harviainen, 2019). However, in the case of ARGs and how they are used in marketing and gamification, there seems to be a gap in research as there is no knowledge on the impact of ARGs on CX. It is important to fill this gap for both research and practice. For the theory, the knowledge of the impact of ARGs on CX is important as it could open new research opportunities and add to the insights into ARGs (Bonsignore et al., 2014; Janes, 2013). In practice, this knowledge could help provide companies and marketing agencies with new tools to attract and engage customers. This could in turn lead to more sales, happier customers and a strengthened business-customer-relationship.

This paper aims to combine research on ARGs and CX by understanding the benefits that utilizing aspects of ARGs can bring to CX and the effects these have on customer relationship.

Following this, the main research question is:

(1) *How does the use of aspects of Alternate Reality Games impact CX valence?*

In addition, a sub-research question can be asked:

(2) *How can companies successfully overcome challenges and avoid dangers associated with these aspects while ensuring ethical use?*

This paper focuses on the impact of ARGs on CX valence because this approach helps lay a foundation that can be explored later. This way, it offers a more detailed view on ARGs and their impact.

This study performed for this paper employs an explorative qualitative approach to answer this question. It uses in-depth interviews (Rutledge & Hogg, 2020) to gain insights into the impact of aspects of ARGs on CX. The literature research before the interviews provided a solid understanding of shared commonalities between ARGs. This is done, because ARGs are very subjective and case-related (ARGology, 2010). Additionally, an understanding of CX and Gamification helped provide insights for discussions during the interviews. During the interviews, 14 experts shared their knowledge and opinions on the topic of ARGs in CX. This research provides a deeper understanding of the complex nature of ARGs and their impact on CX valence.

Previous research performed by others on ARGs focuses mainly on educational uses (Otero & Sánchez, 2015; Whitton et al., 2014) or marketing without a focus on CX valence (Janes, 2015; Wojciechowski & Zdenko, 2017). This paper adds to the current research discourse by exploring the use of ARGs with a focus on CX valence.

In addition, businesses currently use gamification to reach and retain customers (Drenik, 2023; García-Magro et al., 2023). Others use gamification as a way to educate employees on the job (Goi, 2022; Wang et al., 2022). This paper contributes to the research of gamification by showing how the use of ARGs within gamification can impact the valence of CX.

Furthermore, this paper provides guidelines on how companies can use these aspects within their CXM strategies effectively. This is then linked with insights into the challenges that can arise when using these ARGs, insights into the responses of companies towards these challenges and lastly the

positive impact on companies' CXM strategies on the highest level. With these insights, businesses can decide if and to what extent they want to use ARGs in their campaigns and CX.

This paper is structured into four sections: First, *Theory* will cover research and theories on CX, Gamification, and ARGs. Following this, *Methodology* will outline how data for this study was collected and analyzed. Next, the *Findings* of this study are presented. Finally, the last section includes a *Discussion*, the contributions to theory and practical implications. Furthermore, *Limitations* of this research and opportunities for future research are discussed.

2 Theory

2.1 Customer Experience

CX is a term used more and more in recent marketing news (Jay, 2023). The concept of CX was first developed by Kotler (1967) and Howard & Sheth (1969) through their theories on marketing and consumer behavior. CX has developed for over a decade (Almada & Rosaaen, 2021; Buchanan & Gillies, 1990; Dawkins & Reichheld, 1990; Lemon & Verhoef, 2016; Newport, 2010; Shah et al., 2006; White, 2022). The most recent developments recognize the role of the customers in the customer journey (CJ) and their power to help with this creation (Lemon & Verhoef, 2016). However, current research is unclear on a definite definition of CX. One paper defines it as “the subjective feeling that stays after the user purchases a product or service, aiming to manage the processes of experiences as perceived by customers in their relationship with the brands” (Ertemel et al., 2021, p. 3), while other research defines it as “a customer’s subjective, directed, and multidimensional mental responses to an interaction with an experience partner at a touchpoint in a customer journey stage” (Gahler et al., 2022, p. 194). These so-called “touch points” make up the CJ (Lemon & Verhoef, 2016, p. 74). They are points in time and space where customers and brands interact, and can be allocated to the different stages of purchase (Gahler et al., 2022). Because of these touch points, CX is inherently linked to an interaction between the customer and the company (Gahler et al., 2022; Petermans & Cleempoel, 2013). This is supported by CX research and a steady emergence of brand engagement between the customers and the company (Högberg et al., 2019). Furthermore, the use of CX is found to be essential to a competitive advantage in a market (Gahler et al., 2022). In addition to service-based industries, CX can also be found within product-based businesses (Ertemel et al., 2021).

There are different CX frameworks. This paper will only look at four frameworks that fall within the scope of this research. The first is a framework for CX projects and looks at the project cycle (E. C. D. Silva, 2021). In this research, the CX project is divided into five stages: “learning”, “creating”, “testing”, “learning again”, and “scaling” (E. C. D. Silva, 2021, p. 25). These stages comprise the cyclical project development and deployment (E. C. D. Silva, 2021) and are similar to the agile project management (Longmuß et al., 2021). While these stages are sufficient to describe the development of a CX project, they do not elaborate on the deeper dimensions of CX. Another paper proposes an “experience web” (Petermans & Cleempoel, 2013, p. 4). This web consists of a total of 20 CX dimensions, but is only intended for the use in retail (Petermans & Cleempoel, 2013). Becker & Jaakkola (2020) proposed a framework unifying concepts from literature to create a single framework for CX. This framework consists of five different parts (Becker & Jaakkola, 2020, p. 638). First are the stimuli evoked by the company’s offerings. These influence the actual experience and the customer’s

responses, which then lead to the outcomes such as perceived quality (Becker & Jaakkola, 2020, p. 638). These three steps are influenced by the role of the firm and contingencies (Becker & Jaakkola, 2020, p. 638). While this framework offers a good look at CX overall, it does not offer much detail on what influences the actual experience of the customers.

These frameworks, and therefore their understanding of CX, can range from the use in specific sectors of the market (e. g. Petermans & Cleempoel, 2013) to how CX should be designed (e. g. E. C. D. Silva, 2021). As CX research is on-going and ever-changing, Keyser et al. (2020) created the TCQ nomenclature in an attempt to combine previous research and its findings to allow “firms and scholars to discuss, assess, and manage CX in a clear and concise manner.” (p. 437) Therefore, it is important to take a closer look at it before coming to a conclusion on CX.

2.1.1 Understanding CX: Touchpoints, Context, Qualities

As shown above, CX is made up of several aspects that each contribute to an understanding of this concept. As this paper is interested in understanding the aspects that influence CX, it focuses on the three elements outlined in the TCQ-nomenclature by Keyser et al. (2020). This nomenclature defines CX based on touchpoint, context, and qualities. To understand what each of these elements means exactly, this paper will take a more generalist approach to describe them.

Touchpoints are interactions between the customer and the brand which serve a purpose, such as gathering information, paying, unpacking the product, or even using the product or service (Lemon & Verhoef, 2016). These touchpoints are essential for CX, as without an interaction, CX cannot happen (Hoffman & Novak, 2018). But touchpoints are not the same, as their nature, control and position within the CJ differ (Keyser et al., 2020). The nature of touchpoints can either be human (e. g. staff), digital (e. g. online or at a machine), or physical (e. g. in stores) (Hui & Bateson, 1991; Schouten et al., 2007). These touchpoints can happen at different stages in the CJ (Kranzbühler et al., 2018; Verhoef et al., 2009).

The pre-purchasing stage encompasses all activities up to the purchasing decision (Keyser et al., 2020). The customer recognizes a need, informs themselves and decides whether or not to purchase the product or service (Keyser et al., 2020). Then, ordering, paying, and picking up the order or delivery make up the purchasing stage (Lemon & Verhoef, 2016). Lastly, the post-purchasing stage encompasses the actual use or consumption (Schouten et al., 2007) and maybe the product-return (Lemon & Verhoef, 2016).

Touchpoints are either controlled by the firm itself or through other entities (Keyser et al., 2020). In the case that the touchpoint is controlled by the firm, they specifically design the interaction (Verhoef et al., 2009). Non-firm controlled touchpoints are usually controlled by customers, influencers or other partners (Kranzbühler et al., 2019; Lemon & Verhoef, 2016).

These touchpoints always happen in **contexts** (Thompson et al., 1989). This means, a person is limited in what resources they have access to at a point in time (Bettencourt et al., 2014), which in turn drives the subjectivity of CX (Sandström et al., 2008). In their research, Keyser et al. (2020) explore four types of contexts.

It starts with the individual context (Keyser et al., 2020). Here, literature points towards the customer acting subjectively and informed by a logic shaped through customer-brand interactions (Helkkula, 2011). Emotions play an important role in the individual context as they can influence the openness

of customers towards new offerings (Keyser et al., 2015; Puccinelli et al., 2009). Other factors, such as system of thinking, judgments (Akaka et al., 2015), or physical and economic factors affect consumption choices as well (Keyser et al., 2015).

The social context expands the understanding of the individual context by considering social norms and rules (Verhoef et al., 2009). Customers are surrounded by people and groups, e. g. communities or families, where they take on different roles and face changing behavioral expectations that influence CX (Keyser et al., 2015). Social groups often come with rules of conduct (Åkesson et al., 2014) which have a strong influence on the behavior and ways of thinking of customers (Carù & Cova, 2015). One step above the social context is the market context (Keyser et al., 2020). The market context describes the conditions created by competitors, substitutes, and other challengers to a brand. These actors can influence experiences with a chosen firm.

Lastly, the environmental context combines several factors outside the influence of one person. Natural factors refers to weather or temperature (Lemon & Verhoef, 2016). Economic factors, such as income, gas prices, or the state of the overall economy, can impact a customer's brand preference (Keyser et al., 2020). Public factors, e. g. road infrastructure, have a similar importance (McColl-Kennedy et al., 2012). Even political factors can influence spending habits of customers (Lemon & Verhoef, 2016).

Finally, CX is defined by **qualities** (Keyser et al., 2020). Five qualities describe how and how much the customer responds and reacts to any brand interactions (Keyser et al., 2015). Firstly, the *participation level* describes how active a customer responds to stimuli (Carù & Cova, 2015; Pine & Gilmore, 1998). Some experiences require a high participation, such as personalizing a shoe, while others require little involvement, such as listening to a concert (Keyser et al., 2020). In CX, this participation is not black and white, but falls along a spectrum (Pine & Gilmore, 1998).

Secondly, *dimensionality* describes how complex a customer reacts to an experience (Lemon & Verhoef, 2016). The scientific consensus agrees that there are five major responses: cognitive, emotional (Thompson et al., 1989), sensory/physical, social/relational, and behavioral/pragmatic (Schmitt, 1999).

The next quality is time. Experiences generally take time (Petermans & Cleempoel, 2013). However, the way a customer experiences the time it takes, differs from customer to customer (Kranzbühler et al., 2018). This so-called "*timeflow*" (Keyser et al., 2020, p. 442) is situated on a spectrum from short to long experiences (Keyser et al., 2020). The dynamic of the experience is of importance as well, e. g. a smooth train ride feels shorter than one with many disruptions (Chandler & Lusch, 2015).

Often times, a train ride with disruptions will lead customers to react negatively, while a smooth ride can lead to positive responses. This quality is called the "*valence of an experience*" (Keyser et al., 2020, p. 442). Because of its importance to this research, valence will be discussed more thoroughly in the following section.

