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A Gameful Organizational Assimilation Process: Insights from World of Warcraft for Gamification Design

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A central process of virtual organization design relates to how newcomers are assimilated into organizational dynamics. Research on organizational assimilation has traditionally investigated “serious” organizational contexts. Nonetheless, video games can offer insights on how such assimilation can be effectively supported. In this article, I propose to look at World of Warcraft (WoW) to understand how individuals can be successfully integrated into online organizations. Through an ethnographic research, made up of participant observation and 36 semi-structured interviews, I explore how specific game design elements support organizational assimilation into WoW raiding guilds. This shows how designers elicit extremely engaging organizational dynamics that encourage players to identify with their organizations. Based on these findings, I propose design considerations for gamifying virtual organizations that draw from the structure of WoW raiding guilds.

CCS Concepts: • **Human-centered computing** → **Empirical studies in collaborative and social computing**.

Additional Key Words and Phrases: ethnography; Massively Multiplayer Online Role-Playing Games; organizations; gamification; virtual organizations; crowdsourcing; crowd working

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1 INTRODUCTION

The process by which an “outsider” becomes a fully integrated member of an organization is commonly called organizational assimilation in organizational research. This process is central in social computing, which has typically approached the creation and growth of virtual organizations, i.e., organizations that exploit ICT tools for enabling remote collaboration, as a task of assimilating newcomers [43].

Research on organizational assimilation has traditionally stressed that successful assimilation implies that individuals become initiated to their task, understand their roles, comprehend the criteria by which they will be evaluated, and learn the organization’s norms [32, 40]. Such research has commonly relied on the analysis of “serious” organizational contexts, whereas ludic domains as video games did not receive the same level of attention.

Kiene et al. [43] showed that studying a Massively Multiplayer Online Role-Playing Game (MMORPG) like World of Warcraft (WoW) can point out relevant mechanisms through which newcomers become assimilated into virtual organizations. They demonstrated that assimilation in WoW may entail collective dimensions, whereby different guilds may merge into a unique

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organization and organizational culture can play a critical role in the players' ability to participate effectively within the merged groups. In this perspective, MMORPGs appear a fertile ground to explore the organizational assimilation process. MMORPGs, in fact, allow players scattered across the world to complete extremely demanding tasks, by making available organizational forms that deeply engage players in organizational dynamics [93]. These are online "communities of practices", i.e., organizational configurations made up of people bound together by shared expertise and passion for a joint enterprise [98], who assist one another and share common resources and knowledge [15]. In MMORPGs, the assimilation is highly "effective", as players fully embrace the identity of the organization and are completely integrated in its dynamics, without showing signs of disengagement [52, 102].

Studying the assimilation process in games like WoW is important because it may point out highly effective design mechanisms to integrate newcomers into online organizational structures, encouraging identification and retention. Previous game and Computer-Supported Cooperative Work (CSCW) research on WoW's organizations focused on the description of social and group dynamics [1, 4, 16, 26, 27, 65, 100], as well as on the role of the organizational culture, intra-group conflict and cohesion for newcomer socialization [15, 43, 73]. In this article, I focus on the players' individual "journey" in becoming full members of the game's organizations, and thus involved in their dynamics. Moreover, I pay attention to the role that specific game design features have in supporting organizational assimilation. Such role is particularly relevant because it shows how designers can directly encourage assimilation and elicit extremely engaging organizational dynamics. Therefore, I study how specific "game design elements", namely the design features that shape the game, affect the organizational assimilation in WoW.

I call this kind of assimilation a "gameful organizational assimilation". Gamefulness is an experiential state typically lived while playing games, which has been described as "hedonic, challenging, and suspenseful" [39, 49]. A gameful organizational assimilation is then the process of becoming integrated into an organization, which is supported by game design elements aimed at making the experience of such process gameful. To study this process, I will focus on WoW players' point of view, emphasizing how they subjectively experience the game through a reflexive ethnographic research. In fact, we need to go back to how players interpret and "perceive" the game worlds they are playing, looking at games "from the inside", as gamefulness is a state that is fundamentally subjective [39, 49].

