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Gamification across borders: The impact of culture

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It would be reductive to see this study as a conclusion to only a Master's Degree. It is the ending note of a path of higher education that started more than six years ago. I have been fortunate enough to meet great and inspiring figures along the way, and directly or indirectly, they all have contributed to this piece of work.

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Abstract

Engagement and motivation in the workplace have always been major elements at stake, and among other tools, gamification, widely defined as the use of game design elements in non-game contexts, intends to add another layer to the conventional way of working by calling for the inherent attraction of human-beings for play. However, even if gamification studies tend to agree on a concept of *meaningful* gamification that should be designed with the user in focus to fit one's characteristics, needs and preferences, research has not yet raised the potential importance of culture as a central area of focus when designing gamification. It is the intent of this thesis to study gamification consulting companies working with businesses located in different national markets to assess the extent to which culture impacts their working processes in an International Business perspective. After conducting several interviews with professionals, this study managed to generate findings that prove the importance of culture when creating gamified solutions in an international setting. Findings that even showed distinctions between respondents on how organizational and national culture impact their process differently.

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Introduction

This chapter provides an introduction to the study that follows, starting by giving some background to the subject. In order to introduce the purpose of this study, a problem discussion will take place with the identified research gaps, preceding the research question the study will give answers to. Finally, the delimitations of the study will be indicated and an overall outline will be provided to the reader.

Background

Studies have consistently shown that motivated and engaged teams are crucial for businesses. One of them, focused on the US workforce, concluded that engaged teams can grow profits three times faster, are 87% less likely to leave the company while an unengaged employee is, supposedly, costing 34% more than an engaged one (Rockwood, 2016). However, engaged workers tend to be scarce commodities, accounting for only 33.1% of the US workforce according to Gallup (2017). And this engagement crisis is not expected to resolve itself anytime soon when looking at Gallup's report *"How Millennials Want to Work and Live"*. Indeed, this number drops to 29% when focusing on the US workers born between 1980 and 1996, generation accounting for 38% of the US workforce currently and expected to make up for 75% of it in 2025 (Gallup, 2016). The mechanics of gamification, its fun (even addictive) and emotional engaging aspects seem to provide elements that encourage individual motivation at work (Pedeira, Garcia, Brisaboa & Piattini, 2015; Kalinauskas, 2014; Yee, 2006). Thus, one of the solutions that is being offered these last couple of years is to *'gamify'* work and careers to make them more engaging on an everyday basis but also in the long term (Jenkins, 2017).

Problem discussion

Gamification, since the first use of the term in 2008 (Terrill, 2008), has been describing the *"use of elements of game design in non-game contexts, products and services to motivate desired behaviors"* (Deterding, 2012, p.14). Often linked to features like points, leaderboards and badges, they only make for a part of what the entity of *'elements of game design'* covers to provide ways to trigger a given behavior in a certain target user. Outside of the working

environment, the rise in popularity of digital games as a manner to engage individuals has also led a growing number of universities to develop digital design and interactive media courses for their students in undergraduate courses (Dickey, 2011). Gamification has been applied in many *'non-game contexts'* of different natures, like education but also health management (Johnson, Deterding, Kuhn, Staneva, Stoyanov & Hides, 2016; Brown, O'Neil, Van Woerden, Eslambolchilar, Jones & John, 2016), sustainability (Johnson, Horton, Mulcahy & Foth, 2017), computer science studies (Boyle, Hainey, Connolly, Gray, Earp, Ott, Lim, Ninaus, Ribeiro & Pereira, 2016), finance, productivity and others (Deterding, Dixon, Khaled & Nacke, 2011). As for the purpose of gamification, *'motivating desired behaviors'*, it depends on the situation at hand as well as the nature of the target user. When taking the example of a business, gamification can be used to accommodate customers as much as employees, in objectives of information, engagement, productivity, learning performance, etc. By implementing some of the inherent fun human-beings find into games (Huizinga, 1949) into unlikely contexts, gamification tends to enrich the experience of the target users and sway its users towards a mindset where the mental distance between them and the desired action/result — *desired* by the perpetrator of the gamification thereof — seems reduced.

Although gamification is only one of numerous factors an individual can be influenced by, scholars seem to agree on its positive effects on motivation and creativity, where they have been discussed in the extant systematic review of gamification literature. But even if gamification has been gaining increasing acknowledgements in various fields, scholars in general agree that because gamification is a relatively new concept, key theoretical and conceptual understanding remain underdeveloped (Johnson *et al.*, 2017), and that there remains a gap in further research in particular, on the design of gamification in itself that could potentially engage groups of individuals that share certain sets of values, working and living contexts (Kalinauskas, 2014).

Scholastic literature with regards to gamification design seems to point towards the fact that gamification should not be considered to be *'one-size-fits-all'* (Nacke & Deterding, 2017; Mora, Riera, González & Arnedo-Moreno, 2015; Ruhi, 2015). Instead, a user-centered design methodology is preferred in many instances (Morschheuser, Werder, Hamari & Abe, 2017; Seaborn & Fels, 2014; Nicholson, 2014; Marache-Francisco & Brangier, 2013a; Nicholson, 2012) in order to customize the experience to the target user. If this segmentation has been the object of interest of several scholars looking at the gaming industry and technology

acceptance on variables such as player typologies (Tuunanen & Hamari, 2012; Bartle, 1996), gender or age (Koivisto & Hamari, 2014; Wang, Wu & Wang, 2009; Williams, Yee & Caplan, 2008; Arning & Ziefle, 2007; Czaja, Charness, Fisk, Hertzog, Nair, Rogers & Sharit, 2006; Ahuja & Thatcher, 2005; Morris & Venkatesh, 2000), very few current studies, if any, take into consideration culture as an aspect of reference, even if it has been mentioned several times that research linking culture to those phenomena could be valuable (Hartmann, 2006; Sun & Zhang, 2006).

In order to optimize gamification, it has to be designed in a way that fits the individual's characteristics. Scholars have introduced the term of '*meaningful* gamification' to encompass this idea on which I will come back further in the study (Hamari, Shernoff, Rowe, Coller, Asbell-Clarke & Edwards, 2015; Ruhi, 2015; Nicholson, 2014; Nicholson, 2012; Marache-Francisco & Brangier, 2013a; Seaborn & Fels, 2014; Marache-Francisco & Brangier, 2013b; Landers, 2014; Kappen & Nacke, 2013). By putting the target user in the center of the design of gamification and adapting it to its characteristics and preferences, meaningful gamification is supposed to fit the target user better to ensure a better response to it (Kim, 2011). The characteristics that have been looked at so far are mainly player types (Bartle, 1996) and gender or age (Koivisto & Hamari, 2014).

However, no research has been found studying gamification when done internationally specifically, considering and weighing the importance of the existing cultural differences in an International Business perspective, which constitutes the research gap I intend to investigate.

Purpose and research question

The purpose of this study is to investigate on the working process of gamification consulting companies when working with businesses located in other national markets and assess the impact of culture in this process, therefore trying to fill the current research gap observed and assess to what extent culture affects their process. To support the purpose of this study, the following research question will serve as red thread:

How do gamification consulting companies work with businesses located in other national markets? To what extent does culture impact their processes?

To do so, gamification designers, CEOs and culture management specialists from different countries have been interviewed to gather information on their working process when dealing with global clients and/or clients located in other national markets than theirs, putting an emphasis on the cross-cultural aspects the business.

Delimitations

The applied research approach, that is outlined in the third chapter of this thesis, implies a few limitations which the reader might want to be made aware of to understand properly the extent of the analysis and conclusions to follow.

The first limitation that needs to be mentioned is the limited size of the sample of respondents. Indeed, to a total of nine respondents, it is important to note that the reality depicted through these nine interviews might not be generalizable at will and the results collected might very much be common to this sample alone.

Another limitation concerning the sample of respondents is their origin. With five respondents working in the USA and four others working in Western and Northern Europe, the reader might want to consider that some convergent insights might be influenced by the fact that the respondents are so-called *'Westerners'* and that the date might consequently suffer from certain inherent biases.

Research outline

This thesis counts six chapters, including this introductory one. Following this, a literature review is presented, portraying previous conducted research in the relevant fields the research question implies. First, a look will be taken at gamification studies as a whole to evaluate how the topic has been studied up until now. The second part will focus on the second major field tackled by this study and will inform the reader about the cultural theories through which the empirical data has been treated. The third and last part of this literature review will introduce

insights related to motivational studies that have been added post-data collection to accommodate some of the findings and justify their analysis.

The third chapter of this thesis will inform the reader of the methodology adopted to collect and analyze the data in order to investigate and provide elements of answer to the research question in focus.

In the fourth chapter, the empirical findings will be presented in a structured way in order to provide the reader with an overview of the findings in regards to the research question.

In the fifth chapter, the findings previously reported will be analyzed in the light of the conceptual framework provided in chapter two in the objective of generating relevant arguments and answer the research question.

Lastly, the sixth and final chapter will provide a summary that will review the study as a whole and answer concisely to the research question based on the arguments developed from the analysis of the empirical findings. To emphasize on the outcomes of this study, the different implications both theoretical and practical will be clarified, all this while indicating the limitations of those outcomes in another subpart and finishing by presenting suggestions for potential further research.

Literature review

This chapter presents an overview of previously conducted research in several fields that constitute the conceptual framework through which the empirical findings will be analyzed later on. A first part will look at gamification studies as a whole to portray a faithful picture of how the topic has been defined and explained up until now. The second part will focus on major cultural theories, both on national and organizational aspects, as they are the ones most relevant to treat the data collected. Finally, the third part will complete the triptych of this conceptual framework by looking at some theories within motivational studies deemed relevant for the purpose of this study.

Gamification studies

Gamification and meaningful gamification

The early years of research on gamification, that go back to 2008 as previously mentioned (Terrill, 2008), started a quest for a definition that would create consensus among scholars. Before even producing a definition, James Currier (2008) found reasons for the birth of gamification itself in the decline of medium such as TV and radio to influence behavior on a passive target to the benefit of *"contexts filled with game mechanics that directly induce people to take action"*. If the use of certain elements was central for a great majority of scholars to designate gamification, the origins of those elements differed from being *'game-design elements'* (Deterding, 2012; Deterding, Dixon, Khaled & Nacke, 2011b), *'video-game elements'* (Deterding, O'Hara, Sicart, Dixon & Nacke, 2011a), *'elements from the game world'* (Marache-Francisco & Brangier, 2012; Huotari & Hamari, 2012). However, several scholars prefered to see gamification rather as a process (Huotari & Hamari, 2016; Huotari & Hamari, 2012). Scholars also differed on what the use of those elements could lead to, from *"improving user experience (UX) and user engagement in non-game services and applications"* (Marache-Francisco & Brangier, 2012; Deterding *et al.*, 2011a), to motivating desired behaviors in general (Deterding, 2012; Marache-Francisco & Brangier, 2012). Finally, as indicated in a literature review executed by a cohort of four scholars (Mora *et al.*, 2015), the most widespread definition of gamification comes from Deterding *et al.* (2011b, p.1) describing it as *"the use of game design elements in non-game contexts"*. Nevertheless, for the sake of this thesis, I deem important to choose instead as a reference the definition given

by Sebastian Deterding (2012) alone, adding to this definition the underlying objective of behavioural change through motivation and engagement that gamification strives and exists for.

However, this quest for consensus around gamification was not without its criticism like the one formulated by Ian Bogost (2011), discussing the etymological discrepancies of the word itself between the definitions being given and what the author saw in the application of the concept practically at the time. Bogost reckoned that gamification as it stood at the time, had too little to do with games to deserve the prefix *gam-* and its desired effects remained too complex for the suffix *-fication* to be applied, therefore naturally misguiding its audience towards an overly simplistic concept (ibid). Concept that should be renamed *exploitationware* to match the actual use of the concept at the time; use perverted, according to the author, by marketers and consultants willing to leverage monetizable APIs, one-size-fits-all, easily repeatable and, therefore, profitable solutions to complex engagement problems (ibid).

Beyond the analysis of the word, Bogost (2011) gave rise to a point that has been briefly mentioned in the introductory part of this study. Indeed, gamification, in its early stages, showed signs of standardization that could translate to a poor understanding of the concept itself. And without stating it clearly, other scholars agreed with Bogost's vision that gamification should not be a one-size-fits-all solution in any way. Deterding (2012, p.16) points out that individuals and contexts differ, taking the example of social status being a potential reward of gamification and explaining that *"people differ in the degree to which they seek and advertise status"* and hopes later that research will find ways to create systems using psychological processes by taking into account *"contexts, meanings and individual differences"*. Huotari and Hamari (2012) acknowledged that the perceived value in a game service, defined as the experiential outcome for the player, depends on the player's own individual perception and characteristics. Some scholars, (Armstrong, Ferrell, Collmus & Landers, 2016a, p.675), when looking at leaderboards specifically, hint that future research needs to specify *"in which situations competitive elements are appropriate for implementation"*. Those words calling for a more refined design of gamification found resonance in the raising of a concept today known as '*meaningful'* gamification.

Because yes, after a few years of discussion on defining *what* is gamification, what elements it works with and what effects to expect from it, research naturally began to look at *how* to design gamification in the first place. Quite significantly, the body of research shifted from

2012 on to emphasize on the importance of designing around the user rather than the organization or the objective itself. Nicholson (2012, p.5) formulated a definition of meaningful gamification that encapsulates well this aspect: *"Meaningful gamification is the integration of user-centered game design elements into non-game contexts."*. At the basis of this reasoning, a realization shared by many scholars that there is no unique gamification system or design that can fit all users (Morschheuser *et al.*, 2017; Ruhi, 2015; Hamari, 2015; Nicholson, 2014; Koivisto & Hamari, 2014; Hamari, Koivisto & Sarsa, 2014; Marache-Francisco & Brangier, 2013a; Nicholson, 2012). The criticism of meaning*less* gamification lies in part in its short-term viability. Using gamification as a simple reward system based on the tasks to be done at hand regardless of the identity of the supposed participant is only a limited vision of the possibilities of gamification. As Nicholson (2012, p.1) noted, *"reward systems do work, as long as the rewards keep coming [...] When the rewards stop, however, the behavior will likely stop also **unless the subject has found some other reason to continue the behavior**."*.

The whole idea of meaningful gamification resides in the latter, manually bold typed part of this citation above, as meaning stands, for many scholars, as one of the features that could help the subject to find reasons to keep the triggered behavior regardless of rewards waiting or not. Jane McGonigal in her book *Reality is Broken* (2011, p.97) defines meaning as the *"feeling that we're a part of something bigger than ourselves"* which she also suggests that human-beings all crave for more of in their lives. But without even refuting McGonigal's words, the difficulty lies in the fact that, as Nicholson (2014) observed, the concept of what is meaningful is defined by each individual, making the task of designing something meaningful to a group of people fairly complex. Like Nicholson (2012, p.5) indicated, if meaningless gamification is characterized by being the product of *"organization-centered design"*, meaningful gamification results from a user-centered design. But having a discussion on how to create meaning for individuals in the objective of engaging or motivating them leads gamification, initially seen as a gaming feature, into a needed debate to understand the psychological cues behind motivation itself.

Gamification, motivation and engagement

Nicholson (2012, p.1) stated it clearly, *"underlying the concept of gamification is motivation"*, and a popular motivation theory, often used as foundation in describing gamification, was formulated for the first time by Deci and Ryan (1985) under the name of Self-Determination Theory (SDT) (see Figure 1 below). The main take of this theory is that we can distinguish two types of motivation depending on their reasons or goals leading to action:

→ Intrinsic motivation, defined by the authors as the execution of an activity for the inherent satisfaction of it rather than a separable consequence. An intrinsically motivated person acts for the fun or challenge of the activity instead of external pressures or rewards (Deci & Ryan, 2000).

→ Extrinsic motivation which, contrary to the previous type, characterizes the doing of an activity in order to attain a separable outcome. In that sense, an extrinsically motivated person uses the activity as a mean to an end rather than for the activity itself (Deci & Ryan, 2000).