For the last quality, "*ordinariness*" (Keyser et al., 2020, p. 442), research points towards a spectrum which describes if an experience is common or uncommon to the customer (Becker & Jaakkola, 2020). Experiences that can be considered extraordinary do not happen in the day-to-day life (e. g. skydiving). These experiences are actively sought out (Scott et al., 2017) and are often memorable and unforgettable (LaTour & Carbone, 2014).

2.1.2 Valence in Customer Experience

Valence is commonly known from chemistry (i. e. “valence electrons” (Colombetti, 2005, p. 104)), however, it is also found in psychology—emotion theory to be exact (Charland, 2005; Colombetti, 2005). Here, research suggests that valence is an integral part of emotions (Barrett, 2006; Charland, 2005), with arousal being the other (Caruelle et al., 2024). Arousal describes “the intensity of the emotional state, whereas valence describes how positive or negative the emotional state is.” (Caruelle et al., 2024, p. 3)

However, valence is not only found within psychology. Because both emotions and CX possess a dynamic nature, valence gained more and more recognition over the past decades within CX research (Keyser et al., 2015, 2020). Within this field of research, valence has been studied in several different contexts. These contexts range from emotional responses to service encounters (cf. Brady et al., 2006) over brand experiences (cf. Brakus et al., 2009) and experience marketing (cf. Schmitt, 2010) to consumer engagement (cf. Heinonen, 2018) and CJ (Gahler et al., 2022; cf. Lemon & Verhoef, 2016). Within each context, research found direct connections between the valence of the experience and the emotional response of the customers (e. g. Baxendale et al., 2015; Petermans & Cleempoel, 2013; Schmitt et al., 2015). This means, positive valence leads to more enjoyable experiences with the brand. Kuppelwieser et al. (2022) even outline that positive valences of experiences can lead to more positive word-of-mouth-responses from customers. Other research in this field was conducted, but is outside of the scope of this paper (e. g. Verhulst et al., 2020).

The character of valence is important to understand, as well. In early research, valence was believed to be “either positive or negative” (Vazard, 2022, p. 5). However, valence is not binary, but can be seen as a spectrum (Brakus et al., 2009; Vazard, 2022). This means experiences can be perceived not only as positive or negative, but also as slightly negative, mostly positive, or neutral. Schmitt (2010) further demonstrates that certain experiences can be both positive and negative (e. g. watching a horror movie). It is important to know that experiences can be perceived as positive and negative at the same time. However, further discussion of this is outside of the scope of this paper. Valence in experiences is not associated with the end result. Within services the “outcome of the experience” (Brady et al., 2006, p. 85) can become the valence of the whole experience. At the same time, Brady et al. (2006) highlight that negative valence does not equal a service failure. “Service failures generally result from poor service” (Brady et al., 2006, p. 85). Even with negative valence, a service can still be of high quality.

In conclusion, CX is a very complex concept developed over several decades. Many researchers developed frameworks to help understand and work with CX, examining CX in different contexts and on different levels. While there are several definitions, as shown above, this paper would like to classify CX as the following:

CX is the subjective, multidimensional response of customers to an encounter with a brand. This encounter takes place at touchpoints in specific contexts. The response to an encounter is influenced by qualities.

In the research presented in this paper, a special focus is put on valence.

2.2 Gamification

Because CX relies on aspects that also appear in video games, such as emotions, immersion, environments, and others (Caroux et al., 2015; Schell, 2019), researchers examine the connection between engagement and video game aspects from 2011 on (Ciuchita et al., 2023; Deterding et al., 2011; Trinidad et al., 2021). This field of study is known as gamification. Gamification can be defined in different ways (see Yohannis et al. (2014), p. 285). However, research seems to favor the definition as “the application of game-design principles in order to change behaviors in non-game situations” (Robson et al., 2015, p. 411).

2.2.1 Fundamentals of gamification

Game design, and subsequently gamification is based on three main psychological aspects (Korn et al., 2022; Robson et al., 2015; Yohannis et al., 2014). The first is motivation and the aim is to enhance or retain the motivation in an individual (Korn et al., 2022; Yohannis et al., 2014). Here, motivation can be intrinsic, coming from within, or extrinsic, external influences (Basten, 2022; Yohannis et al., 2014). Gamification mainly focuses on improving the intrinsic motivation (Korn & Tietz, 2017; Sailer et al., 2013). Next to motivation, flow plays an important role (Basten, 2022; Farnsworth, 2020; Korn et al., 2022). Flow characterizes the feeling of focus on or immersion in an activity (Basten, 2022; Korn et al., 2022). This feeling emerges when the player’s skill matches the challenge they encounter. If the skill is larger than the challenge, the player feels boredom (Korn et al., 2022). However, when the challenge outweighs the skill, the player can feel stress or is overloaded (Basten, 2022; Korn et al., 2022). The goal of gamification is to challenge the player according to their skills to help them get into the flow more easily (Korn et al., 2022). The last fundamental of gamification is the personality trait of the individual (Korn & Tietz, 2017; Rothmann & Coetzer, 2003). The so-called “‘big five’ personality dimensions” (Rothmann & Coetzer, 2003, p. 69) are aimed at describing how a person’s personality is comprised. The big five dimensions are abbreviated as OCEAN, for the first letters of each dimension (Basten, 2022). These traits are “Openness to Experience”, “Conscientiousness”, “Extraversion”, “Agreeableness”, and “Neuroticism” (Rothmann & Coetzer, 2003, p. 69). While it is important to understand how these dimensions affect gamification, a detailed explanation is outside of the scope of this paper. Based on the changes in these dimensions, the player is more or less motivated by gamified aspects.

2.2.2 Aspects of gamification

Building on these fundamentals, there are several aspects that shape gamification (Hamari et al., 2014; Korn et al., 2022). Hamari et al. (2014) found several common aspects found in several papers. Firstly, gamification employs points (Cheong et al., 2013; Eickhoff et al., 2012; Farzan et al., n.d.; Hamari et al., 2013). Points visualize success and progress in an uncomplicated way (Korn et al., 2022). Another aspect related to points is levels (Farzan et al., n.d.; Hamari et al., 2013; Korn et al., 2022). The user gets a sense of accomplishment through these levels (Korn et al., 2022). Because levels allow games or programs to award badges or achievements or other rewards for special accomplishments or actions (Domínguez et al., 2013; Hakulinen et al., 2013; Hamari et al., 2013; Korn et al., 2022; J. H. O. Silva et al., 2023). Likewise, achievements can also reward motivated players for repeated use of the

game (Korn et al., 2022). In gamified applications, leader-boards can add to the motivation (Cheong et al., 2013; Domínguez et al., 2013; Eickhoff et al., 2012; J. H. O. Silva et al., 2023; Witt et al., 2011) because they offer a level of transparency between the players (Korn et al., 2022). As leaderboards show rankings of players, they lend themselves well to reward the best performing players (Flatla et al., 2011; Korn et al., 2022; Li et al., 2012). While this was found in different literature (Hamari et al., 2014), recently, more critique has been presented on the negative effects of leaderboards (Lessel et al., 2016). Lastly, progress visualizations in the form of bars, paths or other forms (Koss, 2022) provide motivation as well (Flatla et al., 2011; Hamari et al., 2013; Korn et al., 2022; Li et al., 2012). While there certainly are more aspects (Hamari et al., 2014; Korn et al., 2022), the aspects mentioned here form the core of gamification and suffice for the purpose of this paper.

Businesses employ gamification mainly to increase customer engagement (Harwood & Garry, 2015; Robson et al., 2016; Shahid & Arshad, 2021) but also to “enhance non-game goods and services by increasing customer value” (Hofacker et al., 2016, p. 26). This increased customer engagement results in new connections with customers, as well as increased brand loyalty (Harwood & Garry, 2015). However, the use of gamification may differ from business to business (Vesa & Harviainen, 2019). Nonetheless, gamification was shown to have potential to improve the CX (Hsu & Chen, 2018; Pour et al., 2021; Thomas et al., n.d.). In addition to these aspects and elements, the designers of gamified experiences need to take into account the four different types of players as described by Bartle (1996). These types were later adapted by Robson et al. (2016): Strivers, Slayers, Scholars, and Socialites. While most research points towards a positive impact, some literature states that gamification may impact the customer-brand relationship negatively (Harwood & Garry, 2015).

Based on the degree of player competitiveness and player orientation, different player types arise (Bartle, 1996; Robson et al., 2016). Players that are very competitive want to achieve the best personal score (Strivers) or improve their rank relative to other players (Slayers) (Robson et al., 2016). When players are less competitive, the motivation comes from a different source. Some players like to learn more about the game (Scholars), while others enjoy connecting with others (Socialites) (Robson et al., 2016). Each of these player types can also be found in gamified experiences as they enjoy different aspects of these (Robson et al., 2016). Underlying the discussion of player types, and more importantly gamification, is the MDE framework by Robson et al. (2015). It looks at the mechanics, dynamics, and emotions within a gamified experience (Robson et al., 2015), thus defining gamification in a clear and concise way:

Mechanics encompass the decisions the game designers make in regards to goals, rules and more, as well as the boundaries of this experience (Robson et al., 2015). This part is subdivided into “setup mechanics”, “rule mechanics”, “progression mechanics”, and “gamification mechanics” (Robson et al., 2015). Each of these mechanics plays a vital role to ensure a clear understanding of the gamified experience.

Dynamics describes the emergent behavior of the players during the experience (Robson et al., 2015). The emergent behavior in gamified experiences is highly unpredictable and can affect the intended outcome either positively or negatively (Robson et al., 2015). This poses the challenge for designers to anticipate scenarios and ensure a smooth experience (Robson et al., 2015).

The impact of **emotions** (Robson et al., 2015) in CX have been discussed previously in Section 2.1.2. Next to this, there are other frameworks that go more in depth (Ruhi, 2015), or consider other angles and approaches (The Gamification Institute, 2021), but this paper will use the MDE framework as it

better helps in understanding mechanics and dynamics.

2.3 Alternate Reality Games

ARGs are a sub-genre of video games that immerse players in a fictional world where they are required to work together with others to find hints, piece together information, and solve puzzles both online and in the real world (Valbuena & Rocha, 2020). ARGs have appeared as marketing campaigns for bands and movies as early as 2001 (Davies, 2022; Lang, 2011; Örnebring, 2007), but a first documented mention of the term ARG was in a whitepaper by Martin et al. (2006). The puzzles in these ARGs may consist of finding a simple QR-code in a location but can also range up to decrypting messages, looking at HTML-code to retrieve information, or turning an image into a message using several methods (Valbuena & Rocha, 2020). The game usually starts because a player or user finds a video or an image that does not belong there and investigates (Davies, 2022). While the ways in which ARGs are designed differ from case to case (ARGology, 2010), there are similarities (Davies, 2022; Janes, 2015; Stewart, 2015). These common aspects are shown in Table 2. This paper will investigate the impacts of all five aspects to ensure a better understanding of them.