In so doing, I suggest that the study findings may also offer practical insights for the gamification of virtual organizations that present similar characteristics to WoW raiding guilds. Defined as the use of "game design elements in non-game contexts" [24], gamification has been recently employed to motivate organization members to accomplish organizational tasks [87, 90]. Despite several successful attempts [88], however, it has been noted that gamification might produce short-lived behavioral effects [91], yielding forms of engagement that may rapidly fade away [53, 75]. It appears that current gamification techniques are undermined by the limited variety of game design elements employed in the design process [80]: there is a tendency to use "basic game design elements", like points, badges and leaderboards, which primarily foster competition among users [19]. Looking at the world of MMORPGs, where players are easily assimilated into organizational structures, may thus inspire novel designs that engage users in certain organizational contexts.

To summarize, the main contribution of this article to CSCW research is to explore how WoW's game design elements are able to assimilate players into the game's organizational structures, progressively substituting the context of their everyday life with that of the game's organizations. To this aim, I will report the results of an ethnographic research conducted in WoW, made up of participant observation and 36 semi-structured interviews, and framed within Legitimate Peripheral Participation theory (LPP) [50]. As a practical implication of the study findings, I will suggest a

series of considerations to be applied to the gamification design of virtual organizations that have similar characteristics with WoW raiding guilds.

2 BACKGROUND

In this Section, I will first surface the literature about virtual organizations and introduce LPP theory, describing the characteristics of (online) communities of practice. Then, I will point out central issues in current gamification techniques applied to the organizational domain and outline previous research on WoW guilds.

2.1 Virtual organizations and LPP

Digital technologies are “enhancing” traditional organizations with means enabling cooperative work [56] and distant communication [68], altering their temporal, spatial, and configurational dimensions [69], as well as knowledge distribution across members, teams, and organizations themselves [34].

Virtual organizations precisely identify enterprises composed of members residing in geographically dispersed locations, who use technology to communicate and coordinate the fulfillment of an organizational task [23]. They may differ in terms of incentives, structure, obligations, goals, and resources, including firms employing virtual teams and open source software communities. Other phenomena currently spreading in the digital world, like crowdsourcing and peer-production (e.g., Wikipedia), mobilize a massive online workforce toward a shared objective [21], which may reveal organizational dynamics. Furthermore, social media might enable mechanisms of self-organizing where collaborators distributed across continents work together to meet a shared goal, creating an organizational identity [89]. Organizational configurations can also give a structure to crowd working activities, enabling virtual teams to face dynamic challenges [92].

A central process of virtual organization design relates to how it assimilates newcomers into the dynamics of the organization. These technology-enabled organizations, in fact, necessarily lead to new design issues, due to e.g., misaligned incentives [35] and the difficulty of engaging members in using technology [88] or in working together from a distance [45].

Scholars typically frame the process by which a newcomer becomes an integrated member of an organization as organizational assimilation [48]. Most researchers consider assimilation as an interactive process through which, on the one hand, newcomers become affected by existing organizational practices and norms, thus changing as individuals; on the other hand, organizations change themselves, by being influenced by the negotiation practices that members enact to make the organization meet their needs [94].

Organizational assimilation is traditionally explained as a transition through different stages: i) anticipatory socialization, which refers to socialization efforts prior to organizational entry; ii) encounter, when the newcomer enters an organization and starts being socialized; iii) metamorphosis, in which the newcomer becomes a full member of the organization [40]. Encounter appears to be the most critical stage, as the newcomer needs to reduce uncertainty and successfully acquire the organizational culture [61], so that research has focused on the early phases of assimilation in both traditional organizations [62] and, to a minor extent, in online contexts [7].

In practice, the newcomer needs to learn a variety of shared attitudes, values, and norms, which will allow her to meet the organization’s expectations. A theoretical approach that particularly emphasizes the role of learning in assimilation is LPP theory: it explains how newcomers become part of a community of practice, a specific organizational form made up of people bound together by shared expertise and passion for a joint enterprise [98]. Communities of practice have the following characteristics: i) members are mutually engaged, working together and assisting one another [2]; ii) they have a common aim that they work together toward [48]; iii) they develop a

repertoire of common resources, including a shared understanding of the domain [15]; iv) through participation, community members learn the organizational knowledge [105] and contribute to produce new knowledge [11, 50]; v) through participation, they shape their identity in relation to the organization [97, 105]. LPP argues that learning occurs as one participates in the activities of the organization, acquiring knowledge by doing and observing [50]: it is connected with developing the individual's competence in relation to certain performance criteria that are valued and recognized by others in the organizational order [103]. Newcomers initially participate to the community's less-critical activities, and then find their way toward deeper involvement.