A subtheory of SDT developed in 1985 as well, referred to as Organismic Integration Theory (OIT), mentioned a third type that I consider important to add in regards to this study. OIT also includes amotivation, which describes *"the state of lacking an intention to act"*, found to occur in absence of valuing an activity, not feeling competent to accomplish the action or not believing in the potential yield of the desired outcome according to the authors (ibid).

Figure 1. *Taxonomy of human motivation*, inspired from Deci & Ryan (2000).
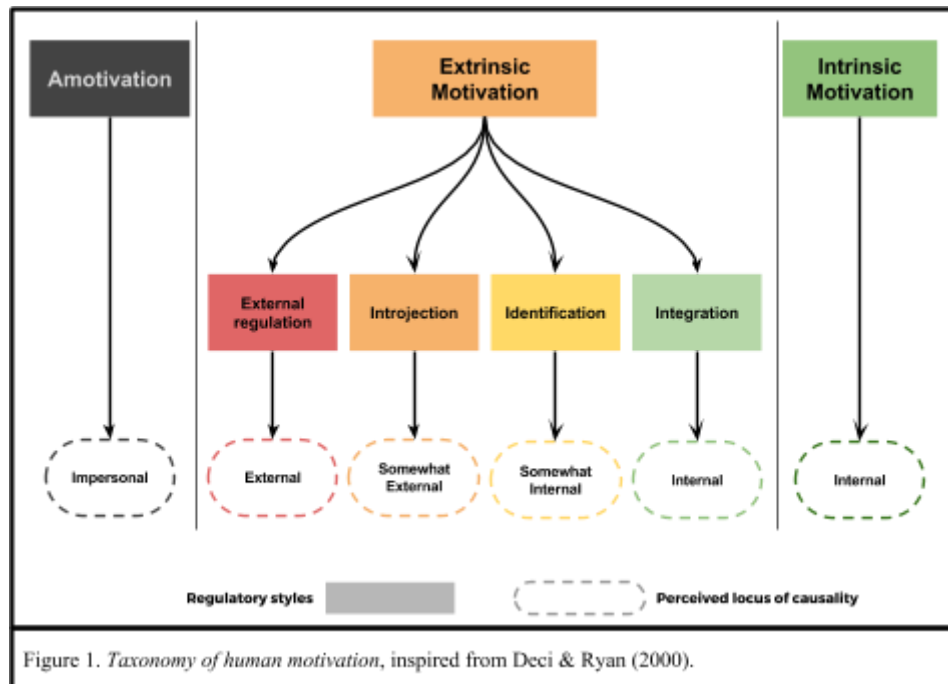
The link of this theory with gamification lies in the paradox existing between the objective of gamification which is building intrinsic motivation ― internalized processes with long-term positive effects ― in order to engage the target, while having recourse to different kinds of rewards that could be identified as factors of extrinsic motivation. The paradox reinforces when Deci and Ryan (2000) indicate that extrinsic rewards can undermine intrinsic motivation. The beginning of a solution is depicted in a later study of the same duo (Deci & Ryan, 2004) that finds out that three things in particular were connected with intrinsic motivation:

➔ Mastery, defined as a situation where a participant feels confident about their knowledge or ability regarding the task in question.

➔ Autonomy, defined as a situation where participants can choose their own paths to the communicated outcome to develop a sense of control over the experience.

➔ Relatedness, defined as the feeling of a participant knowing that he/she is not alone but rather engaged in the same fashion as others.

By chasing those three features and making sure that they are an integral part of the gamification design, designers can secure more easily the creation of intrinsic motivation in the subjects (Nicholson, 2012). However, it is important to stress a few limitations given by Deci and Ryan (2000) themselves: first, intrinsic motivation will occur only for *"activities*

that hold intrinsic interest for an individual" (p.59) in the first place and it is only reality that *"people are intrinsically motivated for some activities and not others, and not everyone is intrinsically motivated for any particular task"* (p.56); second, people's motivation may vary *"not only in level of motivation (i.e., how much motivation), but also in the orientation of that motivation (i.e., what type of motivation)"* (p.54). Those limitations open the door to concepts such as situational relevance and situated motivational affordance to look closer into those potentially different levels and orientations of motivation between individuals.

Situational relevance is a concept developed by Nicholson (2012) to describe the existing relation between the motivation an individual can show on a particular topic and his/her own background regarding this topic. In other words, as Seaborn and Fels (2014) put it, situational relevance concerns the decisions made by the user regarding what is meaningful or not. Nicholson (2012) makes the case that for gamification to be effective — and create intrinsic motivation — it has to be linked to the target user's background. Illustrating it with the example of a gamified system to encourage energy savings in a hybrid vehicle, Nicholson shows that if the concept of energy saving does not concern internally a particular user in the first place, this gamified system will not be relevant to this user and will ultimately fail creating intrinsic motivation (ibid).

Finally, situated motivational affordance is a contribution of Deterding (2011) to the underlying concept of motivational affordance that is itself very close, if not similar, to situational relevance that we just explained. Other than the background of the user, situated motivational affordance pays attention to the context in which a given gamification system is introduced (ibid). More specifically, Deterding stresses the challenges that gamification in an organizational context (see Figure 2 below) can present as the appeal of games, as being voluntary and free of consequences, can disappear if gamification is imposed and tied to cash incentives within an organizational frame (ibid). Both conditions that could impact negatively the autonomy of the user, presented as one of the three dimensions that build intrinsic motivation in SDT.

Figure 2. *Difficulties of gamification in an organizational context*, inspired from Deterding (2011).
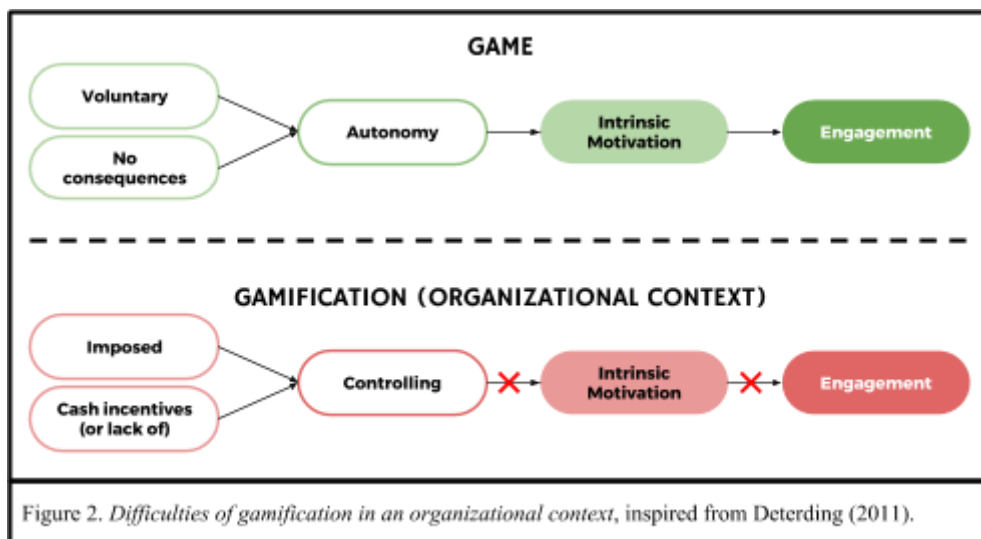
Gamification design frameworks

Research, along the few years it developed on the topic of gamification, started to explore progressively more *how* to design gamification rather than *what* was gamification, issuing a number of different frameworks created to assist professionals in how to approach gamification in their respective fields. In a matter of synthesis, this study will mention only a few that turn out to be the most popular as they served as foundation for many others.

The MDA framework

The first framework related to gamification, but more broadly to game design, that needs to be mentioned is the Mechanics-Dynamics-Aesthetics (MDA) framework. Developed by Hunicke, LeBlanc and Zubek (2004), this framework introduces notions that are central to many, if not all, gamification design frameworks. For starters, the MDA framework breaks down games into three components, namely rules, system and fun, which each have their respective design element, being mechanics, dynamics and aesthetics, in that specific order (see Figure 6 below). Mechanics, that are defined as *"the particular components of the game, at the level of data representation and algorithms"* (Hunicke *et al.*, 2004, p.2), can be understood as the fixed parameters that make the frame in which the game happens. Dynamics, defined as *"the run-time behavior of the mechanics acting on player inputs and each others' outputs over time"* (ibid, p.2), in other words how the game evolves as it is being used and played by the users. Finally, aesthetics are defined as *"the desirable emotional*

responses evoked in the player, when she interacts with the game system" (ibid, p.2). One fundamental take of the study is that game designers and game consumers have two opposite perspectives regarding the game that link them: 1) the game designer works his/her way up naturally from Mechanics/rules, to Dynamics/system and finally to Aesthetics/fun to design and create the game while; 2) consumers experience and look for the Aesthetics first, understand the Dynamics of the game then, to finally make their own perspective of the Mechanics surrounding the game (ibid). Reflection that results with Hunicke *et al.* (2004, p.2) noting and recommending that *"thinking about the player encourages experience-driven (as opposed to feature-driven) design"* and increases the chances for a game to be successful in satisfying the target user.

Figure 3. *The MDA framework*, inspired from Hunicke et al. (2004).
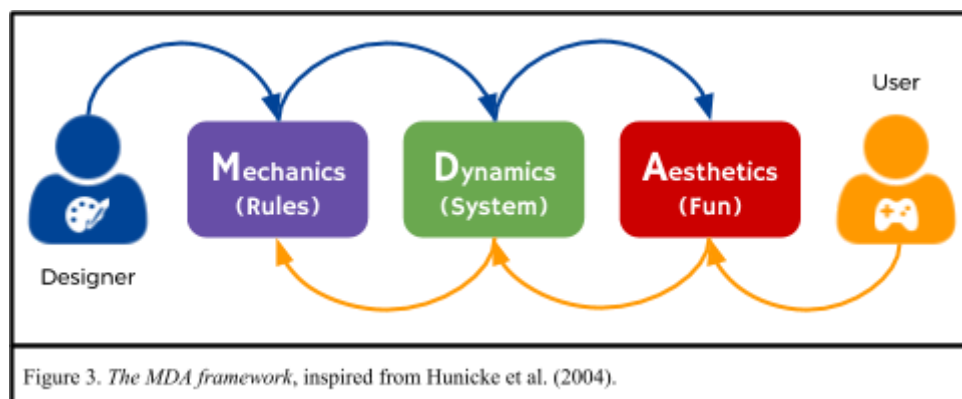
The User-Centered Design

The work of Hunicke *et al.* (2004) inspired a lot of scholars to develop frameworks that begin where it stopped, like Kumar and Herger (2013) who establish a player-centered methodology or user-centered design. Explained in their own words, *"User Centered Design is a philosophy that puts the user, and their goals, at the center of the design and development process"* (ibid, p.27) in order to design a product/service as close to the user's needs as possible to improve the probability of success. Indeed, Morschheuser *et al.* (2017, p.9) indicated the item *"Understand the user needs, motivation and behavior, as well as the characteristics of the context"* was the most crucial one, pointed out in 72% of the literature they reviewed and 76% of the interviews they conducted. To follow this methodology, Kumar and Herger (2013) depict six steps: 1) understanding the player; 2) understanding the mission; 3) understanding human motivation; 4) applying game mechanics; 5)

managing/monitoring/measuring; 6) considering legal and ethical issues. In the light of this study, I deem important to highlight and deepen two of those steps:

➔ In *'understanding the player'*, which is the first and most crucial step, Kumar and Herger (2013) explain that it goes by identifying as much as possible the individual and understand his/her context. If they approach things like demographics, Kumar and Herger also touch upon *"work culture"* as a variable that should be taken into account when building up the *"player persona"* (ibid). Based on four elements, work culture can be either formal or informal, competitive or cooperative, structured or unstructured, individual or collective achievement driven (ibid). It is fair to consider that those elements of work culture, even if they have corporate ties to the organization and/or the industry, might also have links to national culture as a whole, and this study aims at elaborating on those.

➔ By specifying *'understanding human motivation'* as the third step of their methodology, Kumar and Herger (2013) stress the importance already mentioned earlier in this study of motivational theories and psychology to understand gamification. They indeed bring elements like intrinsic/extrinsic motivation or *"flow"*, referring to Csikszentmihalyi's work (1990) that developed a linear model displaying a zone of flow, translating into engagement, in function of difficulty of the activity and time/skill required to succeed (see Figure 4 below).

Figure 4. *The concept of flow*, inspired from Csikszentmihalyi (1990).
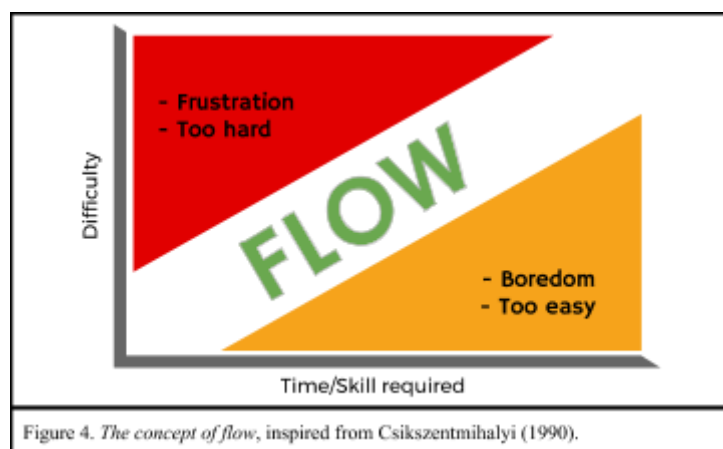
The last gamification design framework that seems interesting to add, in part because of its popularity, is the 6D framework exposed by Werbach and Hunter (2012). This framework stands for: 1) **D**efine business objectives; 2) **D**elineate target behaviors; 3) **D**escribe your players; 4) **D**evise activity loops; 5) **D**on't forget the fun and; 6) **D**eploy the appropriate tools (ibid). As popular this framework may be, it is interesting to observe the fact that here, the players are only mentioned as a third step, two spots behind the business objectives, making this framework a much more business-centered one. So much so that one step itself is dedicated to pay additional attention to making it fun for the users ― as fifth step on six. I would believe that a framework that focuses on players/users from the beginning integrates better that information, which is more efficient to trigger the behaviors mentioned as second step and ultimately, the business objectives mentioned as first step. As a matter of fact, Mora *et al.* (2015) conducted a major literature review around gamification design frameworks which showed that most of the frameworks they observed were Human-based, putting the individual at the centre of the design, therefore reinforcing the assessment of how important psychology should be in the design process.

Segmentation in gamification

As a consensus is growing towards understanding gamification not as a one-size-fits-all solution but more as a tailored element designed for a specific target, some scholars studied different ways to segment target users among groups. The objective being to adapt gamification design to a given target gathered around common characteristics, much like how segmentation works in marketing for example. Three main segmentations have been studied so far, namely by player-types, gender and age.

Kim (2011) uses Bartle's player typology (1996) to assist professionals into adapting gamification design to players that have different perspectives and objectives on games. Richard Bartle studied Multi-User Dungeons games (MUDs) and, looking at how players

were approaching and engaging in multiplayer environments, concluded that four types of players existed (see Figure 5 below).

Bartle (1996) describes those profiles as such:

Figure 5. *Player-types in MUDs*, inspired from Bartle (1996).

➔ *Killers:* they like to act on players, show their superiority and care about their reputation and skills.

➔ *Achievers:* they like to act on the world, earn rewards or status and enjoy difficulty to reach their goals.

➔ *Socializers:* they like to interact with players, create friendships and influence through their characters.

➔ *Explorers:* they like to interact with the world, value the knowledge acquisition aspect of the game and like to discover all possibilities.

Inspiring herself from this, Kim (2011) adapted Bartle's typology to a broader scenery than MUDs by formulating her social action matrix (see Figure 6 below).