Besides papers examining the use of ARGs in teaching (e. g. Whitton et al. (2014)) and generating models for the use of ARGs (Valbuena & Rocha, 2020), some research can be found on the use of ARGs in marketing (Janes, 2015, 2019; Regelin et al., 2018; Wojciechowski & Zdenko, 2017). The research showed that promotional ARGs still separate their promotional aspects from the creative ones (Janes, 2015). While Wojciechowski & Zdenko (2017) explore the connection between ARGs and viral or “guerilla” (Wojciechowski & Zdenko, 2017, p. 1) marketing. But to the author’s knowledge, no research was done on the impact of aspects of ARGs on the valence of CX. There is a large number of literature on CX and the concept and use of gamification. However, this literature analysis showed a gap in research on how aspects of alternative reality games can be used to positively impact the valence of CX. This gap in research entails missing knowledge on this topic. It is therefore necessary to examine this matter to understand more about this topic, to expand, and connect existing research on video games, CX, and gamification with a highly social phenomenon that is about twice as old as gamification: ARGs (Davies, 2022; Örnebring, 2007; Trinidad et al., 2021).

Aspects

Examples

This is not a game (TINAG)

“This is achieved through a rhetorical disavowal known as the TINAG rhetoric, whereby, through the course of play, the game will announce ‘This Is Not a Game’ (TINAG).” (Davies, 2022, p. 66)

“Websites must appear as they would do in ‘real life’. Phone numbers must work, e-mails must at least provide a plausible auto-response and as players come to know the characters there must be a sense of continuity.” (Janes, 2015, p. 189)

“There is often no explicit distinction between the real world and the game world, for example, websites within the game will often be indistinguishable from genuine sites.” (Whitton et al., 2014, p. 244)

Aspects	Examples
Pervasive Gaming	<p>“An ARG doesn’t happen between the covers of a book, inside the walls of a cinema, or framed by a computer console. An ARG comes at you over the many channels you use to receive and communicate the facts of your daily life.” (Stewart, 2015, p. 4)</p>
	<p>“The interplay between the real-world elements and fantasy narrative is one of the key elements of the genre...” (Whitton et al., 2014, p. 244)</p>
	<p>“Straddling offline and online spaces, both ARGs and QAnon¹ appear all encompassing, unsettling distinctions between reality and fiction.” (Davies, 2022, p. 65)</p>
	<p>“The ARG cares about the STORY, not the platform.” (Stewart, 2015, p. 6)</p>
Communities	<p>“Because ARG’s [sic] have to be assembled by large communities of people, they create a”collective” audience.” (Stewart, 2015, p. 7)</p>
	<p>“ARGs favour collective and collaborative detective work to progress through the story, each participant contributing with their own skills and expertise.” (Veale, 2020, p. 50)</p>
Stories in pieces that need to be assembled	<p>“On ILB, we took nearly 6 hours of radio and broadcast it in 45 second chunks over payphones identified only by GPS locations. Why? Because treasure hunts are fun. Because a story an audience assembles is one in which they have far greater investment.” (Stewart, 2015, p. 3)</p>
	<p>“Individuals who go down one of these ‘rabbit holes’ and enter the game world, proceed by following ‘breadcrumbs’, (morsels of narrative) or by discovering ‘dead drops’, (hidden caches of information).” (Davies, 2022, p. 65)</p>
Interactivity	<p>“One of the things that feels most exciting to players of ARG’s [sic] is that they get to co-create them.” (Stewart, 2015, p. 8)</p>
	<p>“Players found shadow messages relating the numerical story or just congratulations to the player, each step became necessary to advance the development of [...] the story” (Valbuena & Rocha, 2020, p. 1)</p>

Table 2: The five underlying aspects of ARGs

¹“QAnon is a far-right American political conspiracy theory and political movement that originated in 2017.” (Wikipedia, 2024, p. 1)

2.4 The Relationship between ARG and CX Valence

Following the discussion of CX, gamification and ARGs and its aspects, these concepts are still floating in space with no real connection. Focusing on the five aspects of ARGs, one realizes that “communities” and the use of both digital and analog media (“pervasive gaming”) (Stewart, 2015) are not commonly associated with gamification. They do find a place within CX. For example, CX uses multiple, often differing, communication channels (Carù & Cova, 2007a; Verhoef et al., 2009). Similarly, communities find ample use within CX and often appear in combination with value co-creation (Heinonen et al., 2019; Rowley et al., 2007). The other aspects, “interactivity”, “stories in pieces”, are often found within video games, but also in gamification (Carù & Cova, 2007b; Verhoef et al., 2009). “This is not a game” can be found within games, but it is not used within gamification.

As mentioned in Section 2.3, research on the connection between ARGs and CX exists. While this research focuses on distinct parts of CX, such as consumer engagement (Ricci, 2013) or the design of different experiences in general (Doorn, 2009). In these cases, ARGs are used either as a tool to bring classifications of players towards customer engagement (Ricci, 2013) or as an example of experiences for a certain purpose (Doorn, 2009)./ Opposed to this, Janes (2015) discusses the use of ARG within marketing. She explores the ways how players (customers) and producers of promotional ARGs negotiate their respective positions. She equates ARGs to a tool through which experiences in marketing can be facilitated (Janes, 2015). And explores the negotiated relationships between players and producers through the use of ARGs (Janes, 2013).

Wojciechowski & Zdenko (2017) focus on the relationship between guerilla marketing and video games. ARGs are mentioned as a tool that aids in allowing guerilla marketing to take place in a game and in the outside world at the same time (Wojciechowski & Zdenko, 2017).

While the above-mentioned research focuses on ARGs within CX on a surface level, this study focuses on the relationship between the underlying aspects of ARGs and CX valence.

This focus reveals two possible ways through which CX valence is influenced by: On one hand, they influence the CX valence without gamification. Here, the aspects of ARGs would have a direct impact. On the other hand, ARGs may influence the valence either by influencing gamification or by providing new elements that can be used within gamification. Figure 1 shows a possible distribution of aspects and the way they influence the CX valence.

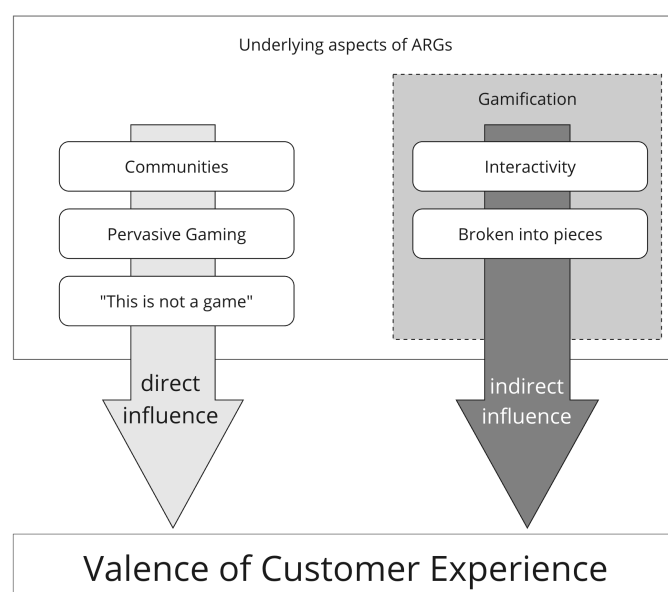


Figure 1: Relationship between ARG aspects and CX valence

3 Methodology

3.1 Research Design

This paper aims to answer the question: *How does the use of aspects of Alternate Reality Games impact CX valence?* Furthermore, it aims to answer the sub-research question: *How can companies successfully overcome challenges and avoid dangers associated with these aspects while ensuring ethical use?* The research was conducted using qualitative research (Hunter, 2006). Because of the novelty of this research, a first understanding needed to be developed (Stebbins, 2001). Exploratory research offers the best approach to uncover new avenues (Stebbins, 2001).

To uncover these, the inductive approach is chosen. The goal is to examine data and develop a theory from this data (Stebbins, 2001). Because of the qualitative nature of the research, interviews offer the best way to gather the data (Boeije, 2010). In this study, the interviews use the in-depth interviewing approach outlined by Rutledge & Hogg (2020). However, the preparations for the interviews, in the form of a literature review, were done using the principles of the long interview (McCracken, 1988). The results of the literature review on ARGs are shown in Table 2 in Section 2.3.

3.2 Research Setting

During a period of six months, interviews were performed online using Microsoft Teams. At the same time, the researcher worked together with gamification experts at Pfeffermind, a gamification agency in Berlin. This approach supported the researcher to gain additional insight into the application of gamification beyond the literature research. This allowed for a more detailed understanding during the interviews, as well.

For the interviews, experts from different industries were contacted via LinkedIn. These experts were located within Germany, the Netherlands, and Scandinavia at the time of contact. As the author placed no special focus on the industry backgrounds, different experts with at least two years of experience in CX were chosen. This ensured that a variety of valuable perspectives and experiences was collected.

The experts were selected using a purposeful sampling technique. This technique differs from random sampling, as the researcher first identifies the necessary information and then searches for experts that can provide this information through their knowledge or experience (Bernard, 2017). This technique is regularly employed in qualitative research, because it allows the researcher to identify and select individuals that offer rich and relevant information. As part of this approach, people who have a thorough understanding of the topic of the investigation (Patton, 2002). Due to the novelty of this approach, the opinions of individuals with a gamification background, as well as industry experts with experience in CX were chosen.

In total, the sample for this research consisted of 14 experts. This number is split into six gamification experts and eight CX experts from different industries.

3.3 Data Collection

The data for this research was collected using expert interviews. For the interviews, the in-depth approach allowed for a better understanding of a topic (Rutledge & Hogg, 2020). Additionally, the in-

depth interview helped interviewees express their opinions in a stress-free environment (Rutledge & Hogg, 2020). This way, it allows for additional insights by inquiring into a specific area of interest through follow-up questions (Rutledge & Hogg, 2020). Finally, they allow the researcher to reflect on the research at hand (Soest, 2023).

While the ability to delve deep into a specific topic is important, these interviews need to follow a consistent approach. To solve this, an interview guide was developed that outlines the general type of questions that will be asked (Qu & Dumay, 2011). This ensures that all interviewees are asked the same questions (Qu & Dumay, 2011). The general interview guide is shown in Table A1. These interviews help gain additional knowledge and information from experts (Audenhove, 2011). These insights are essential to evaluate the framework, but need to be reflected upon (Qu & Dumay, 2011). The interviews took between 40 and 70 minutes, averaging 50 minutes, and were recorded with the participant's permission. Afterwards, the interviews were transcribed manually or using the automatic transcription within Microsoft Teams. The transcripts were reviewed and any errors corrected. Sensitive information was redacted if it was part of quotes. This research received ethical approval by the University of Twente Ethics Committee.

3.4 Data Analysis

The data collected as part of the interviews was coded inductively using the Gioia-Method (Gioia et al., 2013; Gioia & Chittipeddi, 1991). First, quotes with important information are discovered using in-vivo coding (Gioia & Chittipeddi, 1991). They are then grouped into the first order concepts. These concepts summarize the main idea in these quotes. Afterwards, the first order concepts are sorted into second order themes (Gioia & Chittipeddi, 1991). These themes act as an umbrella term to sort the results. Finally, the themes are sorted into aggregate dimensions (Gioia & Chittipeddi, 1991). To aid in the coding of the information, Saldaña (2016) provided additional insights into the levels of information transmission during verbal exchanges.

While the Gioia-Method can be done manually in Word or Excel (Linneberg & Korsgaard, 2019), this study employed digital coding software, i. e. ATLAS.ti, to do this. Within ATLAS.ti, the in-vivo coding was performed as well as organizing the first order concepts and second order themes. At last, the themes were sorted into a network within ATLAS.ti. This allowed to second order themes to be moved around and grouped. These groups laid the ground work for the aggregate dimensions.