Participation, here, refers “not just to local events of engagement in certain activities with certain people, but a more encompassing process of being active participants in the practices of social communities and constructing identities in relation to these communities” [97]. By participating to the community's activities, the newcomer also constructs her identity, namely she identifies with the community of practice and understands who she is in relation to the community itself. Wenger [97] further specifies that identification involves a sense of belonging which derives from processes of engagement, imagination, and alignment: engagement refers to the active involvement in a mutual process of relationship building and negotiation of meaning that binds the members of the organization together; imagination points to the creation of shared images of the world; and alignment relates to the coordination of efforts to contribute to broader purposes.

LPP has been applied to a variety of virtual domains, e.g., to explain how Wikipedia editors become more involved over time [12], to describe learning processes within open source software [101], to investigate skill development in Earth & Beyond MMORPG [70], to explore knowledge management functions as carried out by distributed virtual teams [28], and to study worker commitment to virtual organizations [103]. More precisely, researchers have called “online communities of practice” those virtual organizations with the characteristics of conventional communities of practice, thus supporting mutual assistance, knowledge sharing, and identity development [105]. CSCW researchers have studied process of collaboration in such communities with reference to e.g., the Archive of Our Own online fandom community [31], the Agile Research Studios system for orchestrating research training within research communities [104], learning groups in StarCraft [47], game development communities on Twitch.tv [29], and technology expert virtual teams within a global automotive manufacturing company [72].

In this perspective, WoW raiding guilds, i.e., game organizations that allow players to face the most difficult contents of the game, share fundamental characteristics with online communities of practices: i) guild members work together and assist one another through mentorship and mutual help [100]; ii) they have a common goal, which is to overcome the game raids [15]; iii) they have common resources and a shared understanding of how to face the game difficulties [99]; iv) they learn how to play together by participating to raids also developing new knowledge [99]; v) and they construct their identity within the guild [67, 71].

In this work, I show how LPP can be used to account for the assimilation process of players into WoW raiding guilds. In doing so, I will focus on how WoW raiding guilds support the development of the sense of belonging in their members, progressively substituting their schedules, places, relationships, and eventually their identity with those of the organization.

2.2 Gamification and World of Warcraft

Gamification has been proposed as a technique to increase motivation in a variety of crowdsourced activities aimed at, for instance, gathering geographical data [60], accomplishing social-purpose projects [45], encouraging sustainable behaviors [81], and enhancing volunteer tasks [59]. Further, game design elements have been employed to improve organization dynamics: Silic and Back [86] and Stanculescu et al. [88], for instance, suggested that implementing score, leaderboard,

and badges within an organizational context may enhance the employees' motivation to share their knowledge and improve their social behaviors. Morschheuser et al. [63] showed that adding ranking lists and points to corporate intranet bank enterprises may support the acquisition of organizational knowledge. Whereas Morschheuser et al. [64] claimed that badges have positive effects on perceived enjoyment in an engineering company. All these studies, however, focused on a limited set of game design elements, namely points, badges, and leaderboards which have been found to often support a "mechanical" engagement, whereby involvement is elicited by behavioristic reinforces, producing momentary effects that might quickly decay when rewards are withdrawn [75]. Thom et al. [91], for example, pointed out that the removal of a point-based reward system undermined participation via contribution within an enterprise social network. Even though research acknowledged limitations of current gamification practices, it substantially kept using basic game design elements that encourage competition [53, 80]. A recent survey of gamified systems highlighted that points, badges, and leaderboards still dominate the gamification landscape [46].

Curiously, gamification research avoided a thorough confrontation with video games like MMORPGs. This kind of game has been identified as a potential source to learn about the management of complex organizations [14, 95]. CSCW researchers investigated WoW's organizational dynamics, structures, and processes. For instance, Nardi et al. [65] depicted the social organization of the game, spanning from brief informal encounters to highly organized play in structured groups, the variety thereof makes the game fun and provides rich opportunities for learning. Bardzell et al. [5] analyzed small group collaborative behavior in 5-person instance runs, which are designed to guarantee that players can exert significant control over their experiences, while social play adds an element of unpredictability to interaction. Williams et al. [100] suggested that guilds are organized either as military barracks, with task-oriented military-style hierarchies, or as tree houses play spaces, defining fundamental dimensions to analyze WoW guilds. Ducheneaut et al. [27] highlighted that successful guilds are organic, team-based organizations and that certain forms of teamwork in WoW might transfer to group work activities outside of games. Kiene et al. [43] emphasized the role of organizational cultures when WoW players are assimilated into guilds, pointing out that assimilation may entail collective cultural integration and result in friction between different organizational cultures: they suggested that their study findings may have wider applicability to social computing research and design.