By defining those four profiles, Kim (2014) explains what motivates different types of players. Explorers, much like Bartle's definition, are curious, like to discover and poke at systems to gain as much knowledge as they can. Creators love to personalize their experience, express their uniqueness and enjoy being recognized for it. Competitors like to stack up skills and rewards so that their mastery can be benchmarked to the rest of the group. Finally, Collaborators enjoy the collaborative impact and the team feeling that emanate from the achievement of a greater goal. Knowing about those

Figure 6. *Social action matrix*, inspired from Kim (2011).
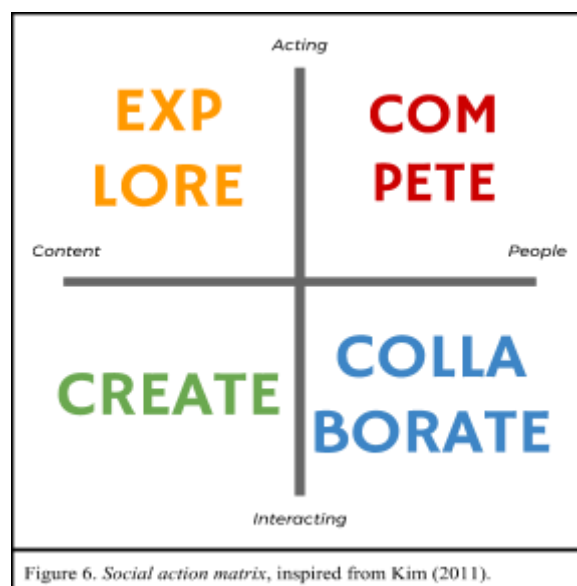
profiles and their characteristics hints to what type of gamification might or might not appeal to each target group. Competitors, for example, should thrive around mechanics that involve different types of rankings and effective feedbacks on their performance. On the other hand, if the target appears to be more explorative, it's not much about competing against others but rather lose yourself in an experience, a space or a system that allows a certain degree of freedom where the experience is not scripted but rather co-created with the player him/herself.

However, Kim fails to go further in her reasoning as those suggestions are only mine, based on her findings and indications. Another issue with this segmentation is that even if it displays profiles that have some common characteristics in the way they use a game, it does not help us knowing what people match with which profile. Only briefly Kim mentioned orally at a Casual Connect conference in 2011 that competitors are more likely to be a *"male competitive young audience"* (Kim, 2011), but nothing else of the kind is explained for other profiles, which limits drastically the reach and efficient use of this matrix.

Gender and age

A few studies looked at gender as a potential variable to take into consideration when it comes to motivation around games and technology in general. Koivisto and Hamari (2014) who took a good look at demographic differences in perceived benefits from gamification cite Hoffman (1972) several times to bring up her findings according to which men would be in general more task- and achievement-oriented than women. Findings that also point out that women are more influenced, and therefore motivated, by affiliation needs or social relations in general (ibid). Morris and Venkatesh (2000), who looked at technology adoption, confirmed the latter argument, indicating that women's technology adoption decisions are more affected by social factors than men. Ahuja and Thatcher (2005) go even further putting forward that women are less likely to enjoy and use computers, phenomenon linked by several scholars to lower perceptions of self-efficacy and computer aptitudes coupled with computer anxiety among women. A reason why, for Morris and Venkatesh (2000), ease of use appears to have greater influence for women, especially in an organizational context. Findings from Williams *et al.* (2008) and Hartmann and Klimmt (2006) merge in showing that if women are more motivated by social factors and immersion, men seem to feel a greater need for winning, expressing then more achievement-oriented motivations and competitiveness. Softening those

results, Gefen and Straub (1997) wished to point out that those differences might be explained in part by cultural considerations of the Information Technologies' (IT) field to be male-dominated.

However, Koivisto and Hamari (2014, p.184), bringing the debate back on gamification, take from their review that, as women might become more engaged in the social activity, *"social features might be essential especially when one seeks to acquire female users"*. It is important to note that other articles contradict somewhat those statements, as in Wang *et al.* (2009) that shows results where social influence appears to be significant for men and insignificant for women in the case of mobile learning, or in Yee (2006, p.774), showing that male players *"socialize just as much as female players, but are looking for very different things in those relationships"* when looking at online gaming. In the light of this study, a very interesting limit is pushed forward by Hartmann and Klimmt (2006, p.16) who looked at females' dislikes in computer games: *"as the studies were conducted in Germany and gender roles as well as motivations are **likely to be affected by culture**, the findings first and foremost contribute to an explanation of the gender gap in video game involvement among the German population"*.

The last try at segmentation that I have been able to observe around gamification is about age. Studies have been looking at age and how younger and older users approached the same technology, and quite straightforward results were concluded. It has been observed that older generations happen to feel lower self-efficacy and higher computer anxiety than younger ones (Czaja *et al.*, 2006), resulting in older users generally valuing ease of use more than usefulness in technology, contrary to younger users (Arning & Ziefle, 2007). Morris, Venkatesh and Ackerman (2005) conclude consequently that younger employees might seek to be more autonomous when it comes to the adoption of new technology than older ones. However, Koivisto and Hamari (2014) note that if younger people might be more appealed by playful interactions within gamification, they tend to get bored faster than more mature users. One element of explanation, brought up by Morris and Venkatesh (2000), might be the early age exposure of younger generations to IT, helping habituation before entering a workplace. When looking for practical implications of those findings in the field of gamification, Koivisto and Hamari (2014) recommend to make an effort into designing tools that enable older generations to go past their low sense of self-efficacy towards technology use while
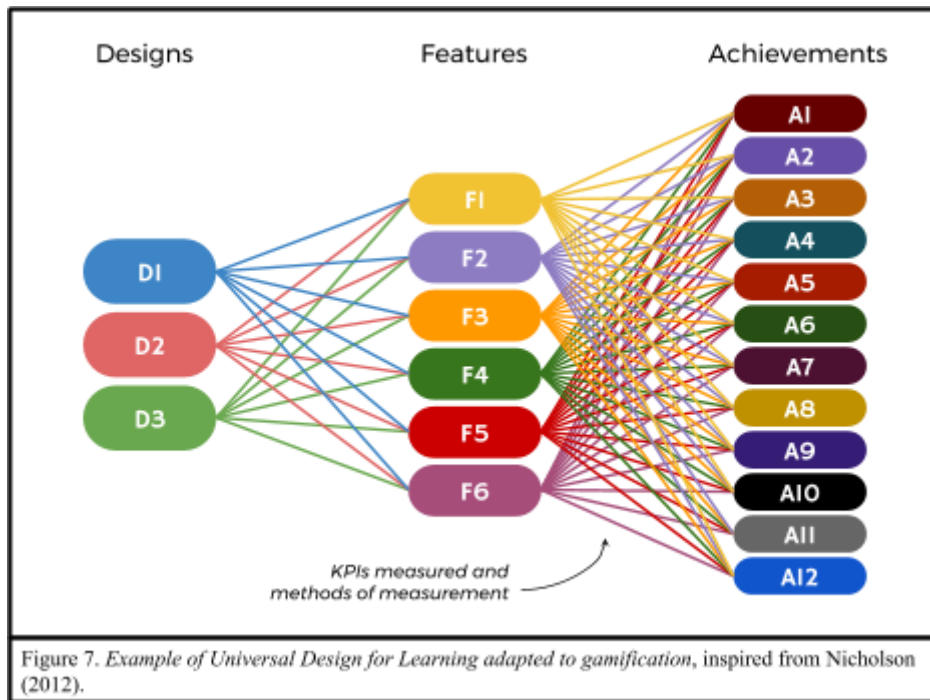
granting the younger generations a playful but complex experience to build sustainable engagement.
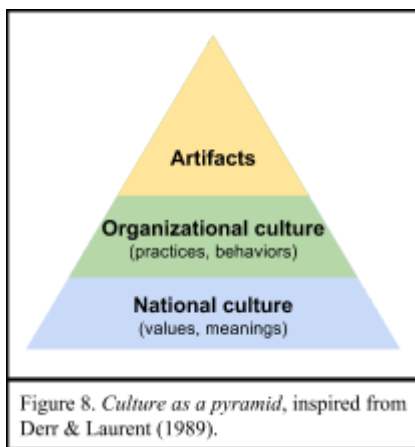
The Universal Design for Learning

It seems natural, after looking at how research has tried to find ways to segment target groups to have a more customized version of gamification, to conclude this part by a concept that has the ambition of customizing gamification, not to a target group, but to an individual. This concept was developed first by Rose and Meyer (2002) in the field of Education and recalibrated to accommodate the purpose of gamification later by Nicholson (2012). The Universal Design for Learning (UDL) is supposed to create content for students ― initially ― to be able to demonstrate learning in a variety of ways. By doing so, more students can relate to the same course, making it more *meaningful* to a larger audience. To do so, the UDL acts upon 3 dimensions (Rose & Meyer, 2002):

➔ The *'what'*, by providing different ways to present the content itself to the target users.

➔ The *'how'*, by providing different ways to showcase mastery of the content.

➔ The *'why'*, by providing freedom for the target users to internalize the content and find their own meaning in it.

The UDL makes the assessment that giving only one way to target users automatically excludes all the target users that do not fit with this exclusive way. That is the starting point of Nicholson (2012, p.3) when he adapts the UDL to gamification and more specifically to *meaningful* gamification: *"If users are allowed to demonstrate their mastery of an activity on only one way, then the system will not be meaningful to users who can perform activity but demonstrate it in a different way than what is measured"*. He adds that for a gamification system to make this possible, it has to comprise different paths leading to the same goals or letting the users themselves to set their own goals, achievements and ways to reach them. By doing so, Nicholson implies that a UDL-based gamification system should be as inclusive as possible by offering a very large amount of possible combinations for virtually any user to find his/her niche (see Figure 7 below). He also notes that creating such a system can be a real challenge but highlights the potential of co-creation of the design with the users to overcome it.

Figure 7. *Example of Universal Design for Learning adapted to gamification*, inspired from Nicholson (2012).

Cultural studies

Figure 8. *Culture as a pyramid*, inspired from Derr & Laurent (1989).

As this part is divided between national and organizational culture, it is important to comment briefly on the link that exists between them. Derr and Laurent (1989) exposed it quite clearly by showing that if we would to represent Culture as a pyramid, national culture would be at the base with shared meanings and values when organizational culture would come on top of it with practices and behaviors, both influencing each other to some extent (see Figure 8). The organizational culture often ends up being inspired from the national culture and is bound in that sense to respect some of the values and meanings shared in a given location, but on the other hand, the organizational culture can distort the national culture in the workplace, asking for different behaviors and imposing certain practices to people. Depending on how *'strong'* the organizational culture is, the extent of that influence can vary (ibid).

National culture

Hofstede's cultural dimensions theory

Initially based on questionnaires sent to around 117,000 IBM employees as part of the work of Geert Hofstede, who was working as manager of the personnel research department of IBM Europe in the 1960's, his cultural dimens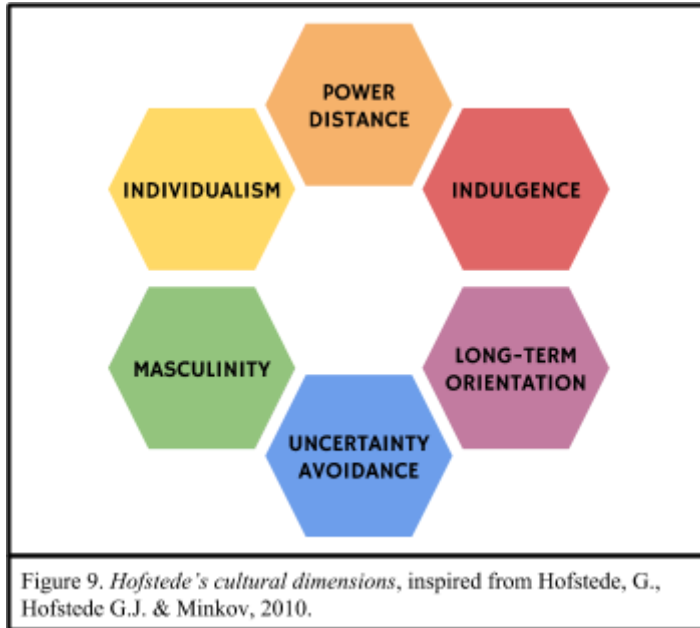ions theory depicted 4 major cultural dimensions at first, all indexed on a 100 score. To this core made of the power distance, individualism, uncertainty avoidance and masculinity of a culture, got added later the long term orientation as well as the indulgence dimensions in collaboration with Michael Minkov (Hofstede, G., Hofstede G.J. & Minkov, 2010) (see Figure 9 on the left):

Figure 9. *Hofstede's cultural dimensions*, inspired from Hofstede, G., Hofstede G.J. & Minkov, 2010.

➔ **Power Distance:** This dimension relates to how individuals in a society accept an unequal distribution of power among them. Countries in Asia and Latin America display the highest scores of power distance characterized by more hierarchical and important gaps of authority, while Germanic and Nordic countries tend to have the lowest scores in that dimension, resulting in flatter organizations and people considered as equal. (ibid)

➔ **Individualism:** This dimension portrays the strength of people's attachment to groups in the society they live in. Western countries are considered to be dominantly individualistic, valuing highly people's time, freedom and privacy. On the other end of the spectrum, Eastern countries and Latin and Central American countries score the lowest, defined then as collectivist, valuing the group harmony over the individual well-being and showing an emphasis for mastery and more intrinsic rewards. (ibid)

➔ **Masculinity:** This dimension encompasses how the roles of men and women are expected to overlap as well as the values that are consequently recognized in the

society. Masculine societies like in Japan, Hungary or Austria display societies where men and women have very defined and separate roles, hold on to money and achievements as indicators of success and characteristics such as being strong, assertive or fast are seen to be positive. On the other hand, Nordic societies like Swedish, Finnish or Danish ones are said to be feminine, showing much more overlap between the roles of men and women, focusing on quality of life as an ultimate goal and praising qualities such as modesty and honesty. (ibid)

➔ *Uncertainty Avoidance:* This dimension quantifies how much people handle the unexpected and the anxiety that comes with it. The countries at the top of that index, Greece, Portugal or Guatemala, are characterized by having societies that try to make life as predictable as possible, often through laws and procedures to define one truth that everyone is expected to respect. However, in countries like Singapore, Denmark or Sweden, novelty and innovation are more welcome and encouraged, creating a more inclusive and free-flowing society in general. (ibid)

➔ *Long-term Orientation (Pragmatism):* This dimension, added to the model during the 1990's, displays the propensity for some societies to anticipate the future or more act in the present. Asian countries like China, Hong Kong, Taiwan, South Korea or Japan are typical examples of more long-term oriented, pragmatic societies, characterized by modesty and a major emphasis on virtues and education as positive markers among other things. However, the lowest scores are often found in African countries such as Sierra Leone, Nigeria, Ghana or Zambia, with more emphasis on traditions, personal convictions with actions like compromising seen as weakness, all contributing to societies that are more short-term oriented or normative. (ibid)

➔ *Indulgence:* This dimension, also added later on, portrays how different societies allow fun and enjoying life and similar impulses as something open and public as well as socially accepted or not. Countries that score low on this index, called restrained cultures, like Russia, India, China or Algeria are known to present strong and strict social norms that rub off on a much more controlled and rigid behavior to conform to the social rules in place. On the other end, in cultures in countries like the US, Sweden, Australia or Brazil are much more indulgent, emphasizing on free speech and

having in focus to reach happiness in life at a personal level and celebrating it freely. (ibid)

Trompenaars' model of national culture differences

Based on questionnaires sent to about 46,000 managers in 40 countries, Trompenaars' model of national culture differences depicts seven cultural dimensions (Trompenaars & Hampden-Turner, 1997) (see Figure 10 below):