4 Findings

The leading question for the 14 interviews was: *How does the use of aspects of Alternate Reality Games impact customer experience valence?* These interviews offered a better understanding of the impact of all aspects on CX valence as well as the challenges and implication on strategies when managing the CX. Figure 2 shows the overall data structure following the Gioia method. This overview shows the development from the first order concepts, to second order themes and ultimately to aggregate dimensions. Additionally, Table B1 lists all first order concepts, second order themes, and aggregate dimensions, as well as illustrative quotes for each first order concept.

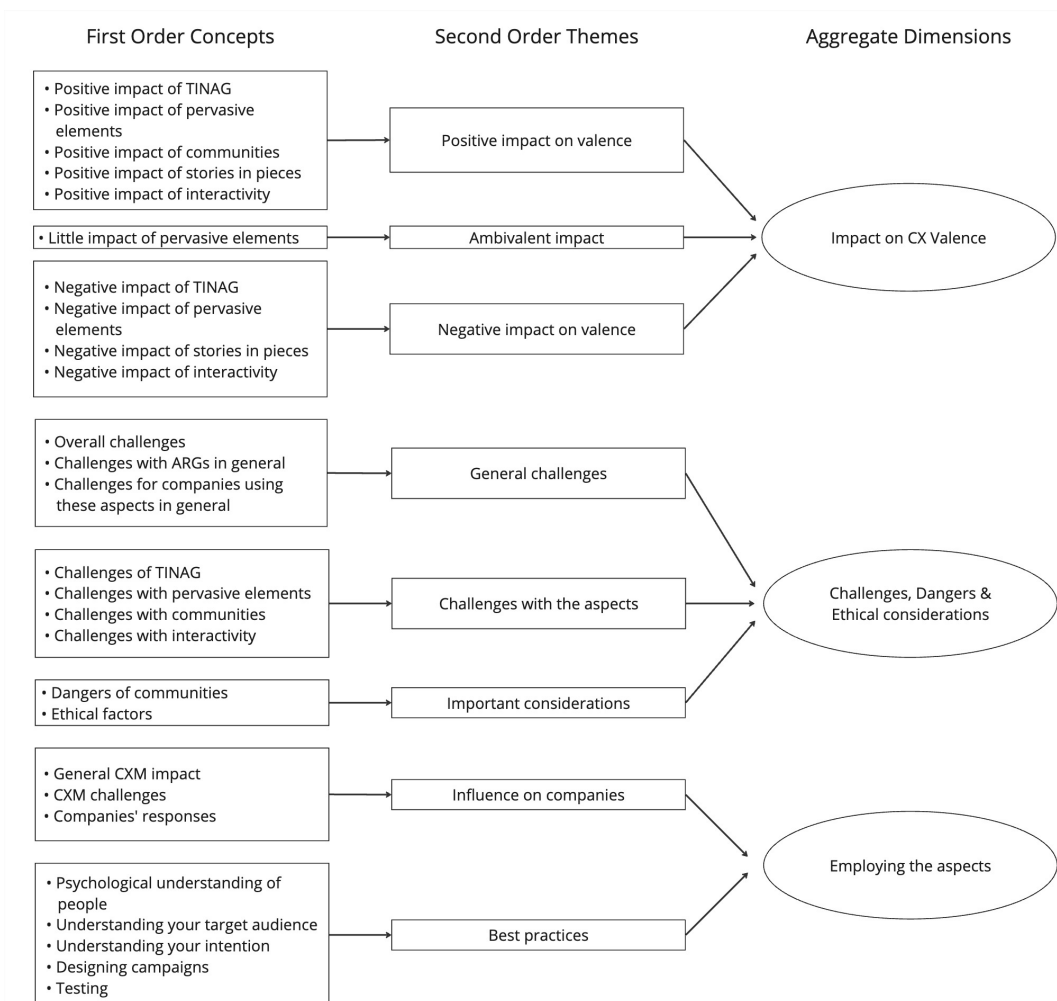


Figure 2: Data Structure

4.1 Impact on Valence

During the interviews, the participants received an in-depth explanation of what the five aspects of ARGs are. Based on these explanations, they reflected the perceived impact on the valence of each of the aspects. While some aspects had a predominantly positive impact, others had both positive and negative impacts. These findings are shown in Figure 3.

4.1.1 Positive impact

This is not a game

A lot of the positive impact was associated with the longer interaction period with a brand. Telling someone “this is not a game” may mean that “you will perhaps deal with it over a longer period of time. It definitely does something to you; how the brand is perceived.” Some interviewees clarified that the interaction can become positive when it is well designed, because “the outcome can be so much surprising that you actually create a very high [value] experience.” Other interviewees believed that this aspect can have a surprise factor: “[I]t’s a very immersive way to play because it suddenly goes completely beyond the scope of my expectations in a game.” This surprise helps to excite the customers and has a positive impact on the valence by “adding an extra dimension of fun.”

Pervasive elements

Pervasive elements—the combination of online and offline media—was found to have several different positive impacts on the valence, as well. Several participants believed that using pervasive elements provides “a whole different level of interactivity, also together and not just with the game itself”. This opinion was supported by others explaining that pervasive elements provide “different [...] advantages”. In one interview, the focus moved to receiving physical brochures in the mail. It was stated that “many people believe that doing it that way is quite effective, because there’s something quite nice about receiving something physical.” Another participant mentioned how bringing an experience into the analog world is “awesome in an age where everyone is on the phone and all have their digital world.”

From this point on, a lot of participants asked about QR codes as a means to connect the online and offline world. “I think it’s interesting, like combining the offline and online [...]. Seems to be a good space for like QR codes and augmented reality stuff like that could enable it.” QR codes were mentioned frequently, as the experts believed that these codes “would increase accessibility and have a positive effect”:

And at the other end, what I also see is that when there is a campaign running and you want to elevate this campaign with a higher experience, then also QR codes are being provided to draw you into this whole experience.

It is important to mention that some experts already had experience using pervasive elements. They made the “experience, [that] it had relatively little actual impact for the customer experience.” Following this, the impact on the valence “is not so big, both negative and positive”.

Communities

During the interviews, communities were one of the most discussed aspects. In general, participants believed that communities have a positive impact on the valence of CX. Communities—both online and offline—are believed as good ways to support larger groups of people and provide them with ways to interact:

Yes, so the strongest point for a positive valence I see in the community and this feeling of coming together with other people.

This need for communities was explored from two different perspectives: The nature of human beings and how riddles are designed. Firstly, it was highlighted that “[w]e humans are such social creatures and it’s this idea that I am part of the group or I am part of this community and can contribute and help to give the players a good feeling that people are still looking for.”

Secondly, riddles in ARGs are intentionally designed to be too complex to solve alone. This way, people have to share, collaborate, and come up with new solutions together. One interviewee pointed out “that you can’t play it [the games] alone and I find that a very interesting aspect.”

Communities often attract a lot of people and motivate them to interact intensely with a game, a brand or anything the community revolves around. Sometimes, “you cannot imagine how intensive people interact with them.”

Stories in pieces

When discussing the aspect of breaking stories into smaller pieces, the interviewees expressed three different perspectives. At first, most interviewees focused on the overall impact of this aspect. The majority agreed that stories lead to a positive impact on the valence. It was pointed out that “[a] story makes the whole thing more exciting and gives it a deeper meaning.”

The second perspective focused on spreading out the story to several different places. This would lead to people interacting with the story “for a longer period of time”. One participant indicated that “maybe it’s also cool that it doesn’t just take place in my neighborhood, but somehow also outside of my city.” Another participant shared an example they encountered:

I also saw the example of *Gravity Falls*. It was really impressive how well thought-out the puzzles were and how almost the whole world was involved, so to speak. Yes, that definitely sounds very impressive.

Lastly, a lot of industry experts focused on the impact on marketing. Breaking stories into pieces and spreading them out can help “keep a game or whatever you are promoting in the public eye for longer.” Others imagined how this could be used in future campaigns and in what settings it would work best. While the interviews did not go into further detail, one expert specified that using this aspect is most effective in several distinct areas in the customer journey:

I think [it] breaks down always into [...] three areas. It’s kind of like getting new people in, sort of understanding the journey and making that better, and it’s about this experience with someone that knows you really well and you just kind of adding experiences to make them even more connected to you.

Interactivity

Lastly, the interviews focused on interactivity, as it can impact the story, the game or the campaign. During the interviews, it became clear that this aspect, especially in the form of interactive experiences in the real world, has a positive impact. An interviewee said: “I think the interactivity is always good, so I think that has [a] positive effect.” Others focused on specific aspects that can impact the valence positively:

I think it's really cool when you really talk to unknown third parties who then somehow play a role. It's like being in a movie yourself, I think.

Besides the general impact, it was mentioned that they believed it is easier to get into contact with others in the real world in organized experiences, as the “threshold is lower”. This interactivity can be supported by bringing “fictional characters” into the real world. Finally, the interviews showed that interactivity—either as experiences, influence on the story or something else—can be provided as “a reward or way of giving a heightened experience to someone that really knows you very well.”

4.1.2 Negative impact

This is not a game

Similarly to the positive aspects, “this is not a game” was discussed first. While it was found it could be used to affect the valence positively, the participants illustrated how it could impact the valence negatively.

Most of the participants focused on the general negative impact and believed it could negatively impact the valence, because customers may be disappointed if they found out, they were only playing a game:

As a marketing campaign, I personally find it disappointing that I play the cool game and have the impression of making something cool and in the end it's all about a new flavor of Fanta.

Other participants explained that customers could feel disappointment due to a mismatch of the created expectations and the actual experience of this gamified experience. On one hand experts believed that “people don't know what they're getting into beforehand and then perhaps have the wrong expectations.” On the other hand, one expert clarified why they believe it has a negative impact:

But I can imagine that, depending on how it's done, it has a negative impact because you're building up hype and that will probably be difficult to fulfill

Another focus was on using “this is not a game” within the CJ. Because customers may not know immediately they are playing a game, it could disturb the mission of the customers. The disturbance would be bringing in “an element of: ‘OK, now you have to go and find something else’ ”. The responses to TINAG unveiled multiple emotions that could be caused by telling customers they are in fact not playing a game. Firstly, it could be confusing to customers due to the fact that it plays in the real world:

You can never be sure. It's not like an escape room, where I know that there are all the puzzles—they're either puzzle-relevant or not—but “yes, the world is suddenly my escape room and I don't know where it starts and ends.”

Secondly, because the lines between the game and the real world would begin to blur, it could become complex. Several experts believe that inexperienced people would not realize what is going on. One expert highlighted: “Then [customers] cannot figure out what it is. Is it a game or what is it?” Lastly, the interviews showed that customers could feel anxiety:

It can be confusing. It can be scary, there are people who are particularly susceptible to something like that or I don't know, conspiracy fanatics. It's a very special kind of game.

Pervasive elements

For the pervasive elements, the interviews showed that the only negative impact would come in the form of safety concerns. If you would find QR codes in different places of the world, it could happen that the customers think twice about scanning them. This worry is exaggerated by the fact that a combination of QR codes and TINAG could lead to QR codes that are not properly branded. This means, it is almost impossible to confirm that this code is made by a trustworthy brand:

But of course there's a bit of concern when you scan something, you don't want to get malware on your cell phone nowadays.

Stories in pieces

The interviews uncovered that breaking a story into pieces can also have negative impacts. When breaking a story into pieces and spreading them across large distances, the creators (companies, marketing agencies, or specific people) do not have a lot of control over the order in which the information is found. These "disjointed fragments can lead to confusion and [...] stress":

You can't necessarily control when the players get the information.