Building on top of this previous work, my study extends this line of research by using LLP theory to understand individual processes of assimilation into WoW organizational structures and by identifying specific game design elements that affect such processes. CSCW studies have investigated how design affects WoW players' behavior, by highlighting e.g., that boss design may impact on players' raiding styles [4], or that visualization features may influence how the guilds assess the contribution of their members [42]. In this article, I explore how WoW game design elements encourage specific forms of assimilation into the game's organizational structures. This is important because it can make us understand how design can support organizational dynamics resulting in highly effective forms of assimilation, which may absorb and retain players in the game's organizations for very long periods of time. Such understanding could further inspire novel gamified organizational designs.

3 SETTING

In WoW, players advance through different experience levels, by moving across Azeroth, an enormous virtual world. Here, they can develop their characters by accomplishing a series of quests, game missions that require to kill enemies or find objects, in order to gain gold, low-level gear, and experience points. Players can play three different roles, dps (damage per second), in charge

of provoking damages, healer, with the responsibility of healing party members during battles, and tank, absorbing damage for all the companions. Moreover, they have to choose a “race”, belonging to either the Alliance or the Horde, the two main “factions” of the game, and a class, which determines the character’s abilities. Differentiated roles and skills foster cooperation among players, who group in temporary (pick-up groups) or structured (guilds) collectivities in order to complete dungeons (also known as “instances”) and raids. Dungeons have to be completed in teams of five, whereas raids, the most difficult game contents, are accomplished by ten to thirty players, fighting powerful bosses that might drop rare weapons and items. Although players may find casual companions to face these battles, the hardest raids can be accomplished only by being part of structured organizations, namely the guilds.

WoW defined the MMORPGs “genre standards” [22] and actually became the most typical case of MMORPGs [13]. As typicality is a crucial factor allowing for the generalization of results in an ethnographic study [33], I selected WoW as the “object” of my fieldwork: this will provide design considerations grounded in the research results with a more general validity. This work is in line with the tradition of virtual ethnography [38], which attempts to depict the social and cultural practices embodied in virtual worlds [8]. Nonetheless, it focuses on specific game design elements and game dynamics in order to understand how the game drags players to its organizations. This attitude may narrow the fieldworker’s gaze if compared with “traditional” virtual ethnographies. However, it may also allow to identify those game design elements that could be transferred, with opportune adjustments, to other “serious” domains for gamification purposes.

4 METHOD

I conducted an ethnographic research in World of Warcraft during three main phases, alternating participant observation and data analysis periods: from October 2012 to March 2014, from June 2014 to May 2015, and from October 2015 to September 2016. I opted for a reflexive ethnography method, where the fieldworker’s experience is considered worthy to be reported at par of the experience of the other social actors. Actually, in the reflexive approach, the ethnographer does not hide herself under an “objective” recounting, as common in “realist” ethnographies [55, 83]. Rather, she values her subjective perspective, by adopting a first person narration that accounts for her methodological choices and theoretical decisions, making the fieldwork more “transparent” [83]. Reflexive ethnography is often paired with an auto-ethnographic work [76], where the fieldworker’s personal histories are thoroughly analyzed and included in the ethnographic narration. This approach allowed me to see and recount the game world through the “players’ eyes”, by living the game’s experiential effects and report such experience.

Participant observation has been conducted in an Italian server (Player vs. Environment), where players cannot engage in fighting each other with the exception of certain game zones. I played for 150 hours in a Player vs. Player server, in order to account for its dynamics as well. It was my first time playing a MMORPG, so that I could experiment all the phases of engagement implied by the game. I explored two WoW expansions, Mists of Pandaria and Warlords of Draenor, participating in all the game activities, playing all the dungeons available, and reaching the maximum experience level with a night elf mage. To understand the guild everyday life, I enrolled into different guilds, becoming an officer in two of them and performing daily commitments like farming, a repetitive task aimed at gathering materials to be consumed in raids.

Data, including personal reflections and observational notes, were collected by using a diary, which was written down immediately after the completion of a game session. Game documents analyzed include WoW wikis, forum threads, blog posts, and fandom websites. The members of my guilds and, by and large, all my in-game connections were informed of the scope of my research and were aware that our conversations would have been traced: an informed consent were given,

particularly highlighting the voluntary nature of participation. Participant observation allowed me to analyze guilds as organizations observing organizational dynamics and collecting feedback from my guild companions.