Figure 10. *The Seven Dimensions of Culture*, inspired from Trompenaars & Hampden-Turner (1997).
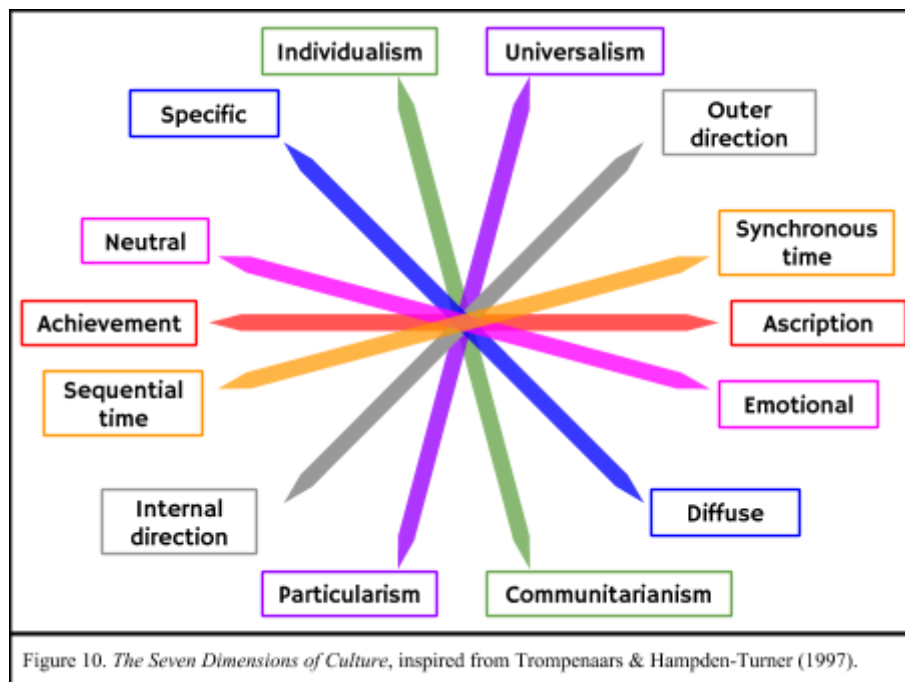
➔ ***Individualism // Communitarianism:*** This dimension has to do with the consideration of self as individualists relate to themselves as individuals, take their own decisions and believe in personal freedom, while communitarians see themselves as part of a group which provides safety in exchange for loyalty. Individualism is characteristic of the United States (US,) Canada, the United Kingdom (UK), Scandinavia, New Zealand, Australia, and Switzerland as well as ex-Czechoslovakian countries and Mexico. On the other side, communitarianism can be mostly found in countries such as Germany, China, France, Japan, and Singapore as well as most of Africa and Latin America. The authors advise to praise individual performance, give autonomy and allowing people to be creative and explore their own way if individualists are concerned. However, if the target is communitarian, group

performance is to be praised, or privately if individuals, avoiding favoritism and allowing people to involve other individuals in the decision-making process. (ibid)

➔ *Universalism // Particularism:* Universalists believe that ideas, rules and practices can be applied everywhere without modification, while particularists believe that circumstances affect how ideas and practices should be applied. The scholars indicate that cultures from the US, Canada, the UK, the Netherlands, Germany, Scandinavia, New Zealand, Australia or Switzerland are known to be dominantly universalist while cultures of Latin America, Indonesia, China, South Korea, and the former Soviet Union are more particularists. When it comes to advice, the scholars recommend to work with universalists by tying work with their values and beliefs, providing clear instructions, giving them time to make decisions and creating an objective process to make decisions accordingly. If particularists are concerned, they recommend to give autonomy, be flexible on decision-making, build relationships and always consider people's needs. (ibid)

➔ *Specific // Diffuse:* This dimension relates to how much professional and personal life overlap or not. Specific cultures have a clear cut between work and personal life when diffuse ones observe much more of an overlap between the two spheres. According to the authors' research, countries like the US, the UK, Switzerland, Germany, in Scandinavia, and the Netherlands are specific, contrary to others like Argentina, Spain, Russia, India, and China that are diffuse for example. When working with people from a specific culture, the scholars recommend being direct, prioritizing objectives instead of relationships, providing clear instructions and respecting the separation between home and work. If it's about people from diffuse cultures the focus should be put on relationships before the business objectives and considering that people will probably work at home as well as handle personal matters at work. (ibid)

➔ *Neutral // Affective:* A neutral culture is characterized by emotions under control and decisions led by reason while an affective culture expresses more openly and naturally emotions and relies more on feelings and spontaneity. Fairly neutral cultures can be found mostly in the UK, Sweden, the Netherlands, Finland, Japan and Germany and affective ones are meant to be in places like Italy, France, Spain, Israel,

and countries in Latin and Central America. Working with neutral cultures demands to pay a lot of attention to body language and people's reactions, and staying professional without getting too formal. On the other hand, if dealing with affective cultures, building trust, paying attention to convey a positive attitude and using emotion to communicate objectives are all suggested by the authors. (ibid)

➔ *Achievement // Ascription:* Achievement cultures are made of people whose status are based upon their performance in their functions, contrary to an ascription culture, where status is based on who an individual is, regardless their performance. For the scholars, typical achievement cultures can include the US, Austria, Israel, Canada, Australia, Scandinavia, Switzerland or the UK, fundamentally opposed to Venezuela, Indonesia, China, Japan or Saudi Arabia for example, that are more of ascription cultures. In achievement cultures, recognizing good performance, avoiding titles as much as possible and leading by example are important aspects to remember. In ascription cultures, using titles to clarify people's status, showing respect to people in charge and daring to use the authority if you have it are propositions to follow. (ibid)

➔ *Sequential time // Synchronous time:* Sequential cultures have a very orderly vision of time, value punctuality and feel comfortable doing one thing at a time when synchronous cultures are much more flexible, working on several things at a time and having a wider perspective on how past, present and future overlap. Germany, the UK, or the US are recognized to be sequential when countries like Japan, Argentina or Mexico tend to be more synchronous. To work with sequential cultures, it's more effective to focus on one activity at a time, be punctual and be clear on deadlines. Synchronous cultures need more flexibility around work, deadlines and parallel schedules. (ibid)

➔ *Internal direction // Outer direction:* Internally-directed cultures have a locus of control situated on themselves, thinking they have control over their environment and their goals. The locus of control is external for outer-direction cultures, thinking their environment is defining their action, focusing their actions towards others and avoiding conflicts. People from Israel, the US, Australia, New Zealand or the UK are typically internally-directed, opposed to China, Russia or Saudi Arabia that are more

characteristic of an outer-direction culture. As far as how to act in one case or the other, internally-directed cultures need more control, to agree with the set objectives and to be able to engage in constructive conflict, and outer-direction cultures need more feedback and clear instructions, avoiding conflict as much as possible and encouragement to take responsibility. (ibid)
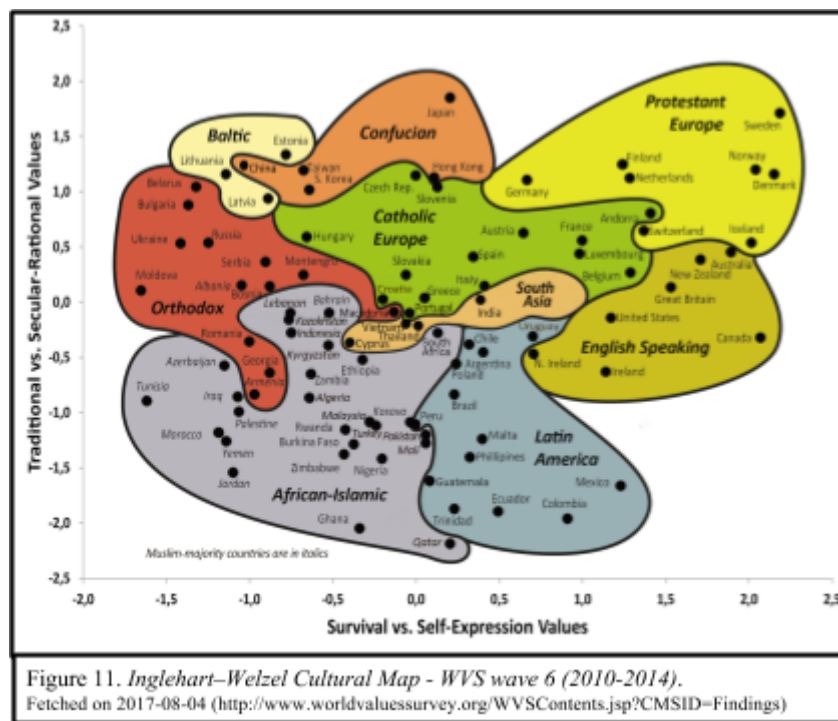
Inglehart-Welzel's cultural map of the world

Ronald Inglehart and Christian Welzel created a chart based on data issued from the World Values Survey through which they describe how the world population can be assessed following two major sets of values (Inglehart & Welzel, 2013). On the vertical axis, traditional values and secular-rational values oppose each other while survival values and self-expression values stretch many countries on the horizontal axis (ibid) (see Figure 11 below).

The traditional/secular-rational values dimension shows the contrast between societies in which religion is important and the others (Inglehart & Welzel, 2013). More traditional societies depict more important parent-child ties, traditional family values, have a tendency to reject divorce, abortion, euthanasia, and suicide. These societies also show higher levels of national pride. On the other hand, societies closer to the top of the vertical axis score opposite on all of these topics (ibid).

The survival/self-expression values dimension is linked to post-industrialization phenomena such as accumulation of wealth in certain parts of the world (Inglehart & Welzel, 2013). In those parts of the world, priorities have shifted towards a more subjective well-being, self-expression and quality of life. On the other side, in societies that did not complete their industrialization phase yet, the focus is still on survival and physical security, which leaves only little room for more inspirational and abstract endeavors (ibid).

After positioning each countries individually on this matrix, the authors realized that clusters of historically- and/or geographically-linked countries appear such as English-speaking countries, Latin America, Catholic Europe, Protestant Europe, African countries, Islamic countries, South Asian countries, Orthodox or Confucian ones (Inglehart & Welzel, 2013).

Figure 11. *Inglehart–Welzel Cultural Map - WVS wave 6 (2010-2014)*.
Fetched on 2017-08-04 (http://www.worldvaluessurvey.org/WVSContents.jsp?CMSID=Findings)

Organizational culture

Lewis' model of cross-cultural communication

Richard Lewis (1996) approached leadership and organizational culture in a singular way, most of the foundation of his conclusions lying in his own model depicting cultural dimensions of national nature (see Figure 12 below). Indeed, he concluded with data drawn from 50,000 executives around the world that humans can be divided into three categories, which together form a triptych of human behavior: 1) *Linear-active people*, typically found in countries like Germany, Switzerland, the USA or the UK for example, defined as logical, direct, focusing on one thing at a time and keen on planning; 2) *Multi-active people*, typically found in countries like Brazil, Argentina, Portugal or the Ivory Coast for example, defined as emotional, expressive, doing several things simultaneously and resenting schedules and deadlines; 3) *Reactive people*, typically found in countries like Vietnam, China, Japan or Thailand for example, defined as listeners, reserved, highly protective of face and wary of conflict (ibid).

From those three profiles, Lewis (1996) explains how differently leadership is applied in certain countries based on their national culture's affiliation to one profile or another:

➔ In linear-active countries, managers prove to be task-oriented, favouring facts and logic over feelings and emotions, with a strong focus on objectives and results.

➔ In multi-active countries, managers might rely more on their charisma and eloquence to motivate and persuade, acting more on instincts and using networks and personal connections to make things work and find arrangements.

➔ In reactive countries, experience and knowledge is the key to power, managers tend to focus greatly on creating harmonious atmosphere in the workplace.

Figure 12. *The Lewis Model.*
Fetched on 2017-08-04 (https://www.crossculture.com/about-us/the-model/)
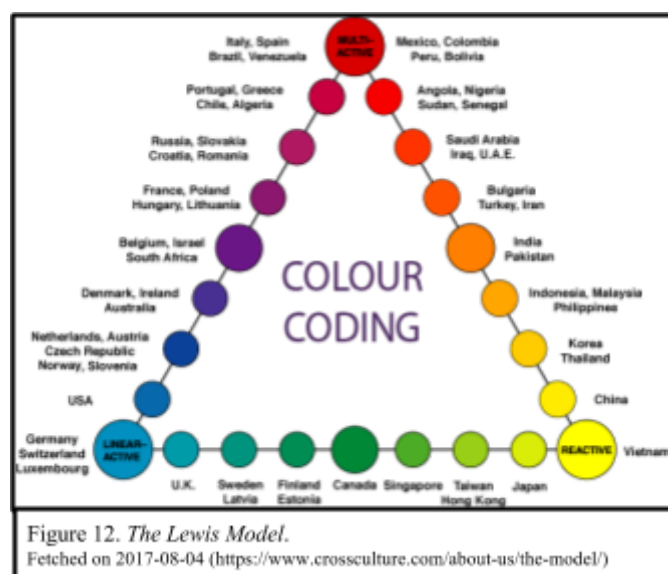
Trompenaars' four corporate cultures

Fons Trompenaars and Charles Hampden-Turner (1997) also worked on organizational or corporate culture by scoring more than 60,000 people across 25 years on certain values. In a matrix of both a vertical axis going from hierarchical or centralized structures to a more egalitarian or decentralized structures, and a horizontal axis going from person-oriented or informal style to a more task-oriented or formal style (see Figure 13 below), the authors depict four major organizational cultures spread around the world: 1) *Incubator*, common in Northern Europe or Canada, that combines person-oriented style with decentralized egalitarian structure where management by passion dominates and people are intrinsically motivated; 2) *Guided missile*, common in the USA or Ireland, that combines task-oriented style with a decentralized egalitarian structure where strategy and objectives make up for most

Figure 13. *The Four Corporate Cultures*, inspired from Trompenaars & Hampden-Turner (1997).
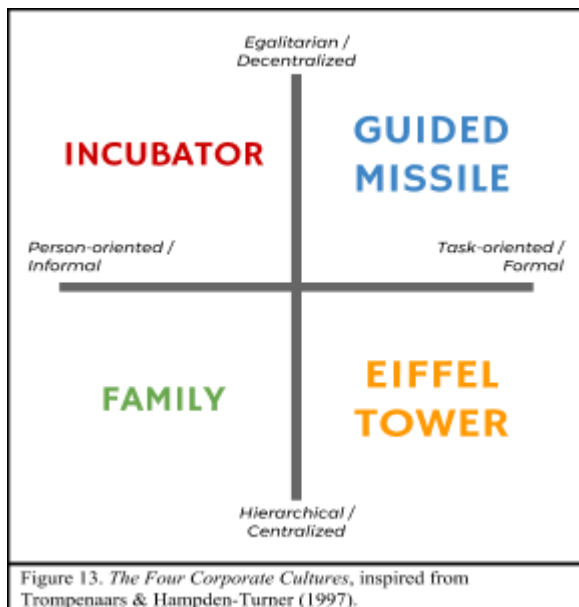
of the identity of the organization and the motivation of its people; 3) *Eiffel Tower*, common in continental Europe or Australia, that combines task-oriented style with a centralized structure where expertise, titles and bureaucracy regulate and spread authority within the organization; 4) *Family*, common in Latin America or Asia, that combines person-oriented style with a centralized structure where networks, personal connections and experience are function of the authority in the organization (ibid).

GLOBE research project

Started at the University of Pennsylvania, the **G**lobal **L**eadership and **O**rganizational **B**ehavior **E**ffectiveness research project involved 170 researchers studying 62 societies with the goal of assessing the extent to which the practices and values of business leadership are universal or specific to just a few societies around the world (House, Hanges, Javidan, Dorfman & Gupta, 2004).