Interactivity

Interactivity with the story can take many forms. If it is done as an interactive experience, there can be some negative impacts on the valence, the interviews showed. "The most likely negative effect on valence is when I don't feel like going." This is supported by another expert saying:

It's not an experience where I watch a series where everything is fed to me or even a book where all I have to do is read.

On top of this, if these experiences take place in areas that are far away, customers may feel left out, "because [they] think something cool is happening and [...] [they] can't get involved."

4.1.3 Ambivalent impact

Some of the participants had difficulties deciding if the impact on the valence was positive, negative, or if there even was an impact. One expert found it difficult to "answer that [the impact on the valence] in such a general way". Another expert said that "the brand and what's behind it doesn't have that much to do with it, but simply [...] the fact that I'm interested in the topic and find it exciting enough to pursue or not?"

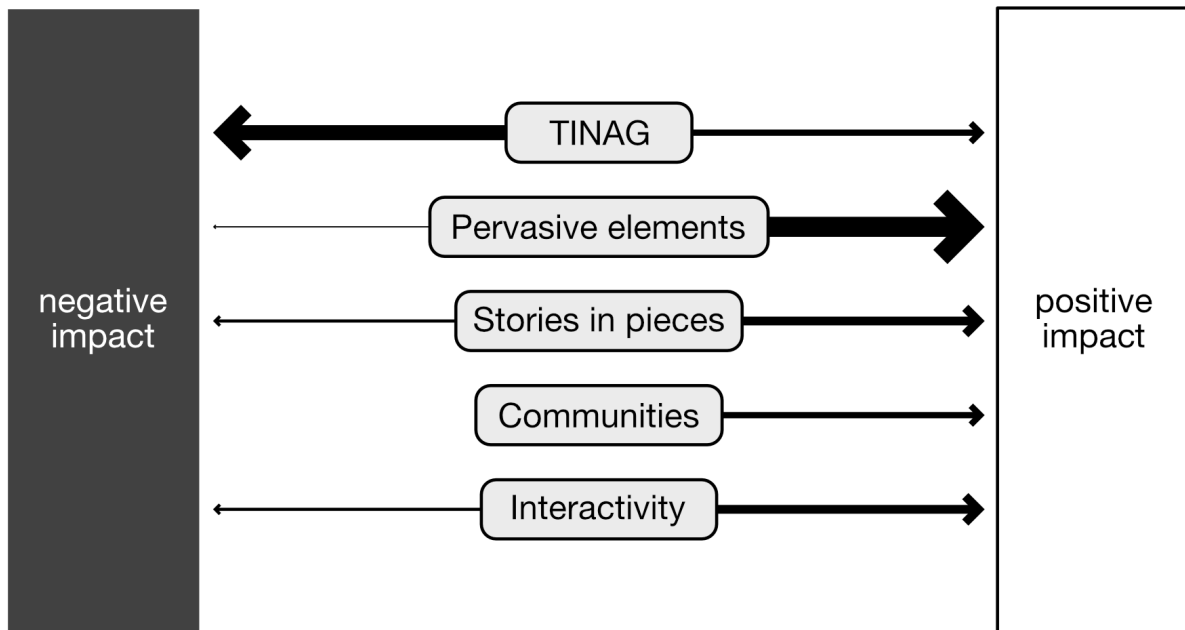


Figure 3: The impact on the CX valence visualized. The thicker the arrow, the stronger the impact.

4.2 Challenges, Dangers, and Ethical Concerns

In addition to finding out more about the potential impact on the valence, this study wants to understand how companies may be affected when using the aspects of ARGs as part of their CX. For this, the experts were asked what hurdles they could envision. From their expertise, it became clear that these aspects do not pose hurdles as much as they pose challenges and even dangers.

It is important to treat challenges and dangers separately. Challenges can be overcome by careful planning. The dangers, however, can only be mitigated and therefore need to be understood before proper implementation of aspects of ARGs as part of CX. Furthermore, the experts pointed out ethical considerations that need to be made before these aspects can be used.

4.2.1 Challenges

The interviews uncovered challenges for each of the aspects and pointed out overarching challenges with the aspects as a whole.

General Challenges

Firstly, it is important to realize that ARGs, still considered niche games, are only now starting to become relevant. Some of the participants “think, ARGs are still at the beginning.” On the other hand, other participants pointed out that “the maturity of most organizations in CXM is still miles away from [using] ARGs.”

Besides ARGs still being in the early stages, the difficulty of riddles is important, as well. It has a large impact on how people view a marketing campaign (hereafter campaign), as well as the company. Because “if it’s designed too easy, then people may say ‘I don’t know, this is too easy’, but if it’s designed too difficult then you might lose people.”

It comes down to the question “How difficult is the game going to be that needs to be played?”

When it comes to designing campaigns, they are usually planned in advance. When using aspects from ARGs, this planning may become more complex. Especially from the “point of view of a developer”:

So, I could imagine that it’s simply complex, especially in terms of the organizational effort involved.

But, this complexity does not stop in the planning stage. During the active stage of the campaign, there is a high likelihood that one will need to make changes or plan special events, create more or different promotional material, and always keep a team ready, because “it’s a continuous process”. For this, it is important to “calculate more time” when planning these projects. One expert explained it as follows:

Usually you produce some kind of campaign to attract customers and get them into the store, then you put up a few posters in a shop window or run a small commercial on TV, but something like that [ARGs] needs continuous support.

To adjust the game continuously, the ARGs themselves rely heavily on input from the player base. In the context of a company, this would be receiving feedback from their customers and actively implementing it. This poses another challenge, as one expert pointed out:

Not every brand is happy to receive feedback—they benefit from it, of course—but feedback is often seen as something negative and not as something positive or something I can learn from. That’s why, I think, the DNA of many brands is not suited to dealing with feedback from the community as openly as they do [sic].

Companies are faced with another challenge: the character of ARGs. These games themselves are still very much situated in “nerd culture”. Therefore, it is difficult to “appeal to the masses with it.” But, experts pointed out, one possibility to overcome this challenge: The image of the brand. While brand image itself was not a main focus, one expert spelled out the challenge for lesser known companies:

If you’re not a brand like Pokémon, it’s a thousand times harder to motivate people to move.

But not all challenges are on the side of the company. The interviews showed that the customers also face challenges. These will be laid out over the next sentences. On one hand, some customers may view the aspects of ARGs as “confusing”.

On the other hand, the impact on the valence heavily depends on the type of customer. In the same way that not all video games appeal to all players, ARG aspects may “that appeal to some and not to others at all.” On top of this, pervasive elements rely heavily on the use of digital technologies. But there are customers “that are not digital at all.” These points will be explored further in Section 4.4.

Challenges with “This is not a game”

After the challenges in general, it is equally important to go over the challenges associated with each of the aspects. Again, the order will follow how these aspects were discussed with the experts. TINAG has a difficulty appealing to large masses, as one expert believes: “For a certain group it can definitely work and they definitely get hyped by this. But [...] the majority of people don’t.”

Next to this, this aspect relies on blurring lines or pretending to be something else. But just this poses a challenge when it comes to legal requirements. “If you build websites, you have to have an imprint and be listed as a company [in Germany; note by the author]. As a game designer, you might say: ‘No, then the players will immediately know that it’s us.’” Because of this, companies would face big challenges when using TINAG:

It’s still difficult in marketing because of the guidelines and precautions taken by companies.

Challenges with Pervasive Elements

Using pervasive elements may not come with regulatory challenges, but combining the analog and digital world comes with logistical challenges. At first, companies need to figure out how they can reach physical locations, because “if you want to place QR codes on light poles, you need to send someone to place them.”

After overcoming this challenge, you need to maintain these elements, because “if you use a [...] landmark in your game and they clean up [...] and your QR code or sticker is gone”, the experience would be gone. This challenge was summarized by one expert:

When I am outside the game world, I am dependent on external factors.

Planning and maintaining these elements means that campaigns become bigger and more expensive. During one interview, an industry expert explained that they used to provide customers with physical boxes. But they “had to stop it again because it didn’t achieve as much as [they] wanted and was still quite expensive for [them].” Besides “having to invest more”, the dependency on external factors means that these experience may be “more prone to errors, especially [...] over a longer period of time.”

Lastly, the interviews showed that some benefits of the online world would fall away: “If the person is digital, [they] need 10 seconds and are where they want to be. Offline, it’s important to know where the person is, how quickly they can get” where they want to be. Usually brands aim to get people into their brick-and-mortar-stores. However, even then it can be difficult:

With brands, the stores are usually the places where you can do something. But even with supermarkets, it makes a big difference whether you live right next to one or have to drive an hour.

Challenges with Communities

While the experts believed that communities have a mostly positive impact on the valence, there are several challenges associated with them. Firstly, communities are heavily dependent on the people that join them. Multiple experts said that “there are always people who are particularly loud, there are always people who take things over, who rush ahead”. One participant described:

On the one hand, this dependence on the community is a nice thing when it works, but on the other hand, if it doesn't work, I can imagine it being ultra frustrating for everyone.

Secondly, managing communities was considered to be difficult, as well. As one interviewee pointed out: "I think, it is always difficult to set guidelines for something like that". Another clarified that "moderating in the forums or moderating a community is simply very time-consuming and I can't think of many examples where this works well in the long term." The interviews showed that "moderating and keeping a community alive is one of the most difficult tasks". And this cannot be solved by "trying to put money into [the communities]". Besides being difficult to manage, for one expert, communities depend on the purpose:

What I think communities are, depends also on the purpose of the community.

To understand why it is difficult to manage communities, it is important to take into account how communities are formed. In the eyes of one expert, communities are formed in one of two ways: "Either the 'power users' form their own [community] or find a way to communicate or companies start their own communities." First, communities created by "power users" and they like them, "they may jump on board". Secondly, companies may want to "push their own communities". During the interview, it was not indicated which of the two ways would be more successful.

Besides starting and maintaining a community, finding—and keeping up with—a community is a challenge in itself, as some experts described. Everyone has different "life situations", so customers may have difficulties finding "the community that you're looking for". But, once you are part of a community, it may be that you cannot keep up with it:

Once you're out, you just feel like you're completely lost.

Challenges with Stories in pieces

When examining potential challenges with breaking a story into multiple pieces, the main challenge seen by the experts was planning how customers interact with the pervasive parts of a potential campaign. Many gamification experts clarified that there is "a certain order in which you [...] should find the pieces," but if this order is disturbed, the whole campaign may be up-ended.

Challenges with Interactivity

The interviews showed that interactivity—with the campaign itself or at events—is expensive. Because the company needs to be proactive about integrating the community's feedback, one expert pointed out "that it's a very elaborate strategy and [they] think it would cost a lot of time to set it up to make it effective". In addition, "you may not reach the masses, you would like to reach." Therefore, it is important to realize:

The moment that you start and make it super practical [...], it's gonna cost you money and time.

During the interviews, the focus shifted towards interactivity through physical events. Here, several additional challenges were uncovered. For one, "not everyone can simply join" events that take place physically. The interviews showed that "you need to consider who you organize these events for":

How do I get this organized? With physical people it's problematic that you can't lump everyone together. [...] You have to decide who to involve. That poses a lot of logistical problems.

Another expert stated that "it can become difficult to keep [communities] up over a long time". Mainly, because the customers "may not be able to participate actively". The costs of communities can pose another challenge.