Adding to this, I formally interviewed participants belonging to other guilds in order to explore whether the phenomena observed within the guilds to which I belonged could be found even in other organizational structures. As I wanted to widen as much as possible the sample heterogeneity, only two participants, Herik and Tera were enrolled into the same guild. Thirty-six formal interviews (females=15; age average=28.3) have been conducted both in the WoW's virtual world (18) and in the "physical" world (18). The sample was selected by following a purposeful sampling method [57], focusing on the different levels of players' engagement and social centrality, which relates to their reputation and social connections. These two dimensions were taken into account on the basis of the conversations I had with other players during the first months of participant observation. To assess the level of engagement I considered three factors: i) degree of player's experience, i.e., the character's level; ii) age of the WoW account; iii) number of hours played per week.

The final sample is composed of: 16 hardcore gamers (character at the level cap, more than 2 years of presence in WoW, and more than 20 hours of play per week), 9 normal players (character at level 80-90 (Pandaria) or 90-100 (Draenor), more than 6 months of experience, 10-20 hours of play per week), and 9 novices (character at level 30-80 (Pandaria) or 40-90 (Draenor), less than 6 months of experience, less than 10 hours of play per week). Two participants, who left WoW before the interview, were included as outliers, to take into account processes of disengagement. Since hardcore gamers were identified as key informants, they represent the most consistent part of the sample. Hardcore gamers have been further split into leaders, having responsibilities in their guild, and followers, playing a minor social role, in order to take into account the dimension of social centrality. Twenty-four interviewees (plus the two outliers) played mainly in a PvE server, while the remaining ones played in a PvP server. As regards the participants demographics, three stopped studying at middle school, ten held a high school diploma, eleven a bachelor's degree, eight a master's degree, and four a Ph.D.

Participants were recruited by exploiting my in-game social network (23 out of 36), or randomly involved during playing activities (13 out of 36), after a brief interview for assessing their level of engagement and social centrality. On the one hand, the first sampling method allowed for the selection of profiled players. My most expert companions helped me focus on "typical" ways of experiencing the game, as well as find such profiles, thus ensuring their representativeness [33]. On the other hand, the second method widened the heterogeneity of the sample to participants that I did not think of in advance through serendipity. The decision of stopping interviewing was taken when I became aware that additional data would not have produced substantial new results for the aim of my study, thus following a data saturation criterion [10].

Interviews lasted about three hours each (average=157 min; min=130 min; max=188 min). Each interview started asking participants to recount their personal game history. Interview questions aimed to investigate how WoW's game design elements affect players' behavior, identity, social interactions and organizational activities. I focused on the game aspects that appeared more relevant to them (e.g., "Describe the game features that you value more: why are they so important? What kind of effects they have on you as a player?"), and then explored in depth each game design element that participants mentioned, by inviting them to connect it with their playing episodes. To widen the topics explored, I asked participants to describe their everyday life in the game, along with their social and organizational activities. Participants were allowed to introduce themes not foreseen in the initial list of questions. Interviews were recorded either through an audio recorder (and then transcribed verbatim), or the WoW's chat log.

Data analysis conducted for the aim of this work used open and axial coding techniques [18]. Open codes were generated by identifying data features that I considered relevant, breaking the data down into separate parts and labeling them. Then, I used axial coding to connect categories, yielding thirteen abstracted categories (e.g., “Meeting places”, “Daily commitments”). Eventually, I identified three core categories (selective coding) [17]: routines, places, and friends. These themes were connected to the game design elements that WoW employs to assimilate its players. To ensure the findings inter-reliability I employed a “participant researchers” strategy [51], by seeking the aid of my informants to confirm/disconfirm that the data was viewed and understood consistently by both myself and the players.

Before reporting the study results, I have to emphasize that my research might have some limitations. On the one hand, the geographical localization of the servers in which the ethnography has been conducted might have affected the collected results, as players located in different world regions could participate to the game in a different way, given their cultural idiosyncrasies. On the other hand, the research took place in two WoW expansions, which can account for only a part of its (long) temporal evolution. Although I partially retraced the game experience with the past versions of WoW, thanks to the recounts of the players I interviewed, the findings reported in this article may not find confirmation if related to subsequent or previous expansions of WoW.