In order to measure differences between societal and organizational cultures, the researchers came up with nine dimensions: 1) *Performance orientation* that regards how much a collective encourages and rewards members for performance (House *et al.*, 2004); 2) *Uncertainty avoidance* that regards how much a collective relies on social norms, rules, and procedures to decrease the unpredictability of future events; 3) *Humane orientation* that regards how much a collective encourages and rewards members for being fair, altruistic and generous; 4) *Institutional collectivism* that regards how much institutional practices encourage and reward collective distribution of resources and collective action; 5) *In-group collectivism* that regards how much individuals express pride, loyalty, and cohesiveness in their own
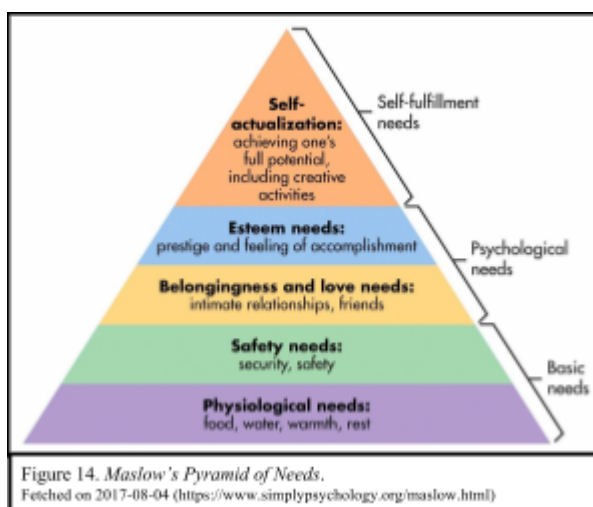
collectives; 6) *Assertiveness* that regards how much individuals are assertive and aggressive in their relationship with others; 7) *Gender egalitarianism* that regards how much a collective reduces gender inequalities; 8) *Future orientation* that regards how much individuals engage in future-oriented behaviors; 9) *Power distance* that regards how much the society accepts authority, power differences, and status privileges between individuals (ibid).

From those, 21 dimensions of leadership were produced, further refined in six Culturally endorsed Leadership Theories (CLTs) that find positive or negative value universally around the world: 1) *Charismatic/Value-based leadership* that reflects the ability to inspire, motivate, and expect high performance outcomes from others based on firmly held core values (House *et al.*, 2004); 2) *Team-oriented leadership* that reflects the ability to emphasize team building and the implementation of a common goal among team members; 3) *Participative leadership* that reflects the ability to involve others in making and implementing decisions; 4) *Humane-oriented leadership* that reflects the ability to provide a supportive and considerate leadership; 5) *Autonomous leadership* that reflects the ability to lead independently and individualistically; 6) *Self-protective leadership* that reflects a leadership based around the security of the individual and group through status enhancement and face saving (ibid).

Motivational studies

Maslow's pyramid and the Barrett model

Maslow's pyramid

Figure 14. *Maslow's Pyramid of Needs*.
Fetched on 2017-08-04 (https://www.simplypsychology.org/maslow.html)

Abraham Maslow (1943) described in his paper *"A Theory of Human Motivation"* a hierarchy of needs taking the shape of a pyramid which, according to him, each human-being is naturally inclined to climb (see Figure 14). This pyramid is divided into five horizontal sections, starting with the most basic of needs that he called physiological, followed by safety needs, themselves followed by belongingness needs,

all three together forming the so called *'lower-order needs'*. Those needs have to be satisfied in order to pursue the remaining two *'higher-order needs'*, esteem needs and finally, self-actualization needs. Maslow indicates that each depicted need requires its precedent(s) to be fulfilled before following the ascension of the pyramid and that in case of the emergence of a more basic need, human-beings will always be led to give priority to the most basic need to fulfill before focusing back on a *higher-order* need (ibid).

Barrett's model

Figure 15. *The Barrett Model.*
Fetched on 2017-08-04 (https://www.valuescentre.com/mapping-values/barrett-model)

Richard Barrett developed in 1998 the so called Seven Levels model that combines both the Seven Levels of Consciousness Model on one side, which applies to individuals and organizations, and the Seven Stages of Psychological Development Model on the other, which applies to individuals strictly (Barrett Values Centre, 2017) (see Figure 15). The model builds on the theories developed by Abraham Maslow and develops his pyramid of needs in the following fashion: 1) physiological and safety needs are bundled together to form the base of the model under the label *Survival consciousness*; 2) belongingness and self-esteem needs top the base of the model in that order; 3) finally, Barrett expands Maslow's last need of self-actualization and divides it into four stages which are *Transformation*, *Internal cohesion*, *Making a difference* and *Service* (ibid).

Transformation reflects to a level of consciousness where an individual starts living by its unique and personal values and beliefs, not necessarily matching the ones present in its social environment (Barrett Values Centre, 2017). *Internal cohesion* translates to a level of consciousness where an individual comes to realize and understand the meaning in its life. *Making a difference* is a stage where an individual finds meaning through creating positive

change in the world, and *Service* is the final stage where having an impact in the world becomes a lifestyle for the individual (ibid).

The Eastern/Western schism

Fortunately, as Salili and Hoosain (2007, p.12) describe, *"researchers in the field of achievement motivation have shown that people from different cultures attach different meanings to achievement; they are motivated for different reasons, have different goals of achievement, and go about achieving their goals in different ways"*. They explain that globalization and multiculturalism pushed researchers to study and develop an understanding of motivational characteristics of people from diverse backgrounds. The authors more specifically focus on education and how to motivate students in a learning context, but their findings are nonetheless insightful as of how cultural characteristics mitigate each culture's motivational predispositions. Point actually supported by Iguisi (2009, p.148) when he concludes that his study indicates that *"what motivates employees differs from organisation to organisation and from country to country given the context in which the employee works"*.

The main analysis that is made by most researchers linking culture to motivation mainly revolves around the opposed Western and Eastern perspectives. At the core of this conflict, more precisely, is the idea of construal of the Self, found to be *'independent'* or *'interdependent'* (Markus & Kitayama, 1991). The former involves a *"conception of the self as an autonomous, independent person [..] similar labels include individualist, egocentric, separate, autonomous, idiocentric and self-contained"* (ibid, p.226). On the other hand, the latter conceptualizes the self as *"more connected and less differentiated from others [..] connotations, as sociocentric, holistic, collective, allocentric, ensembled, constitutive, contextualist, connected and relational"* (ibid, p.227). The scholars actually bring up Henry A. Murray's theory on psychogenic needs (1938) to link it to those two opposite construals, hinting at cultural characteristics such as individualism, as explained by researchers like Hofstede and Trompenaars, that were brought up earlier in this study. Murray (1938) describes the personality and behavior of a human-being by a set of needs that individuals are consciously or unconsciously motivated to fulfill. This total of 26 psychogenic needs is subdivided into five categories: 1) materialistic needs; 2) ambition needs; 3) power needs; 4) affection needs; and 5) information needs. According to Markus and Kitayama (1991) some

of those needs are more relevant for independent, individualist, and therefore Western selves, when others relate more to interdependent, collectivist and therefore Eastern selves (see Figure 16 below).

Figure 16. *Human psychogenic needs*, inspired from Murray (1938). Selection inspired from Markus & Kitayama (1991).
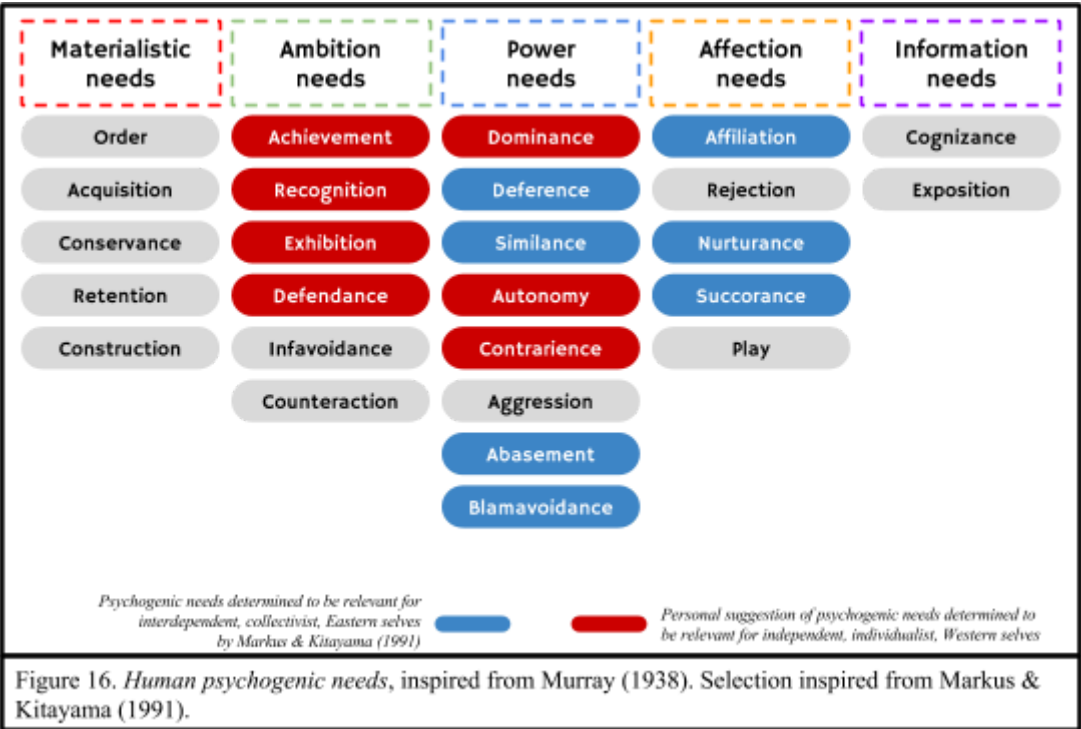
Markus and Kitayama (1991) recognize the following motives to be more prone to be embodied by interdependent selves: *deference*, which is the need to admire, follow and serve a superior (Murray, 1938); *similance*, which is the need to imitate others; *affiliation*, which is defined as the need to form friendships; *nurturance*, the need to nourish or protect another person; *succorance*, that is the need to seek help and be dependent; *blamavoidance*, described as the need to avoid blame or punishment by behaving accordingly; and *abasement*, the need to comply and accept punishment. On the other hand, even if not exposed explicitly by the authors, I suggested some of the motives that could qualify as relevant for the ones the scholars call *"those with independent selves"* (Markus & Kitayama, 1991, p.240): *dominance*, which is the need to influence or control others as well as to lead (Murray, 1938); *autonomy*, the need to resist influence, to defy authority and seek freedom; *contrarience*, which is the need to act differently from others and be unique; *achievement*, that is the need to overcome obstacles, exercise power to flatter the Ego; *recognition*, which is a need that demands respect, distinction and social prestige; *exhibition*, that is the need of attracting attention to one's person; and *defendance*, which is the need to defend oneself against blame instead of accepting it.

Several studies have confirmed those links, such as the one conducted by Bond (1986) that verified the level of different motives in reflection of the collectivist or group-oriented tradition found in China. Bond (1986) indeed found for example that Chinese respondents showed high levels of needs of abasement, nurturance or socially oriented achievement and low levels of needs of individually oriented achievement, exhibition or power in general. Another example are the studies conducted by Salili (1994) and Church and Lonner (1998) that both focused on the case of Hong Kong. Results were that students who were children of British parents would focus on individual achievement and personal goals in competitive situations, when the native Chinese students focused more on the affiliative aspect, striving for more group, community or family goals.

Methodology

This chapter aims to describe and motivate the methodology that was used in this study. Focusing first on the research approach, a description of the research design will then explain how the data has been been collected. Indications about how the data was then analyzed followed by the ethical considerations taken during this study will conclude this chapter.

Research approach

The focus of this study is to study the impact of culture in the process of designing gamification with the purpose to gain a greater understanding of how culture is accommodated for when gamification consulting companies create gamified solutions for businesses around the world. A qualitative research method was preferred because of its ability to capture great amount of more detailed information, allowing a deeper and through analysis.

Due to the extreme scarcity of research on the research area linking gamification to culture, this study intends to get better insight through an exploratory approach. A qualitative research method is valuable in research when seeking to understand the meaning and beliefs of an underlying action in depth by addressing questions like 'how' or 'why', ultimately aiming to understand the interconnectedness of core factors and build theories (Bryman & Bell, 2015; Marschan-Piekkari & Welch, 2005). Creating a gamified solution adapted to another company's needs and goals in a global setting is a complex endeavor involving many factors to succeed, and qualitative research methods were deemed better suited to deal with this complexity as they allow researchers to identify and describe significant but potentially subtle details of the issue at hand (Marschan-Piekkari & Welch, 2005). While the limited number of observations might mean that the outcome of this study has a limited generalisability, as the drawn conclusions and the findings only speak for the specific cases investigated (Bryman & Bell, 2015), a widely generalisable result may not be within range of this study, knowing that it aims to explore a rather uncharted research area.

This study applies an abductive reasoning approach, which includes both an inductive and deductive approach where the literature review was created before the data collection in order

to gain an understanding of the basic concepts and contexts relevant to gamification, but was then revised throughout the data collection as new understandings and information came up, calling for a critical reflection upon the data collected and existing relevant theory. Among other things, this reasoning allows to remain unbiased to the collected data and critical towards the theories presented previously, reinforcing then the validity of the study.

Research design

The research design provides a general framework over the unit of research of this study and the collection methods adopted in order to answer the research question. The research design lays the foundation on which the study's reliability and validity is judged, which ultimately leads to accuracy and quality in the study (Bryman & Bell, 2015).

Unit of research

To get valuable insights into the design process of gamification in a global setting, the empirical data was collected from several gamification designers and professionals who work around gamification in general. The empirical sample in this study consists of nine individuals working in nine different organizations scattered all across the globe, four of them calling themselves gamification designers, four others acting as CEO of their own gamification consulting firm, and one individual who worked in various organizations as Culture Manager.

Name	Company	Country	Position	Interview date	Interview length
GD 1	Geometry	UK	Gamification designer	10/07/2017	01:11:52
GD 2	Plus	UK	Gamification designer	12/07/2017	00:53:35
GD 3	Crush	USA	Gamification designer	14/07/2017	00:40:43
GD 4	Hug	USA	Gamification designer	18/07/2017	00:40:58
CEO 1	Millions	USA	CEO	12/07/2017	00:33:16
CEO 2	Kid	USA	CEO	13/07/2017	00:28:42
CEO 3	Short	Italy	CEO	14/07/2017	00:14:15
CEO 4	Level	USA	CEO	14/07/2017	00:22:02
CM 1	Matrix	Sweden	Culture Manager	24/07/2017	01:00:02

Interviewing those nine individuals was a result of selecting and contacting more than 30 gamification consulting companies found online, informing them of the endeavor of this study. By doing so, the respondents could already indicate if their business counted clients in different national markets or clients who were global themselves, which would make them eligible to the purpose of this study. Once agreed, the first contact always tried to forward my request to the most suited person to answer the questions on the interview guide I sent beforehand (see Appendix A).

Data collection method

As the aim of this thesis is to study the research questions *"How do gamification consulting companies work with businesses located in other national markets? To what extent does culture impact their processes?"*, interviews, as data collection method, was adapted to fetch primary data. Their ability to explore questions like 'how' or 'why', which this study sets out to do. Even though this approach might limit the number of respondents, which makes for its main weakness, it allows to capture people's feelings, experiences and reflections in a much better way than other methods. In opposition to focus groups for example in which individuals might not feel as free to express themselves because of group pressure or simply feeling uncomfortable talking about certain things in presence of others (Bryman & Bell, 2015). The study makes use of a semi-structured interview process, preferred for its flexibility, allowing the interviewees to speak more freely and the interviewer to adjust the questions to the flow of the conversation. Semi-structured interviews make moving away from the planned interview guide, change the order of questions, or even add questions on the moment inspired from the respondent's answers. This freedom in the process may help capture more details, which could be missed if following a more structured, and therefore rigid, process. On the other hand of the spectrum, a totally unstructured interview approach, that resembles more a conversation than an interview per se, is not as efficient at capturing nuances of the respondents point of view, which can be crucial in a qualitative process (ibid).