Challenges when applying the aspects

Several interviewees focused on the challenges with implementing all five aspects of ARGs in future campaigns. The interviews showed that these campaigns need to be designed in more detail. You need to "involve more people [...] who really think about something concrete." This challenge is amplified the longer a campaign goes on:

If it's purely a marketing thing, that goes on for half a year or even longer, yes, I think you have to put a lot of time into it, a lot of thought into it.

Yet, the planning becomes more elaborate, as you need to "bring in the developers, the programmers or, as [an expert] said, the people that [are tasked with putting up the physical elements] much earlier to see if what we're thinking works at all." However, in the eyes of an expert, this effort can be offset, because "the chance to generate a buzz [...] is actually huge."

4.2.2 Dangers and Ethical Concerns

Besides the challenges mentioned, the interviews revealed that several aspects can pose dangers that are difficult to circumvent. The experts believed that the dangers could actively harm the well-being of customers. Some experts talked about ethical concerns that would need to be addressed.

Dangers

When talking about the dangers posed by using these aspects, the focus was put on communities. An expert expressed their concern that customers may feel excluded. Especially when the campaign aims to target players that find special hints "you're feeling part of a selected group, but you can also quickly feel excluded." This feeling of being excluded may arise, when companies are planning physical events. One expert illustrated that "if it all takes place somewhere in South America, for example, [people elsewhere could] think 'cool, that's just the event of the century and [I] can't be there'."

The interviewees pointed out that breaking a story into pieces could lead to the possibility of players trolling². This trolling can take the form of "someone [pretending] that they have [...] another piece of the story." Another participant mentioned that the motivation may be to "get an advantage over others". This behavior, coupled with other malicious behavior "can lead to isolation and frustration."

²**Trolling** is usually used in relation to a specific type of malicious behavior online, intended to annoy others and disrupt interactions and communication (Bishop, 2012)

Ethical concerns

A topic that came up in several interviews were ethical considerations. These considerations are focused on the aspects themselves or how the aspects may be used in a malicious way. The voluntary nature of these games, and in extension, the aspects, was highlighted most frequently. One expert pointed out that the participation “needs to be on a voluntary basis”. Another said the campaigns “shouldn’t feel forced.”

If companies were to employ gamified campaigns that are designed to tell players that ‘this is not a game’, “brands lie to a certain extent”. Because if customers are not aware, even after investigation, that they are, in fact, playing a game, they could feel “deceived”, “misled”, and “screwed [over]” by this brand. Not only could this lead to negative publicity, it could also lead customers to “think highly negatively over this brand.” One expert summed this up by saying:

The main problem I see, is that when people don’t know it’s a game and it’s used for the wrong purposes.

The interviews showed that companies need to consider how these aspects “could be harmful for [...] vulnerable groups.” Vulnerable groups can include youth or individuals prone to addiction. Because of the way gamified experiences are designed (Farnsworth, 2020), people can get infatuated by them. These games “[unlock] the dopamine in the brain, so people can get so addicted and lose themselves in those games.”

4.3 Implications for CXM strategies

Besides looking at the impact of the aspects of ARGs on the valence of CX, this study also asks: “What are the implications for companies’ CX management strategies?” For this, the experts were asked to discuss the possible implications of each of the five aspects on CX management strategies. While the impact was discussed, several challenges for the use within CXM arose. The experts clarified how companies would need to adapt their business practices and respond to the challenges to use these aspects more effectively.

4.3.1 Positive Impact on CXM Strategies

First, it is important to understand that the interviewees assumed a well-designed campaign using ARGs to address the impact on the CX management strategies.

The impact on brand perception was discussed first. One interviewee acknowledged that using “existing hype creating strategies”, like “[releasing] clues about albums and content”, in combination with these new aspects could lead to a new perception of the brand. Another expert expressed that through “this new image” customers can associate positive things with a brand:

Wow, cool, they also make awesome games now!

Besides impacting the brand perception, the interviews uncovered that these aspects could lead to improved customer acquisition and enhanced customer retention. One interviewee detailed how this impact may happen. It was specified that different customers have different missions, ranging from “needing to be entertained” to “I’ve gotta get in, get out”. However, if a new customer is

“discovering you, then [...] they’ll find [pervasive elements] quite interesting and they go on this journey of discovery and [...] are connected to your brand”. In addition, it is important that customers leave a brand interaction with the thought:

That’s a brand that did something for me and and it’s kind of a fun brand and it’s cool and they kind of get me.

On the other hand, when brands have already acquired customers, campaigns using these aspects could lead to customers wanting more. If the experience is well made, they may say: “Okay, that was cool, I would love to do it again.” As one expert said: “If it works, it can impact the whole customer experience strategy [and] would lead to a stronger interaction with the customer.” Another expert said:

If you do it successfully, I think yes, it will definitely change the way they [the brands] focus on customer experience, because they will try to probably make it more interactive and look at these [aspects] to do that.

During one of the interviews, the expert outlined that these aspects seem to be the next step in an evolution. As part of this evolution, the digital merges with the offline world. Because of this merging, “you see most of those hybrid experiences actually happening”:

So I would say five years ago it was more that you have digital [on one side], you have non-digital [on the other]. And currently you see those things merging and this is actually what also is happening in what customers do.

4.3.2 Challenges for CXM Strategies

The first challenge for companies comes from a mismatch of typical marketing campaign design and the design of ARGs. As one expert pointed out, marketing campaigns “are not continuous”. They tend to stick to time frames of “weeks or months”. If campaigns with ARG-elements stick to this duration, “you could start [using the aspects] quite well”.

Even if the duration is not a big challenge, most companies want to reach large groups of customers. Several experts expressed their worries that these aspects do not allow campaigns to “really [...] grab everyone and target them”. This may be because of the niche character of ARGs, as mentioned in Section 4.2.1. However, another challenge is motivating people “to move, because otherwise it will slow you down.”

[Y]ou’re probably gonna expose [interactive experiences] to maybe 100 people at a time. And when you’re a brand like IKEA, [then] you’re trying to talk to hundreds of thousands of people, right? So it’s not something you can do on an everyday basis.

The five aspects of ARGs create overlap between the phases of campaigns. With ARGs there exists a possibility that “the game is already live and while people are playing it, you need to develop it further”. One of the biggest challenges here is the fact that there are “no clear defined phases”:

There are no clear cuts or milestones are defined differently as one is used to. Usually you say: 'Step one is done, now we can continue'.

4.3.3 How Companies Should Respond

These challenges may be difficult to address, but the experts clarified how they believe companies should respond. They pointed towards experiences from their past—either in their industries or experiences with specific people. At first, it is important to understand that due to the novelty of the use of these aspects in campaigns, brands can become “first movers”. But, this realization has “not really arrived in the management.”

There are single marketing-campaigns that seem to work and generate a lot of attention, but not so many that we are flooded with these topics.

To generate this attention, companies need to change the way they view customers. One expert experienced “that a lot of companies are still business focused.” Another recounted that “what is behind a brand does not always match with what [customers] need to be successful” in their interaction with the brand.

With these opportunities and needs for change, it is necessary that companies pay attention to the risks mentioned above. Therefore, one expert believed it is important to “have a plan [...] what to do in these kinds of cases”.

Using these novel aspects could lead to a different type of attention among customers or interested people. The interviews showed that a lot of attention could be generated through word-of-mouth-marketing between friends. This mostly happens if “you tell me about it, because you enjoy it and I also think ‘that’s cool’ and take a look”. Another interviewee remarked that by using such aspects “you really create a name for yourself because then people will start talking about you.” Or as another expert characterized:

You only gain new customers if it is made in a way that others talk about it.

4.4 Best Practices

After having discussed the impact on the CXM strategies for companies, it is helpful to understand how to start using these aspects. The experts expressed several ways to best employ these aspects. Their approaches were gathered and sorted into five different categories by the researcher. The resulting categories are seen as best practices when employing aspects of ARGs. These best practices show an order that should be followed when companies want to use these aspects:

1. Understand people
 2. Understand your target audience
 3. Know your intention
 4. Design campaigns the right way
 5. Testing, testing, testing
-

4.4.1 Understand people

Before any marketing campaign should be started, it may be helpful to first understand people on a psychological level. Humans are “social creatures.” Therefore, communities—no matter the type—are a “basic human need.” These communities connect people, help solve problems or provide a platform to discuss opinions. This can lead to “social recognition and confirmation” and in a sense “it validates what I’m doing.”

Other experts stated that humans “love to solve problems”. In this case, they want to be rewarded “when they solved” something. On one hand, this recognition from others in communities can act as such a reward. In general the experts agreed, humans want rewards. On the other hand, these rewards can be something physical. For example, “if you’ve gone to the museum or you’ve gone to an amusement park or something, there’s always a gift shop at the end.” This way, people reward themselves with souvenirs or gadgets

According to the interviewees, it is important to realize that “people are lazy.” This laziness may not always be a bad thing, but “[customers] want to understand and get their dopamine levels up [...] quickly”. Furthermore, it was pointed out that people can lose interest just as quickly. This poses the “risk of people simply boring out: [...] ‘Yeah, I don’t understand, it’s not for me’ ”.

4.4.2 Understand your target audience

Besides understanding how people act, the interviews also showed that it is important for companies to understand the people they want to reach. Some companies only find out later that they targeted the wrong audience. For example, you may “think ‘yes, nice, everything can be done online’ and [your customers] are 50-year old parents that just do not understand that and [...] need it on paper.” Therefore, one expert said:

You need to [...] be quite good at understanding different types of customers [and] the experiences they want to have.

Additional factors in understanding the target group are the expectations and the need for offline experiences customers could have. One expert recalled from experience, customers do not use their appliances at home how the company envisioned, “because they don’t expect their appliances to be connected to the internet.” This mismatch in expectations can be remedied through interactive experiences surrounding and including the product. This was confirmed by another interviewee who experienced that “it is super, super difficult to hold people solely online, because you cannot get the whole ‘feeling and touching and trying out’ online.” In brick-and-mortar locations, functions and features of products can be presented more effectively.

4.4.3 Know your intention

Next to understanding the target group a company wants to reach, it is important to know the intention of the campaign. During the interviews, several experts described that the impact on the valence is mostly positive, but it “all depends [...] on the purpose”. They mentioned further, companies need to understand “what [they] want”. For some companies, the goal is only to have people talk about you. In this case, “brands just do [campaigns] and then they don’t care whether [the impact] is positive or

negative.” But in general, as one expert said, companies need to ask themselves:

What [are customers] trying to achieve, when [they] are interacting with that brand?

4.4.4 Design campaigns the right way

If companies want to employ the five aspects of ARGs this paper is focused on, the campaigns need to be designed with these aspects in mind. During the interviews, the experts pointed out several parts that should be considered for campaigns to be successful. These will be discussed in the following sentences.

At first, the interviews showed, companies should use common sense when employing aspects of ARGs. If the games are designed to not appear like games, it should still be possible to be able to “critically think about it and [realize] that it is a game.” One expert clarified that “the players do know that they are not looking for some code to find the holy grail.”

Next to campaigns being designed so that customers can still use common sense, it is important to understand that experiences are used in different ways. Because these aspects are part of ARGs, they are used from the lens of video games. In companies, experiences have a different role, as an interviewee pointed out:

In games, the experience is the goal, but within companies the experience is a tool.