If semi-structured interviews seem to be the most suitable way to explore the subject of the gamification design process, there are also a few drawbacks that can affect the study's validity and reliability. This methodology does not protect against the possibility of a subject having a

failing memory or a potential bias in its interpretation of things, which might hurt the reliability of the data (Bryman & Bell, 2015). Miscommunication or misinterpretation from either party during the interview might also cause issues. To limit these potential risks, I made sure to ask several questions to explore different aspects of the same point. The interview guide was also structured to lead smoothly the interviewee towards the topic in focus, as instructed by Bryman and Bell (2015, p.221).

The semi-structured interviews were conducted through calls carried out via internet, which allowed for a more efficient and practical data collection when the sample of respondents is geographically dispersed (Bryman & Bell, 2015, p.497). Telephone interviews are arguably less effective than face-to-face interviewing as they do not include nonverbal and/or contextual data, but the lack of resources made it unfortunately impossible (ibid). Due to time constraints, the number of interviews was limited to nine, spanned across six different time zones.

Interview protocol and interview process

Before even formulating the questions that were included in the interview guide and asked during the interviews, it is important to note that, in an inductive manner, the literature review helped getting familiar with the research area, which helped conceptualizing relevant and pertinent questions. In that way, the questions were linked to the conceptual framework supporting this study in order to guide the interview towards the desired insights, which ensures quality and comparability in the study (Bryman & Bell, 2015).

The interview guide (see Appendix A) was given a funnel-like structure, starting with general questions to evolve towards deeper and more precise questions, narrowing down to the core of what this thesis intends to study. The two first questions were typical introducing questions, here to start off smoothly and put the interviewee at ease by speaking about themselves and their personal opinions on the topic in very broad terms. The next four questions were targeted at gamification and their process of designing gamification at large, inducing the point of tailoring the design to its audience supported by the conceptual framework, the objective behind this being to ease the transition towards the main reason of the interview. The final seven questions were supposed to build on the previous questions to then ask about the design of gamification at in an international setting, bringing the cultural aspect that

makes this study relevant into the interview. In that way, as the interviewer, I managed to guide the interviewee naturally and logically towards the core of the discussion I intended to have in the first place. The interview guide was distributed shortly before the interview to each respondent for them to familiarize with the topics in focus and give them time to collect resources to help them exemplify their thoughts and answers during the interview which, like Bryman and Bell (2015) indicated, strengthens the dependability of the research. In order to get as much information and insights from the interviewees, the questions were kept as open-ended as possible and I made sure to let the interviewee talk until finishing its thought, not to interrupt any development.

All nine interviews were conducted in English, in which all respondents proved to be at least professionally fluent, were scheduled between July 10th and 24th, and ranged from 14 to 71 minutes with an average situated at 40 minutes.

Analytical process

Shortly after the interviews, transcriptions were issued, as the combination of data collection and data analysis is beneficial for the development of theories. Likewise, as Merriam (2009) describes, I moved back and forth between the theoretical framework and the empirical findings during the writing process to be most efficient in analyzing the data and enhance the relevance of this study, combining both deductive and inductive research approaches. The audio recordings of the interviews, that were systematically recorded, were transcribed in written form to ensure an effective analysis of the data, increasing the transferability aspect of the study (Bryman & Bell, 2015, p.400).

Once the transcriptions were validated by the respondents, I highlighted certain parts of the interviews that encapsulated core insights that I could compare between several respondents, as well as parts that could be directly or indirectly linked to elements within the theoretical framework as it stands. Doing so allowed me to code the data I collected and made it easier to analyze it altogether, establish convergent and divergent insights in relation with the theoretical framework, which then helped drawing empirically-based conclusions later on.

However, as Bryman and Bell (2015) note, there is always a possibility of a researcher neglecting important information when categorizing the collected data, putting the

comprehensiveness of the study. Aware of this risk, I tried categorizing the data in two steps, with a first complete screening of the data to categorize each highlights individually, and a second screening to bundle highlights together depending on their individual categories. By doing so, I limited the possibility of excluding any information from the analytical process and issued relevant and rich categories that helped the formulation of conclusions later on.

Ethical considerations and quality assessment

Quality in qualitative studies is function of truthfulness, which is intimately linked to writing in an ethical manner (Bryman & Bell, 2015; Merriam, 2009). Guba and Lincoln (1994) refer to 'trustworthiness' which implies that the findings are credible and that the reader can be certain that they are faithful to reality, away from the researcher's own biases or motivations. Another important aspect of trustworthiness is 'transferability', which is the extent to which the findings can be seen as generalizable to other contexts or situations than the ones specifically studied (Bryman & Bell, 2015).

Necessary steps have been taken to insure high levels of trustworthiness in this study. The anonymity given to the interviewees at the beginning of the interviews helped reaching higher levels of honesty from the respondents, not pressured of associating their identity to any of the information they might share. Sending all transcribed interviews to the respondents and enabling them to review and make changes is in line with Merriam's (2009) thoughts on increasing overall validity through respondent validation, improving the credibility of the study as a whole in result. Additionally, interviewing people from different geographical regions and positions in the same industry allowed triangulation of the collected data, enhancing its validity and trustworthiness (Bryman & Bell, 2015, p.402). Finally, in an effort of transparency, the interview guide with the specific questions asked is made available for peers to build on it for further and/or future research (see Appendix A).

Empirical findings

In this chapter, the empirical findings will be presented in a structured way to lay the groundwork for the analysis to follow in the next chapter. The findings will be divided into four parts, the first one focusing on the cross-cultural challenges the respondent companies encounter when conducting business with companies from different national markets. The second part will gather findings related to their working process and the different resources they use to create solutions for those clients located in other national markets. The third part will present insights related to how culture impacts the solutions they create for their clients. Finally, the fourth part will present a summary of the findings to give holistic perspective of this chapter.

Cross-cultural challenges

Conducting the business of gamification consulting with companies located in different national markets, whether it's about foreign-based companies or local companies with operations abroad, sure presents its share of challenges to overcome. However, among the respondents, the severity of those challenges seemed to differ, dividing the respondents in two camps.

Camp 1: apprehensive respondents

The first of the camps, composed of five of the nine respondents, stated clearly the importance of understanding cross-cultural dynamics in their job and the struggles that come with it. As GD2 exemplified it very well:

> *"You should never forget how much of what you say is from your own culture, your own ideas and your own way of expressing yourself. [..] You shouldn't assume they are knowing things or don't know anything, so you shouldn't make assumptions of who they are and what they expect of you." - GD2 (2017-07-12)*

Indeed, for all of them five, the approach to culture is always difficult, especially when it comes to the design process, GD3 (2017-07-14) indicated that *"making sure that those things*

we are designing do apply to those different audiences" actually makes for the heart of the challenge at hand. CEO3 put in perspective national and organizational culture himself:

> *"Most of the processes of the companies are almost the same, so it is maybe similar in the same company in different countries still in the same market. But what can change is the culture of people, which is related to the nature of people. Italian people for example can be similar to Spanish people but quite different from English people or even Northern people." - CEO3 (2017-07-14)*

GD1 and CEO1 both gave examples respectively of India and China being particularly difficult cases in their recent history. GD1 put it simply when speaking about her experience around the Indian culture:

> *"I needed to dive into how people think differently in India. Are there cultural backgrounds that change my design? Because the users wouldn't make the desired actions because of cultural backgrounds." - GD1 (2017-07-10)*

And CEO1 highlighted that even common conceptions can turn out differently:

> *"Certain elements or certain designs you wouldn't do in certain regions. For example, it turns out Asia is always on this group harmony and not individual, but it turns out sometimes they are the most competitive. So competitive designs may work in certain demographics there." - CEO1 (2017-07-12)*

To conclude this segment that concerns the first of the camps for which cross-cultural challenges are real and somewhat troublesome, GD1 both summarized the thought that seems to bother the other respondents as well and shared a rather despondent comment on how to deal with it, showing the complexity of the question:

> *"Sometimes you design something, it makes sense in your head, but when you give it to people, they find problems for certain reasons. So I don't think there is a way to be all-knowing." - GD1 (2017-07-12)*

Camp 2: composed respondents

On the other end, the other four respondents appeared much more composed about cross-cultural aspects, having eyes on other variables instead, as exemplified by GD4:

> *"We evaluate the most by user age, after age it's going to be education level which really influences general decisions on designing the gamified solution, and after that is what the users value, and in that third layer, I guess the general cultural dimensions could come in." - GD4 (2017-07-18)*

However, it's important to stress that if those respondents did not see in cross-cultural differences the challenges the other respondents saw, it does not mean they are not aware of them:

> *"We know those cultural challenges are there, they're always gonna be there for us, and we design a platform that works for the masses." - CEO4 (2017-07-14)*

> *"There are definitely some cultural attributes, no question, but we do believe that one of the strongest attributes that shape people's behavior in the workplace is what company culture they're in." - CEO2 (2017-07-13)*

This quote of CEO2 introduces a trend that has been observed in all of the respondents of this camp. Indeed, if not worried about cross-cultural dynamics, those respondents were all more concerned about organizational culture:

"But when all is set and done, we realize that people who work for Sellpal in Shanghai are more like the other Sellpal folks than the people that we teach that live right next door at an aviation company that produces avionic equipment." - CEO2 (2017-07-13)

"We assessed the Chinese team (of Tolto), they were almost exactly the same as the Tolto pattern (in Sweden) and very far away from typical Chinese." - CM1 (2017-07-24)

It is clear throughout the findings among those respondents that, for them, corporate or organizational culture matters more than cross-cultural aspects such as national culture. As a matter of fact, CEO4 (2017-07-14) boils it down to something very simple and straightforward when he argues that *"[..] the reality is that if I have a company like Pike that serves both markets, that's Pike's challenge to figure this out, not mine.".*

To conclude this segment that focuses on the respondents who did not see cross-cultural dynamics as a threat to be worried about, CM1 exposed in more details a point of view that the other respondents shared in more subtle ways. This point of view manifests a more candid vision of human-beings resembling each other more than differing from each other, particularly on a human need perspective:

"We all have very similar needs, to feel that we can survive, [..] that we belong to people [..] and also that we [..] create value in the world. And all those things are very similar whether you come from India, or France, or Sweden, or Finland or else." - CM1 (2017-07-24)

Working processes and resources used

Starting point

If the respondents split on their approach to cross-cultural challenges, they show more unity when it comes to their working process. Indeed, as consultants, after defining clearly the business goals and resources, most of the respondents prioritized the end-user to move forward:

"The very first thing to ask is the business goal, we need to know what the client needs to accomplish. [..] Then we ask a lot of things about the audience, there are differences between people who are your age against people who are in their 50's." - CEO2 (2017-07-13)

"We always take the target audience under consideration. That's our number one." - GD3 (2017-07-14)

However, three of the respondents, even if aware of the potential importance of investigating about the end-users' characteristics, seemed less categorical, often finding refuge in other variables instead:

"[..] because if it's not aligned to the cultural, even strategical intention of the organization currently, and that is just something that is general, it's very difficult to get motivated and feeling that this is important for me to be part of."
- CM1 (2017-07-24)

"Sometimes we ask for more information like 'who is going to use that?', 'what department is going to use that?', so who are the end-users." - GD2 (2017-07-12)

The common point between those three respondents was their preference for corporate, organizational or company culture, finding more value in gathering the individual end-users under the common umbrella of the culture imposed by the company at the workplace.

Frameworks used

Every respondent shared the fact that they use frameworks systematically to monitor their processes, however, it is important to note that several of the respondents admitted that those frameworks tend to change frequently:

"The first one is the definition of the framework in which the gamification project will be developed." - CEO3 (2017-07-14)

"There is no process to which we go back to in all cases, it has a lot to do with knowing about things happening in the world too." - GD1 (2017-07-10)

This finding is a symptom of another trend that shows clearly throughout the interviews. The frameworks used are as heterogeneous as the gamification consulting companies that use them. The most mentioned frameworks mentioned across the nine interviews were the Player Types issued by R.Bartle in 1996 and the Octalysis framework developed by Yu-Kai Chou in 2012, which were both found in two occurrences.

Use of research

Another finding that emerged from the conducted interviews was the use of theories and more academic research in the research phase of a project or later downstream. Five out the nine respondents confessed making use of some academic research and trying to implement them in their projects:

"Absolutely, we are totally looking into all of those Hofstede dimensions, we are looking at all those aspects." - GD1 (2017-07-10)

"Normally, when I start a gamification project I make a lot of secondary research to understand what are the best practices, mainly in the USA." - CEO3 (2017-07-14)

"But the theories we work with are gamification studies and frameworks, [..] game design theories or motivational theories from psychology we may have a look at. [..] Gamification is a mixture of different fields, it's behavioral science, game design, business, sales, strategy.." - GD2 (2017-07-12)

More surprisingly, CEO4 (2017-07-14) showed a more unique approach that sure highlights his faith in how research could supplement his process at the core when he shares that he

looks more at *"neuroscience studies than cultural ones, we're looking at how the brain behaves"*.

On the other hand, the four remaining respondents showed little to no interest in looking at studies and research to help themselves. CEO1 summed up a point of view that the others shared to some degree:

> *"You can look at those models, add your own model on top of that, in the end, they are not really helping you practically. Because this is a very abstract, academic thing." - CEO1 (2017-07-12)*

The impact of culture on the solutions

As explained earlier, the respondents are divided when it comes to assess the importance of cross-cultural challenges in their process. While five respondents were acknowledging cross-cultural differences and trying to cater to them on a more national basis, the four remaining respondents were looking more at corporate and organizational culture for insights on how to design their solutions. For matters of clarity, data concerning each of those two types of culture will be separated in their own subparts.

National culture

The respondents wary of cross-cultural differences, with regret to explaining in general terms how they integrate this factor in their solution, gave a few examples of past cases. CEO1 mentioned the 'employee of the month' award and how, in his experience, the concept is connoted differently around the world:

> *"In the US, you have the employee of the month, that's unimaginable in more egalitarian societies like you find in Europe. And if you're from Eastern Europe or Russia, [..] that person wasn't really a hero but usually more a well-connected person you wanted nothing to do with. In the Netherlands, employee of the month is something you would not really see as an honor."* - *CEO1 (2017-07-12)*

In another field, GD1 described how her project in education in India had to be modified to cater the cultural background she researched:

> *"In India, there's a lot of pressure already there [..]. So when we're looking at the player, [..] if it's already driven by cultural backgrounds which are really 'left brain', we need to create an experience that has a lot more heart, that has a lot of epic meaning, a lot of creativity, social interactions."* - *GD1 (2017-07-10)*

Finally, GD3 shared a story based around the design of an app and how concepts might differ from one audience to another:

> *"While they did love the content for the American audience, they said that it was a very US-centric concept, this small town, with local businesses and that might not apply to other places and other countries. So we had to take a step back and rethink that."* - *GD3 (2017-07-14)*

She followed by describing briefly a method she uses sometimes to counter this silo effect:

> *"Let's say, we'll focus on the US audience first, then we take that and look at it critically from the lens of a Chinese audience. Then we have to tweak that design in certain cases, it's like editing a document."* - *GD3 (2017-07-14)*

On another side of the spectrum, GD2 (2017-07-12) shared an insight that speaks for his apprehension of cross-cultural challenges. As he puts it, *"we try not to play with culture a lot like that, sometimes it can backfire."*, to the point where, instead of tackling and solving the problem itself, he's more inclined to avoid it by *"being as generic as you can"*.

Organizational culture

The interviews failed to produce concrete examples on how certain solutions were adapted to other companies' organizational culture per se. However, the findings made clear that the attention given to organizational culture does have an impact on those solutions. CEO2 and CM1 have been explicit on their approach to designing gamified solutions:

> *"Most of what we cater to is the company culture. Not a characteristic of an individual person. Sometimes they are linked [..] but many times, we find that the company culture transcends almost any other characteristics of a particular group." - CEO2 (2017-07-13)*

> *"From an organizational perspective, to develop a game to help and motivate people in an organization, you certainly have to listen to and look at the culture of that organization. (in opposition to national culture)" - CM1 (2017-07-24)*

GD4 (2017-07-18) underlined that when it comes to employees, it is likely that *"employees in specific fields face similar problems"*, which makes for one of the reasons organizational culture might provide more interesting insights in his opinion.