Another factor, besides understanding how experiences are employed, is the need to realize that the campaigns are influenced by their target groups. In the interviews, the experts highlighted how different customers require different types of campaigns and riddles. One expert described that “you should adapt [the types of riddles] to the community one has”. Another expert explained:

“I think this is very specific. In a specific group, [difficult riddles] would be very good. You know a player type would really be into this, but I think in general, people don’t want to put in this effort. [...] So in that case, [it] depends.”

The interviews showed that it is always necessary to consider critical mass. Critical mass describes the amount of people needed for word-of-mouth marketing to lead to chain reactions that guarantee campaigns become “sure-fire successes”. Achieving this critical mass is necessary when riddles take place all over the world or stories are spread across the globe. But, “it is difficult to get there”. Critical mass plays another vital role, when it comes to the impact of campaigns:

You can make a great strategy, but if nobody follows it, it’s worthless; If you make an OK strategy and everybody does it, it’s OK and it’s better than the first one.

While this expert talked about strategies, they clarified that this also applies in the context of campaigns. Similarly, a great campaign using the aspects of ARGs can be considered worthless, if it does not reach the desired target groups. On the other hand, an “OK campaign” that the customers are really excited about, means a lot more to the company.

Lastly, it is always important to ensure that campaign ideas fit the context of the products of the company. In one interview it was said that “all the different options [of aspects] can work, but [they] need to make sense in the context.”

Combining Aspects

During the interviews, several experts realized that it can be beneficial to combine several of the aspects. Most of the interviewees mentioned that “breaking a story into pieces ties into communities”. Because “the story can only be completed if [all players] work together.” However, as discussed above, it may not be necessary to have a community when creating riddles, as customers may create communities themselves. Another interview showed that it is possible to combine “pervasive elements and stories in pieces”. Here, the expert concluded that a story in pieces lends itself well to be explored both on- and offline.

4.4.5 Testing, testing, testing

While not all interviews mentioned all of the practices above, they did all mention testing. Testing can take many forms, as the experts clarified. It can be used to “see, how customers react to” these types of campaigns, test how these aspects “fit the company”, or just finding ways to best design these campaigns. Similarly, if a company wants to mitigate the challenges mentioned above, “the best way to do it, is to test it.” In any case, it was said:

You should not just throw it in there, you just maybe create a focus group and test it and then you get learnings. And then you can actually shape it towards something you are happy with, especially if you set a goal of what you want to achieve.

4.5 Providing Perspective

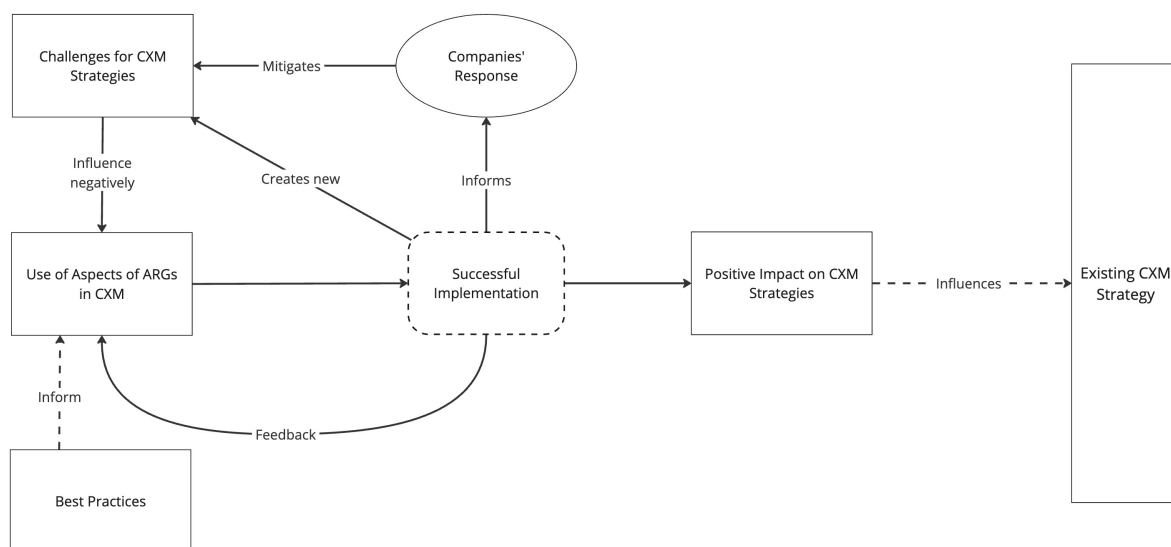


Figure 4: An overview showing the links between the different CXM-related impacts

After the discussion of the findings, it is important to lay out how they relate to each other. Figure 4 shows the interaction between the use of ARG aspects, best practices, and challenges. At first, is the decision to use ARG aspects in a company’s campaign or as part of a new CXM strategy. The best practices identified from the interviews help maneuver around pitfalls and larger issues that can lead

to longer testing cycles down the line. At the same time, the challenges can negatively influence if a company will employ elements of ARGs in their CXM strategy or customer-centric marketing campaigns. To guide managers, Figure 5 shows an approach to understand and decide if there is a good fit between the use of these new aspects and the company. It is important to note that not every industry—or even every company—is fit to use these aspects.

The correct use of ARG aspects can lead to a successful implementation in campaigns. This use can inform how companies should respond to existing challenges and can further bring new challenges with the use of ARG aspects to light. The successful implementation also provides feedback on the use of ARG aspects in general. These different feedback moments are vital for the company, as this can lead to improvements for future campaigns. Most importantly, however, a successful implementation in campaigns leads to a positive impact on the CXM strategy.

This positive impact can consist of an improved brand image with customers and subsequently a stronger relationship with existing customers while attracting new customers. These changes can lead to a revised view of customers, leading to a more customer-centric approach. Besides this, it can change the processes within a company towards a more iterative process, such as agile methods. All in all, these changes can lead to a sustainable change in CXM strategies.

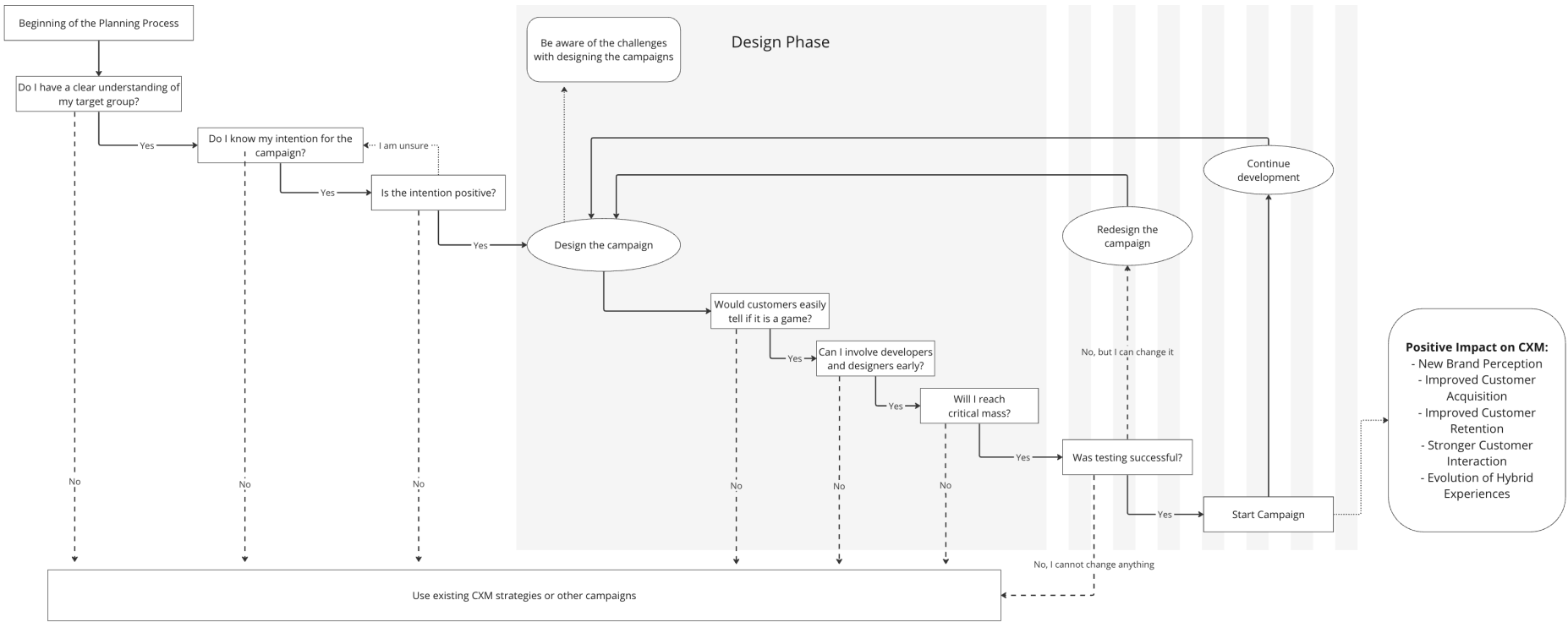


Figure 5: Guiding Framework showing how companies can use the aspects successfully

5 Discussion

The findings of this research presented in this paper investigate experts' perspectives on customers' reactions to the use of aspects of ARGs in CX. This paper aims to answer the following research question: *How does the use of aspects of Alternate Reality Games impact CX valence?*

Based on the findings, the use of ARG aspects has both positive and negative impacts on CX valence. The findings show that the aspects "pervasive gaming", "communities", "stories in pieces", and "interactivity" all have strong positive impacts on the valence, with "pervasive elements" having the largest positive impact. No scientific papers on this topic could be found for a comparison. This highlights the pioneering nature of this master's thesis. A paper in the field of customer satisfaction by Regelin et al. (2018) supports my conclusions that ARGs lead to enjoyable experiences. These four aspects only have little negative impacts. In the findings, these negative impacts can be traced to inherent challenges these aspects show when they are used outside of an active player base. This means, these challenges come from the average customers' unfamiliarity with ARGs—and at times video games as a whole. So, while ARG players know what to pay attention to, the average customer may not realize what is and what is not part of the game.

The findings also show that the aspect "communities" poses several challenges. While the experts agreed communities are a human need, within the context of companies and brands, communities are rarely implemented successfully.

While TINAG has a positive impact, it is outweighed strongly by its negative impact on the valence. Experts stressed that its negative impact came from a feeling of disappointment, paired with confusion. While TINAG "works to maintain [a] sense of immersion in the game world" (Janes, 2015, p. 189), these findings suggest that this is not the case, if TINAG is used outside of ARGs in other CX-contexts. This negative impact, however, does not result from the aspect having a negative influence at all times. Within ARGs, TINAG is the driving force in captivating players (Davies, 2022). Finally, the findings display an increased positive impact on the valence if several aspects are used in combination. One example could be having pervasive elements paired with interactive events has a greater positive impact than just using pervasive elements or interactive events.

Besides answering the research question, the findings also helped develop five best practices. They support and align with the research done by E. C. D. Silva (2021). Based on these best practices, a guiding framework was devised to help companies decide if the aspects of ARGs should be used and further help avoid dangers and ethical issues. This is done through proper understanding of people as a whole, the company's target group, as well as the legal requirements in different countries. Furthermore, good design practices are shown as part of the best practices in Figure 5.

5.1 Theoretical Contributions

There is a steady progress in research within CX and the understanding of customer-centric approaches (Lemon & Verhoef, 2016; E. C. D. Silva, 2021). This progress can also be found within gamification (Robson et al., 2016; J. H. O. Silva et al., 2023). When looking at these two fields of research, there appears a gap of studies into the complex interaction between ARGs and CX. To fill this gap, this paper focused on the effect the aspects of ARGs have on the valence of CX.

Firstly, this paper fills the gap identified prior by showing that gamification is not only limited

to the use of mainstream video game elements [cf. Trinidad et al. (2021); p. 46536]. By doing so, it highlighted the connection between video games in general and their effects on customer engagement. It supports findings by Harwood & Garry (2015) showing that connections between customers and brands lead to stronger interactions between customers and brands.

Secondly, this paper tangentially touched upon the effect of player types and their personalities on the effectiveness of gamification. It supported the notion that the personality of players impacts the degree of effectiveness of gamification (Rothmann & Coetzer, 2003). Further, it helped show that the player types according to Bartle (1996) have an impact on the interaction with the five aspects of ARGs. This further expands research into the effects of the player types on the enjoyment of different gamification aspects (cf. Kocadere & Çağlar, 2018).

Thirdly, this study dove into the use of ARGs within marketing. In the past, ARGs have been used in marketing with different aims (Davies, 2022; Lang, 2011). Furthermore, scientific research was performed to analyze how games belonging to this genre have been used in marketing (Janes, 2015; Regelin et al., 2018; Wojciechowski & Zdenko, 2017). The results of this paper further support research by Janes (2015) that TINAG is met with concern by customers. However, this paper also shows that the focus on the underlying aspects of ARGs can help make distinctions between promotional material and the game less obvious, countering Janes (2015).

Fourthly, the findings support previous research into CX. By showing that the valence of CX is dependent on the context in which the ARG aspects are employed, this study supports the nomenclature proposed by Keyser et al. (2020). It adds to the findings by Lemon & Verhoef (2016) that communities are a vital part in the interaction between companies and customers. The findings of this study show that communities not only act as a vital part between the interaction, but they also impact the way customers feel about experiences.

Lastly, and most importantly, this paper shows a direct link between ARGs, gamification and the valence of CX. All five aspects have a positive impact on the valence, though the intensity differs (see Figure 3). The findings additionally highlight challenges and dangers associated with using ARGs to impact the valence of CX. By investigating these aspects, this paper aims to provide a holistic understanding of the matter at hand. This in turn helps to create a foundation on which future research can be conducted.

5.2 Managerial Implications

In the current market, companies are faced with shifts in both customers' purchase habits and their needs and wants in regards to interactions with a brand. This research unveiled several crucial practices companies should implement to address the challenges in the market. By doing so, they can enhance the customers' experiences and move towards stronger relationships with their customers.

Firstly, it has become clear that companies should move towards a customer-centric approach. By bringing the customer in the center of all efforts, companies can learn more about their target group and can therefore tailor their offerings more adequately. This way customers feel understood and seen by the brands they interact with, which leads to increased customer satisfaction. The change towards customer-centricity can be difficult at times, but small steps, such as implementing feedback opportunities or co-creation with customers, can lead to first changes.

Secondly, companies should move towards iterative project management practices. They

can ensure faster development cycles and more opportunities for feedback and changes. This change is important if companies want to ensure a successful implementation of the aspects mentioned in this paper. Likewise, key stakeholders, such as graphic designers, developers or external contractors should be brought into the projects at the earliest stage, to guarantee a more realistic time planning and in the end a more successful campaign.

Lastly, the research showed that companies should pay attention to their image. While the image of a company can be influenced by several aspects, customers value companies that are not afraid to innovate and try out new developments. By establishing themselves as creative and innovative, companies can attract different customers and retain existing customers.

Companies can use ARG aspects within their CXM strategies and marketing campaigns with success if they address the issues mentioned above and implementing the insights into their decision making processes. However, the use of ARG elements should be done in an ethical manner informed by a clear understanding of the customer base and their wants and likes. This way companies ensure that they will not alienate their customers, but foster stronger relationships. Figure 5 shows a guide that can help in understanding the customers and ensure the adequate planning of campaigns.

6 Limitations and Future Research

This research, like all other research, suffers from limitations. During the research, the author tried to mitigate the impact as much as possible, but influences on the results cannot be eliminated.

From the beginning of this research, the author was aware that ARGs are still a novel genre of games. As part of the literature research, several examples were found and examined to find the underlying aspects. Yet, ARGs have remained hidden from the mainstream for over two decades. Because they are not in the mainstream, not all experts had heard of them. This made it difficult to clearly explain the games in a way that novices were able to grasp the concept.

This challenge in understanding the concept created additional limitations to the research, as the literature review showed no clear definition of what an ARG is. This proved to be a limiting factor, as experts mentioned several examples to ask if they were ARGs or not.

During the interviews, the author tried to mitigate these limitations by writing a document outlining what ARGs are, as well as quickly clarify the underlying aspects. Additionally, the interviewees were always able to ask questions for clarification before answering the questions. The above mentioned limitations can be avoided through further research into ARGs. This research could help classify ARGs more accurately and lead to a universally accepted definition.

The number of interviews can be seen as a limiting factor. During his work at Pfeffermind, the author was able to interview six experts in gamification. This limited sample could lead to bias. Similarly, the eight industry experts can lead to further limitations. The interviewees were chosen on their expertise. During this phase, the aim was to gain a wide representation of experts with a diverse background. This was achieved. Yet, the results may not be generalized as other industries are missing. In the future, research should be performed to include a larger sample size for each industry. Not only could this show industry specific impacts of ARG aspects, but it could also allow for a more generalizeable result. In addition, future research can be done in the form of case studies in cooperation with brands. This way, the impact in real-life settings can be analyzed.

Lastly, the research only involved CX and gamification experts. Because customers play an integral part of CX, it is important to involve this group in future research. This limitation can be linked back to the scope of this research. Besides requiring a greater planning and coordination effort, it would also require a large network of researchers and time to reach a representative sample size. As mentioned above, future research could take on the form of case studies. In these, the customers can be approached and their feedback and insights can be taken into account. In addition, research can be performed to assess the general view of customers on these aspects, regardless of their knowledge of the concepts of CX, gamification, and ARGs.

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Appendices

Appendix A – Interview Guide

Purpose	Interview Question
Introduction	What is your current position? How long have you worked in this position? What is your educational background?
General understanding of gamification	What was your first interaction with gamification? How has your understanding of gamification changed over the years?
Explanation of ARGs and possible uses	With gamification and also video games becoming more widespread, have you heard of ARGs (Alternate Reality Games)? <i>Explanation of ARGs</i>
Expert opinion on the use of ARGs and potential pitfalls	After this explanation, what do you think of ARGs? In your expert opinion, how would you see (aspects of) ARGs used to improve the customer experience? What possible problems or pitfalls do you see in this moment?
Implications for CXM strategies	Could you imagine using aspects in your projects? If so, how do you think this will change strategies from clients?
Closing	Do you have any questions? Thank you for your time and valuable information.

Table A1: General Interview Guide

Appendix B – Coding Scheme

Quotes	First order concepts	Second order themes	Aggregate dimension
<i>“I imagine it would be mega cool if it really is something that you have to see in action”</i>	Positive impact of interactivity	Positive impact on valence	Impact on CX valence
<i>“It’s a very immersive way to play, because it suddenly goes completely beyond the scope of my expectations in a game.”</i>	Positive impact of TINAG		
<i>“A story makes the whole thing more exciting and gives it a deeper meaning.”</i>	Positive impact of stories in pieces		
<i>“We humans are such social creatures and it’s this idea that I am part of the group or I am part of this community and can contribute and help that gives the players a good feeling.”</i>	Positive impact of communities		
<i>“It’s a completely different level of interaction, not just with the game itself.”</i>	Positive impact of pervasive elements		
<i>“[...] from the experience now, it had relatively little actual relevance to the customer experience”</i>	Little impact of pervasive elements		
<i>“You can’t necessarily control when the players get the information.”</i>	Negative impact of stories in pieces	Negative impact on valence	
<i>“But of course there’s a bit of concern when you scan something”</i>	Negative impact of pervasive elements		
<i>“When you then bring in an element of: ‘OK, now you have to go and find something else,’ it’s disturbing to that mission that you have.”</i>	Negative impact of TINAG		

Quotes	First order concepts	Second order themes	Aggregate dimension
<i>“Interactive experiences naturally have a hurdle. It’s not an experience where I watch a series where everything is fed to me or even a book where all I have to do is read.”</i>	Negative impact of interactivity		
<i>“So then it comes down to the question, how difficult is the game going to be that needs to be played.”</i>	Overall challenges	Pitfalls and other considerations to make	Challenges, Dangers & Ethical considerations
<i>“The main difficulties are also that I don’t think you can appeal to the masses with it.”</i>	Challenges with ARGs in general		
<i>“But it’s still difficult in marketing because of guidelines and precautions from companies.”</i>	Challenges of TINAG		
<i>“When I am outside the game world, I am dependent on external factors.”</i>	Challenges with pervasive elements		
<i>“I think it’s always difficult to set guidelines for something like that” “But the fact that you have an active community is super rare.”</i>	Challenges with communities		
<i>“But the moment that you start and making it super practical now, because the moment you do that, it’s gonna cost you money and time.”</i>	Challenges with interactivity		
<i>“The maturity of most organizations in CXM is still miles away from ARGs.” “I understand that it takes a lot of effort”</i>	Challenges for companies using these aspects in general		
<i>“Toxic communities can lead to isolation and frustration”</i>	Dangers of communities	Important considerations	

Quotes	First order concepts	Second order themes	Aggregate dimension
<p><i>“It could be harmful for [...] vulnerable groups.”</i></p> <p><i>“If you trick customers into something and they understand it’s not for their benefit, then they kind of feel screwed.”</i></p>	Ethical factors		
<p><i>“It can create a new brand image, so that you think ‘Wow, cool, they also make awesome games now.’ ”</i></p>	General CXM impact	Influence on companies	Using these aspects
<p><i>“But with marketing you want to reach a lot of people.”</i></p> <p><i>“A lot of companies, even very large companies, are really, really bad [at implementing new approaches].”</i></p>	CXM Challenges		
<p><i>“You need to have a plan [...] what to do when [something goes wrong].”</i></p>	How companies should respond		
<p><i>“Sometimes, people just don’t do the effort. So in general, I feel people are lazy.”</i></p> <p><i>“A lot of people love to solve problems.”</i></p> <p><i>“You get the human sense that everyone else is doing it, it validates what I’m doing.”</i></p>	Psychological understanding of people	Best practices when using these aspects	
<p><i>“You like brands that seem to get you and understand what you are.”</i></p> <p><i>“I believe, you need to think about what your target group is and what fits with it.”</i></p>	Understanding your target audience		
<p><i>“So if the goal is to have people think about your brand, that could be one intention.”</i></p> <p><i>“With a lot of the design things, it really depends on what you want.”</i></p>	Understanding your intention		

Quotes	First order concepts	Second order themes	Aggregate dimension
<i>“If you still have a connection and can think critically about it, you should realise that it is a game.”</i>	Designing campaigns		
<i>“Similar to the Gravity Falls ARG, I can’t just fly to Japan. I think, you need to design it with your community in mind.”</i>			
<i>“You should not just throw it in there, you create a focus group and test it. Then you learn new things and you can actually shape it towards something that you are happy with.”</i>	Testing		

Table B1: The data structure as a table complete with quotes