On the other hand, CEO4 (2017-07-14) puts responsibility on the shoulders of his clients to choose what fits best in their opinion, which consequently pushes him to build his solutions *"as an assembly of components"*, finding answers in standardizing several features that can work together.

Important to note, some of the respondents sensitive to cross-cultural aspects proved that they're also taking a more organizational type of culture into consideration:

"If we design something for a manager, it might look very different from a new hire, or somebody who's a junior because that manager will have to deal with all kind of other things, they might be very busy, when the new hire might have more time, more questions, or need a slower pace." - GD3 (2017-07-14)

"Companies usually already have a sort of company culture set up, which is easy to understand the aspects of the culture in the specific country as well." - GD1 (2017-07-10)

Summary of the findings

The nine interviews scrutinized above delivered interesting findings in regards to how gamification consulting companies seem to work when working for businesses involved internationally and whether culture impacts this working process or not.

The first main finding was the extent to which respondents acknowledged the cross-cultural challenges that conducting their business internationally implies:

➔ The respondents found themselves divided, one half being apprehensive and realizing the importance of paying attention to those cross-cultural differences between people to design gamified solutions that would cater to those characteristics.

➔ The other half, even if aware of those cross-cultural differences, did not think of it as a major obstacle, most often relying on other factors such as age or, in a more common fashion, organizational culture to create their gamified solutions.

The second main finding related to the working processes of those gamification consulting companies and the different resources they use to create gamified solutions:

➔ If the majority of the respondents indicated putting the end-user at the center of their process by investigating early on their characteristics, a minority of respondents showed more reserve in that regard, preferring, once again, to give more attention to the goals of the organization and the already established culture.

➔ The findings showed that nearly all respondents admitted to use frameworks to monitor their processes. However, a wide variety of frameworks were used apart from two models/frameworks that were cited twice each.

➔ The respondents showed some disparities when trying to get inspired from research and implementing some insights of that nature to help themselves creating better gamified solutions. Five of them mentioned reading studies related to subjects going from gamification to motivation and even neuroscience, as well as investigating about cultural backgrounds. The four remaining respondents could not say the same and, for the most part, shared their disbelief towards Academia as being able to provide practical solutions to the issues they face.

The third major finding shed a light on the actual impact those cultural differences, whether they were of national or organizational nature, could have on the solutions themselves:

➔ The relevant respondents to issues linked to cross-cultural differences between individuals gave several examples showing how those differences can influence a design and a few methods they used to solve or avoid those issues.

➔ Unfortunately, no respondents truly generated insights on how a gamified solution can differ from being adapted to one organizational culture or another. But the findings made clear that it is a point of emphasis as far as customization goes, which was a comment coming from a majority of the respondents, regardless if they were catering to cross-cultural challenges as well or not.

Analysis

*This chapter presents an analysis of the empirical findings mentioned in chapter four in regards to the conceptual framework presented in chapter two in order to generate arguments to answer the research question **"How do gamification consulting companies work with businesses located in other national markets? To what extent does culture impact their processes?"**. Three subparts will compose this chapter, the first one focusing on the findings in terms of working processes and resources used, a second part focused on the approach to culture and its consequences as depicted in the findings, and one final part will cross the analyses with the aim of providing an overall analysis to make sense of all those findings in relation to each other.*

Working processes and resources used

The findings related to how the respondents described their working processes showed that on some points, the methods depicted in the literature are respected but also added complexity to sometimes too polished theories.

The finding that showed the majority of the respondents putting the end-user at the center of the process to create gamified solutions goes very well in line with the studies conducted by Kumar and Herger (2013) or Morschheuser *et al.* (2017, p.8) that indicated *"Understand the user needs, motivation and behavior, as well as the characteristics of the context"* was the top requirement for gamification projects, emphasizing on user-centered designs being more and more common. The item number four (ibid, 2017, p.8) — *"Follow an iterative design process"* — was also present in several interviews like the one of GD3 (2017-07-14) that mentions tweaking the solution when looking at it with a Chinese audience lens.

However, an interesting point is that the requirement number eight on this list — *"Focus on user needs during the ideation phase"* — that could be found in only 33% of the literature review and 24% of the interviews conducted by Morschheuser *et al.* (2017) was significantly more present in the interviews this very study included, especially in the ones of GD1, GD3 or CEO1 that correspond to the ones who were categorized as more apprehensive towards cross-cultural challenges.

➔ This correlation could be understood as gamification designers, if catering to cross-cultural differences, paying a greater attention to the users needs considering that they might differ from one culture to another. That is what GD1 (2017-07-10) did when keeping in mind her insights about Indian cultural backgrounds before designing a solution that would not add pressure to an already high-pressure environment in school.

On the other side, more business-centered frameworks seem to be at play as well, reminding more the work of Werbach and Hunter (2012). Indeed, when looking at the interviews of CEO2, GD4 or CM1, it is clear that the emphasis is stronger on the strategic and more organizational side of things, putting the business in focus instead of the end-user per se. In the same movement, Werbach and Hunter (2012) focus on the business objectives in terms of value and the behaviors needed to reach them as the two first steps of their 6D framework. CM1 (2017-07-24) embodied it clearly when mentioning the importance of the alignment with the strategical intention of the organization when designing a gamified solution.

➔ A link could be drawn between this greater attention to the business or organization and the mindset observed in the respondents that saw more value in the organizational culture rather than the cross-cultural differences between individuals. Considering that for those gamification designers the organizational culture seems to be a key to design coherent gamified solutions when working with internationally-involved clients, it could be understandable that the focus is on the organization from the beginning of the process.

Approach to culture

The greatest finding of this study is the proof of culture playing a major role for gamification consulting companies when they work with clients that are located in other national markets than them. Indeed, this finding constitutes a major advance for the field of gamification, that, to this day, has never properly listed culture as being a variable impacting the end-result. If Koivisto and Hamari (2014) looked at gender or age, or Kim (2011) defined player-types, no one endeavored to research whether culture might influence gamification. Even more than just

showing that culture matters to gamification consulting companies through clear statements like the ones issued by CEO2 (2017-07-12) on catering to *"company culture"* or GD1 (2017-07-10) on *"cultural backgrounds"* being the cause of people not adopting the desired behaviors, the results showed a clear distinction between the respondents.

Does not cater to culture at all	Cater to culture		
	Cater only to national culture	Cater to both national and organizational culture	Cater only to organizational culture
∅	∅	GD1; GD3; CEO1; CEO3.	GD2; GD4; CEO2; CEO4; CM1.

After analyzing the collected data, the summary table above could visualize the observed situation:

➔ When touching upon the topic of culture, none of the respondents admitted to never take it into consideration when creating a gamified solution for an internationally-involved client.

➔ Only GD1, GD3, CEO1 and CEO3 acknowledged the importance of catering to cross-cultural differences observed between individuals. GD1 (2017-07-10) referred clearly to Hofstede's cultural dimensions and using them at times to help designing for a given culture, CEO3 (2017-07-14) and CEO1 (2017-07-12) mentioned differences between different nationalities having potential impact on how a gamified solution could look, GD3 (2017-07-14) narrated an example where designing for a Chinese audience needed tweaking from the too US-centric version. All of which pointing at cross-cultural differences, very much in line with what Geert Hofstede (1980, p.25) calls *"the collective programming of the mind that distinguishes the members of one group or category of people from others"*.

➔ Although those four respondents were the only ones defending cross-cultural differences and national culture for being of essence when designing gamification for internationally-involved clients, none of them showed regards to those cultural characteristics alone.

➔ The already mentioned respondents indeed cited other aspects of culture they pay attention to that do not belong to cross-cultural differences on an individual basis like

national culture implies. And by doing this, they joined the rest of the respondents in admitting that company, corporate or organizational culture also plays a role in their decisions when creating gamified solutions for internationally-involved clients. The rest of the respondents paying attention solely to organizational culture in that situation, but before analyzing them, the already introduced respondents will be analyzed:

◆　Among the respondents who acknowledged cross-cultural differences, GD3 (2017-07-14) for example indicated that a gamified solution might differ whether it is intended for someone in a senior or a junior position for example. This reasoning could be traced back to some of the more hierarchical cultures depicted by Trompenaars and Hampden-Turner (1997) such as the Eiffel Tower or the Family types of organizations where the roles and responsibilities are clearly defined and do not overlap as much as in more egalitarian cultures. GD1 states clearly that she often finds in the established *"company culture"* hints to have a better idea of the corresponding national culture, which supports clearly the concept of culture in a pyramid developed by Derr and Laurent (1989), national and organizational culture being interdependently linked.

◆　As for the rest of the respondents, they were quite clear regarding the importance they find in looking at organizational culture when creating gamified solutions, especially when the client is involved internationally. Some were blunt like GD4 (2017-07-18) giving examples of brands spreading the same solutions regardless of countries of destination. CEO4 (2017-07-14) mentioned two different companies in two different industries and claimed that their differences in roll-out lies in the *"difference of the business"* and not *"the difference of the geographic regions that they sit in"*. CEO2 (2017-07-13) just states it, they cater to the *"company culture"*, mostly because they realized that *"company culture transcends almost any other characteristics of a particular group"*, backing up his remarks with vivid examples of how similar people from both sides of the Pacific in the same company were compared to fellow compatriots in another company. A very similar example is cited by CM1 (2017-07-24) between Chinese and Swedish teams from the same company.

However, CM1 backed up his views on national culture by bringing up a much more Maslowian approach to human-beings (1943), motivated to fulfill needs that govern each and everyone of us regardless of nationalities, and even explaining the Barrett's Model that is inspired from Maslow's hierarchy of needs (Barrett Values Centre, 2017).

Overall analysis

The study was able to provide insights on how gamification consulting companies operated when working with clients located in different national markets, but most importantly, was able to show proof of evidence of culture playing a role in that process, which had not been put forward previously.

The insights collected on the working processes of those gamification consulting companies showed a good match with the ones present in current literature detailing the process of creating gamified solutions. However, a link between some of the findings in that matter could be crossed with findings on the focus on culture observed. Indeed, as detailed above, the respondents revealed to be relying on culture to create gamified solutions for internationally-involved clients — which, in and of itself, constitutes a major finding. Some of the respondents on organizational culture alone with their reasons to justify this focus, and others on both organizational and national culture or cross-cultural differences on an individual basis.

➔ Where the findings cross is when realizing that the respondents who valued cross-cultural differences in addition to organizational culture correlated strongly with what the literature expressed as most common, which was the focus on the end-user and its needs in order to create a user-centered solution able to cater as much to the end-user's characteristics. On the other hand, the respondents who were focusing solely on organizational culture, showed much stronger signs of attention to the strategic objectives of the organization, which are commonly mentioned further down the priority list present in the literature.

Conclusion

*This chapter presents the conclusion of this study, starting with a summary that answers concisely to the research questions **"How do gamification consulting companies work with businesses located in other national markets? To what extent culture impacts their process?"**. Following this summary, the different theoretical and practical implications of this study will be described. Finally, the limitations of the study will be outlined while undertaking some suggestions for future research.*

Summary of the study

This study set to investigate gamification consulting companies in their business with clients located in other national markets and/or involved internationally. No research was to be found having for subject this kind of companies with the specific focus on their business when made international. Additionally, another research gap was observed on the side of gamification studies when a corresponding literature review was conducted in order to look for previous findings on the international aspect of gamification. In an International Business perspective, the role of culture was put in focus to explore its impact on the business of gamification consulting companies when dealing with internationally-involved clients. Both those endeavors were to be pursued by asking the following research questions: *"How do gamification consulting companies work with businesses located in other national markets? To what extent does culture impact their processes?"*.

The research included nine qualitative interviews of individuals who were either gamification designers or CEOs of gamification consulting companies, in addition to one culture manager who was experienced in implementing gamified solutions in his business. The respondents were asked about their working processes as well as their approach to culture in general when creating those solutions. Also, a literature review was conducted on the different topics this study falls under as well as the topics uncovered in the interviews themselves. This theoretical chapter focused then on gamification studies to highlight the research gaps mentioned above, as well as cultural and motivational studies to support and put in perspective some of the empirical findings of this study.

The findings were found to be very insightful in regards to the research questions and the scrutinized research gaps. Indeed, culture turned out to be part of each of the respondents' process when creating gamified solutions for internationally-involved clients, especially in the design phase of the project. Even further, the respondents showed clear distinctions in what aspect of culture is most valuable for them. When a little more than half of them relied solely on the organizational culture of the businesses they would work with to create adequate gamified solutions, the rest of the respondents showed signs of relying also on national culture by paying attention to cross-cultural differences and referring to concepts such as cultural dimensions and backgrounds. As for the working process of gamification consulting companies when working with internationally-involved clients, if for the most part the findings seemed to show a very similar process than the one adopted by gamification consulting companies in general, they still shed light on more nuanced and subtle aspects of the process. Indeed, there are reasons to believe that the findings related to the impact of culture was arguably correlated to subtle differences in the information prioritized to create gamified solutions. If the literature leans towards user-centered designs forcing gamification designers to put an emphasis on the end-user's characteristics to cater as much as possible to them, the respondents only looking at organizational culture showed stronger interest for more strategic and business-centered attributes, usually lower in the priority list than the end-user's characteristics.

So the answer the research questions based on the findings of this study *"How do gamification consulting companies work with businesses located in other national markets? To what extent does culture impact their processes?"*: When working with internationally-involved clients, the working processes stay similar to regular working processes depicted in the literature. However, both organizational and national culture do impact subtly their process, mostly in the design phase. In order to create coherent solutions to the audience, gamification consulting companies either cater only to the organizational culture of their clients which translates to giving more attention to strategic attributes to issue a more business-centered design, either cater to organizational and national culture in order to integrate cross-cultural differences in their solutions, indirectly calling for a more focused attention to the end-user's characteristics.

Implications

Theoretical implications

This thesis adds to the International Business field by providing insights about gamification consulting companies and the links between their business and existing theories related to organizational culture and cross-cultural differences. The findings shed light on the role of those concepts in the case of gamification consulting companies working with clients that are internationally-involved and, by doing so, fill the pre-existing corresponding research gap.

The findings of this study also have implications for the field of gamification studies, establishing a bridge between gamification and culture that was inexistent previously. By showing proof of culture being catered to in gamification, whether it is organizational or national, this study successfully connects those two fields.

Practical implications

This study raises the importance of taking culture into consideration when creating gamified solutions, especially when creating those solutions for internationally-involved client. In that sense, other professionals might want to note the extent to which culture can make a gamified solution relevant to certain audiences. Also, this study links this impact to several cross-cultural and organizational theories professionals might want to get inspired from when creating solutions for a certain type of company or culture.

Limitations and suggestions for further research

Despite the fact that this study contributes to a better understanding of the international business of gamification consulting companies and the role of culture in this process, a few limitations have to be taken into account, most of them present in the Introduction chapter. However, one could see those limitations as opportunities for further research to go further by building on the findings generated in this study. Even if this study showed proof of the fields of culture and gamification being connected by studying how gamification consulting companies go about helping internationally-involved clients, it is only being wise to say that further in-depth studies are needed to strengthen and generalize these findings. A first way to

do this would be to conduct similar studies of bigger scales in order to compare the findings of this very study with findings collected from a larger sample than nine respondents. As the findings connecting gamification to culture are about the first ones established, it would be beneficial to study specifically *how* both organizational and/or national culture impact the creation of gamified solutions in an international setting. Finally, in consideration for a longer time of study, a proper observation could allow to measure the efficiency of catering to culture in gamification compared to the contrary.

References

Ahuja, M.K. & Thatcher, J.B. (2005). *Moving beyond Intentions and toward the Theory of Trying: Effects of Work Environment and Gender on Post-Adoption Information Technology Use*. MIS Quarterly, Vol. 29, No. 3, pp. 427-459.

Armstrong, M., Ferrell, J., Collmus, A. & Landers, R. (2016). *Correcting Misconceptions About Gamification of Assessment: More Than SJTs and Badges*. Industrial and Organizational Psychology, 9(03), pp.671-677.

Arning, K. & Ziefle, M. (2007). *Understanding age differences in PDA acceptance and performance*. Computers in Human Behavior, 23(6), pp.2904-2927.

Barrett Values Centre (2017). *The Barrett Model | Barrett Values Centre*. [online] Valuescentre.com. Available at: https://www.valuescentre.com/mapping-values/barrett-model [Accessed 5 Aug. 2017].

Bartle, R. (1996). *Hearts, Clubs, Diamonds, Spades: Players who suit MUDs.* Available at: http://www.arcadetheory.org/wp-content/uploads/2014/03/1996bartle.pdf [Accessed 11 May 2017].

Bogost, I. (2011). *Exploitationware*. [online] Bogost.com. Available at: http://bogost.com/writing/exploitationware/ [Accessed 11 May 2017].

Bond, M. H. (1986). *The psychology of the Chinese people*. New York: Oxford University Press.

Boyle, E. A., Hainey, T., Connolly, T. M., Gray, G., Earp, J., Ott, M., Lim, T., Ninaus, M., Ribeiro, C. & Pereira, J. (2016). *An update to the systematic literature review of empirical evidence of the impacts and outcomes of computer games and serious games*. Computers & Education, 94, 178-192.

Brown, M., O'Neill, N., Van Woerden, H., Eslambolchilar, P., Jones, M., & John, A. (2016). *Gamification and Adherence to Web-Based Mental Health Interventions: A Systematic Review*. JMIR Mental Health, 3(3), E39.

Bryman, A. & Bell, E. (2015). *Business research methods*. 4th edition. Oxford: Oxford University.

Church, A. & Lonner, W. (1998). *The Cross-Cultural Perspective in the Study of Personality: Rationale and Current Research*. Journal of Cross-Cultural Psychology, 29(1), pp.32-62.

Csikszentmihalyi, M. (1990). *Flow: The Psychology of Optimal Experience*. 1st edition. .Harper & Row.

Currier, J. (2008). *Gamification: Game Mechanics is the New Marketing*. [online] Ooga Labs. Available at: https://blog.oogalabs.com/2008/11/05/gamification-game-mechanics-is-the-new-marketing/ [Accessed 11 May 2017].

Czaja, S., Charness, N., Fisk, A., Hertzog, C., Nair, S., Rogers, W. & Sharit, J. (2006). *Factors predicting the use of technology: Findings from the center for research and education on aging and technology enhancement (create)*. Psychology and Aging, 21(2), pp.333-352.

Deci, E. & Ryan, R.M. (2004). *Handbook of self-determination research*. University Rochester Press.

Deci, E. & Ryan, R. (2000). *Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being*. The American Psychologist 55(1), pp.68-78.

Deci, E. & Ryan, R. (1985). *Intrinsic motivation and self-determination in human behavior*. 1st edition. Springer US: New York: Plenum.

Derr, C.B. & Laurent, A. (1989). *The internal and external career: A theoretical and cross-cultural perspective.* In M.B. Arthur, B. Laurence, & D.T. Hall (Eds.), Handbook of Career Theory: 454-471. New York: Cambridge University Press.

Deterding, S. (2012). *Gamification: Designing for motivation.* interactions, 19(4), p.14.

Deterding, S., Dixon, D., Khaled, R. & Nacke, L. (2011b). *From Game Design Elements to Gamefulness: Defining "Gamification".* Paper presented at the MindTrek'11, September 28-30, 2011, Tampere, Finland.

Deterding, S., O'Hara, K., Sicart, M., Dixon, D. & Nacke, L. (2011a). *Gamification: Using Game Design Elements in Non-Gaming Contexts.* Paper presented at the CHI 2011, May 7–12, 2011, Vancouver, BC, Canada.

Dickey, M. (2011). *World of Warcraft and the impact of game culture and play in an undergraduate game design course.* Computers & Education, 56(1), 200-209.

Gallup (2016). *Few Millennials Are Engaged at Work.* [online] Gallup.com. Available at: http://www.gallup.com/businessjournal/195209/few-millennials-engaged-work.aspx [Accessed 11 May 2017].

Gallup (2017). *Gallup Daily: U.S. Employee Engagement.* [online] Gallup.com. Available at: http://www.gallup.com/poll/180404/gallup-daily-employee-engagement.aspx [Accessed 11 May 2017].

Gefen, D. & Straub, D. (1997). *Gender Difference in the Perception and Use of E-Mail: An Extension to the Technology Acceptance Model.* MIS Quarterly (21:4), pp. 389-400.

Geert-hofstede.com (2017). *Countries - Geert Hofstede.* [online] Available at: https://geert-hofstede.com/countries.html [Accessed 8 May 2017].

Guba, E. G., & Lincoln, Y. S. (1994). *Competing paradigms in qualitative research.* In N. K. Denzin & Y. S. Lincoln (Eds.), The handbook of qualitative research. Thousand Oaks, CA: Sage. 105-117.

Hofstede, G., Hofstede, G.J. & Minkov, M. (2010). *Cultures and Organizations: Software of the Mind.* 3rd Revised Edition, McGraw Hill.

Hofstede, G. (1980). *Culture's Consequences: International Differences in Work-Related Values.* 1st edition. Beverly Hills CA: Sage Publications.

Hamari, J. (2015). *Do badges increase user activity? A field experiment on the effects of gamification.* Computers in Human Behavior, 71, pp.469-478.

Hamari, J., Koivisto, J. & Sarsa, H. (2014). *Does Gamification Work? — A Literature Review of Empirical Studies on Gamification.* Paper presented at the 47th Hawaii International Conference on System Science.

Hamari, J., Shernoff, D., Rowe, E., Coller, B., Asbell-Clarke, J. & Edwards, T. (2015). *Challenging games help students learn: An empirical study on engagement, flow and immersion in game-based learning.* Computers in Human Behavior, 54, pp.170-179.

Hoffman, L.W. (1972). *Early Childhood Experiences and Women's Achievement Motives.* Journal of Social Issues, 28, pp.129-155.

House, R., Hanges, P., Javidan, M., Dorfman, P., & Gupta, V. (2004). *Culture, Leadership, and Organizations: The Globe Study of 62 societies.* London: Sage.

Hunicke, R., LeBlanc, M., and Zubek, R. (2004). *MDA: A formal approach to game design and game research.* Paper presented at the AAAI Workshop on Challenges in Game AI, volume 4, page 1.

Hartmann, T. & Klimmt, C. (2006). *Gender and Computer Games: Exploring Females' Dislikes*. Journal of Computer-Mediated Communication, 11(4), pp.910-931.

Huizinga, J. (1949). *Homo Ludens: A study of the play-element in culture*. Routledge & Kegan Paul Ltd: London.

Huotari, K. & Hamari, J. (2016). *A definition for gamification: anchoring gamification in the service marketing literature*. Electronic Markets, 27(1), pp.21-31.

Huotari, K. & Hamari, J. (2012). *Defining Gamification - A Service Marketing Perspective*. Paper presented at the MindTrek 2012, Tampere, Finland.

Iguisi, O. (2009). *Motivation-related values across cultures*. African Journal of Business Management Vol.3(4), pp. 141-150.

Inglehart, R. & Welzel, C. (2013). *The WVS Cultural Map of the World*. WVS. Archived from the original on October 19, 2013. Retrieved 5 August 2017.

Jenkins, R. (2017). *7 Ways Gamification Can Help Retain and Engage Millennials*. [online] Inc.com. Available at: https://www.inc.com/ryan-jenkins/how-to-gamify-career-paths-to-retain-and-engage-millennials.html [Accessed 11 May 2017].

Johnson, D., Horton, E., Mulcahy, R. & Foth, M. (2017). *Gamification and serious games within the domain of domestic energy consumption: A systematic review*. Renewable and Sustainable Energy Reviews, 73, 249-264.

Johnson, D., Deterding, S., Kuhn, K-A., Staneva, A., Stoyanov, S. & Hides, L. (2016). *Gamification for health and wellbeing: A systematic review of the literature*. Internet Interventions, 6, 89-106.

Kalinauskas, M. (2014). *Gamification in fostering creativity*. Social Technologies, 4(1), 62-75.

Kappen, D.L. & Nacke, L. (2013). *The Kaleidoscope of Effective Gamification: Deconstructing Gamification in Business Applications*. Paper presented at the Gamification'13, Stratford, ON, Canada.

Kim, A. (2014). *Beyond Player Types: Kim's Social Action Matrix - Amy Jo Kim*. [online] Amy Jo Kim. Available at: http://amyjokim.com/blog/2014/02/28/beyond-player-types-kims-social-action-matrix/ [Accessed 11 May 2017].

Kim, A. (2011). *Creating Compelling Experiences | Amy Jo KIM*. [online] YouTube. Available at: https://www.youtube.com/watch?v=F4YP-hGZTuA&t=282s [Accessed 11 May 2017].

Koivisto, J. & Hamari, J. (2014). *Demographic differences in perceived benefits from gamification*. Computers in Human Behavior, 35, pp.179-188.

Kumar, J. & Herger, M. (2013). *Gamification at Work*. 1st edition. Interaction Design Foundation.

Landers, R. (2014). *Developing a Theory of Gamified Learning: Linking Serious Games and Gamification of Learning*. Simulation & Gaming, 45(6), pp.752-768.

Lewis, R.D. (1996). *When Cultures Collide. Leading Across Cultures*. Boston, London: Nicholas Braley.

Marache-Francisco, C. & Brangier, E. (2013a). *Perception of Gamification: Between Graphical Design and Persuasive Design*. Springer-Verlag Berlin Heidelberg, pp.558-567.

Marache-Francisco, C. & Brangier, E. (2013b). *Process of Gamification. From The Consideration of Gamification To Its Practical Implementation*. Paper presented at the CENTRIC 2013: The 6th

International Conference on Advances in Human oriented and Personalized Mechanisms, Technologies, and Services. Venice, Italy.

Marache-Francisco, C., & Brangier, E. (2012). *Redefining Gamification*. Paper presented at the IADIS International Conference Interfaces and Human Computer Interaction 2012, pp.227-231.

Markus, H. & Kitayama, S. (1991). *Culture and the self: Implications for cognition, emotion, and motivation*. Psychological Review, 98(2), pp.224-253.

Marschan-Piekkari, R., & Welch, C. (2005). *Handbook of qualitative research methods for international business*. Cheltenham: Edward Elgar. 109-125.

Maslow, A.H. (1943). *A theory of human motivation*. Psychological Review, 50, 370-396.

McGonigal, J. (2011). *Reality is broken*. 1st edition. London: Vintage.

Merriam, S. B. (2009). *Quality research: a guide to design and implementation*. San Francisco: Jossey-Bass.

Mora, A., Riera, D., González, C. & Arnedo-Moreno, J. (2015). *A Literature Review of Gamification Design Frameworks*. Paper presented at the 7th International Conference on Games and Virtual Worlds for Serious Applications (VS-Games).

Morris, M., Venkatesh, V. & Ackerman, P. (2005). *Gender and Age Differences in Employee Decisions About New Technology: An Extension to the Theory of Planned Behavior*. IEEE Transactions on Engineering Management, 52(1), pp.69-84.

Morris, M. & Venkatesh, V. (2000). *Age Differences In Technology Adoption Decisions: Implications For a Changing Workforce*. Personnel Psychology, 53(2), pp.375-403.

Morschheuser, B., Werder, K., Hamari, J., & Abe, J. (2017). *How to gamify? A method for designing gamification*. Paper presented at the 50th Annual Hawaii International Conference on System Sciences (HICSS), Hawaii, USA.

Murray, H. A. (1938). *Explorations in personality*. New York: Oxford University Press.

Nacke, L. & Deterding, S. (2017). *The maturing of gamification research*. Computers in Human Behavior, 71, pp.450-454.

Nicholson, S. (2014). *A RECIPE for Meaningful Gamification*. Wood, L & Reiners, T., eds. Gamification in Education and Business, New York: Springer.

Nicholson, S. (2012). *A User-Centered Theoretical Framework for Meaningful Gamification*. Paper presented at the Games+Learning+Society 8.0, Madison, WI.

Pedreira, O., García, F., Brisaboa, F. & Piattini, M. (2015). *Gamification in software engineering – A systematic mapping*. Information and Software Technology, 57, 157-168.

Rockwood, K. (2016). *The Best Bosses Watch These Numbers to Keep Employees Happy*. [online] Inc.com. Available at: https://www.inc.com/magazine/201606/kate-rockwood/monitoring-employee-engagement.html [Accessed 11 May 2017].

Rose, D. & Meyer, A. (2002). *Teaching Every Student in the Digital Age: Universal Design for Learning*. Alexandria, VA: ASCD.

Ruhi, U. (2015). *Level Up Your Strategy: Towards a Descriptive Framework for Meaningful Enterprise Gamification*. Technology Innovation Management Review, 5(8), pp.5-16.

Salili, F. & Hoosain, R. (2007). *Culture, motivation and learning*. Charlotte, N.C.: Information Age Publishing.

Salili, F. (1994). *Age, Sex, and Cultural Differences in the Meaning and Dimensions of Achievement*. Personality and Social Psychology Bulletin, 20(6), pp.635-648.

Seaborn, K. & Fels, D. (2014). *Gamification in theory and action: A survey*. International Journal of Human-Computer Studies, 74, pp.14-31.

Sun, H. & Zhang, P. (2006). *The role of moderating factors in user technology acceptance*. International Journal of Human-Computer Studies, 64(2), pp.53-78.

Terrill, B. (2008). *My Coverage of Lobby of the Social Gaming Summit*. [online] Bretterrill.com. Available at: http://www.bretterrill.com/2008/06/my-coverage-of-lobby-of-social-gaming.html [Accessed 11 May 2017].

Trompenaars, A. & Hampden-Turner, C. (1997). *Riding the waves of culture*. 1st edition. New York: McGraw-Hill.

Tuunanen, J. & Hamari, J. (2012). *Meta-synthesis of player typologies*. Paper presented at the DiGRA Nordic 2012 Conference: Local and Global –Games in Culture and Society.

Wang, Y., Wu, M. & Wang, H. (2009). *Investigating the determinants and age and gender differences in the acceptance of mobile learning*. British Journal of Educational Technology, 40(1), pp.92-118.

Werbach, K. & Hunter D. (2012). *For the win: How game thinking can revolutionize your business*. 1st edition. Philadelphia: Wharton Digital Press.

Williams, D., Yee, N. & Caplan, S. (2008). *Who plays, how much, and why? Debunking the stereotypical gamer profile*. Journal of Computer-Mediated Communication, 13(4), pp.993-1018.

Yee, N. (2006). *Motivations for Play in Online Games*. CyberPsychology & Behavior, 9(6), pp.772-775.

Appendices

Appendix A

Interview Guide

Introduction

1) How long have you been working around gamification?
2) Can you describe your interest for gamification?

Working with gamification

3) Can you tell me about the organization you work at? What position do you hold?
4) When creating gamified solutions to motivate or engage employees, what is the top information you need?
5) How do the expectations of your clients differ from one another?
6) Do you cater gamification design to the characteristics of your clients' employees or do you have standards that apply regardless those characteristics?

Gamification in an international setting

7) Are you working with clients from different parts of the world?
8) What is the main challenge in working with gamification in an international setting?
9) Would you say that the same gamified solution could motivate/engage as much regardless if the employees are European/Asian/American/African?
10) How differently do you work when designing a gamified solution for a client from one part of the world or another?
11) Did you spot some cultural trends in the demands of your clients?
12) Do you take in consideration cultural aspects when designing a gamified solution for a client? If yes, which ones and how can it materialize in the solution?
13) While designing gamification for a client from a certain part of the world, do you refer at all to Geert Hofstede's or Fons Trompenaars' cultural dimensions studies? Any other?