It is worth noticing that the findings reported in the next Section are grounded not only in the interviewees’ words, but also in all the documents analyzed, observations conducted, and informal conversations carried out during the participant observation period.

5 FINDINGS

WoW’s players can decide to join stable collectivities, i.e., the guilds, to achieve long-term goals and overcome the hardest battles of the game. Some guilds (the so-called social guilds) have a “liquid” structure, by being grounded in personal relationships (e.g., guilds composed of real-life friends) and characterized by loose norms. For this, they present similarities more with groups than with organizations [77]. For several novices and normal players interviewed during the fieldwork, guilds are precisely a place where to “spend some time” and level up, where roles are not clearly defined and they can chat and share experiences, eventually establishing some friendship relations [77]. As their expertise raises, nonetheless, players start being interested in different kinds of guilds.

Being devoted to organize and schedule team expeditions into WoW hardest raids, raiding guilds perfectly exemplify how the game can completely “absorb” its players. Such guilds are organized around a common goal formalized in a mission statement, recruitment policies, and well-defined hierarchies, requiring a heavy dose of management and intricate coordination of player roles. Their structure is much more rigid than that of the social guilds, requiring complete dedication and commitment from their members, so that they might resemble a sort of “total institution” [78].

Taking into account the dimensions identified by Williams et al. [100] to analyze WoW guilds, namely size, faction, formal practices, churn (longevity), and leadership, the raiding guilds that I observed during my fieldwork and those on which the recruited participants reported during the interviews were characterized as follows. They had small or medium sizes, ranging from a minimum of 25 members to a maximum of 70 members. The majority of raiding guilds belonged to the Alliance. With reference to formal practices, i.e., the use of mission statements, recruitment and expulsion policies, all the guilds had formal goals and recruitment procedures. In most of the guilds, newcomers could also be personally introduced by one of the senior members: nevertheless, they had to undertake a probation period. The guilds’ longevity ranged from two months to more than three years. The majority of the raiding guilds were task-oriented with almost military-style hierarchies, in which a firm leader (or a small number of officers) enforced norms and policies. However, in some of them decisions were taken through more democratic mechanisms and structures were

more fluid (i.e., the hierarchies were flexible, responsibilities could be delegated, and players could “climb the ladder”). Despite these differences in their organizational structure, the organizational assimilation process followed the same main path.

Our raiding schedule is M/T/TH/F from 8pm GMT – to 1 am GMT. While we strive for building a friendly environment around the raid team, performance is our only priority. During raiding nights we expect that every member is there on time, leaving all the non-raid related issues out. Hours outside of raid time are for planning the raid whereas raiding time is for the execution of that plan [...]. Each guild member puts the guild’s successes before himself. This is your home and you are a member of our community. We are looking for 1 range dps. We will put you through a three-week trial. It will be necessary to maintain a high standard for discipline and be keen on learning and executing your assignments.

This excerpt from a recruitment notice of a WoW raiding guild highlights the starting point of the “organizational assimilation” process that players have to undertake to become integrated into a WoW raiding guild. As we have seen, scholars noted that assimilation is a reciprocal process in which both individuals and organizations have power [94]. On the one hand, individuals are required to learn the organizational values, norms, and expected behaviors [54]. On the other hand, newcomers often act proactively in their attempts to become assimilated, negotiating their roles and influencing organizations with their prior experience [93]. WoW raiding guilds leave little room to negotiation during the assimilation phases, by asking newcomers to adhere to already established rules, and to leave behind their mundane matters. Since raiding guilds show characteristics that other kinds of guilds exhibit to a lesser extent, prescribing a deeper and more radical process of assimilation, it is interesting to explore how their new members integrate into their structures. The following excerpt taken from my field notes of 12 September 2016 summarizes how the assimilation process unfolds after the initial recruitment:

The probation period lasted one month. In that month, everything I did was under close scrutiny. My performance during raids was constantly analyzed and I had to “work” extra hours to find new equipment to empower my mage. But when I obtained the member rank, things gradually changed. If I think of it now, I can say that most of my routines, like eating and sleeping, gradually changed to follow the guild’s daily living, its raiding times, and the weekly wrap-ups [...]. Similarly, people in my private life started slowly being substituted by my guild companions. Soon, the “free nights” that I had were completely absorbed in the network of relationships that I was building in there.

WoW raiding guilds assimilate their new members through the gradual substitution of the players’ temporality, spatiality and relationships. This is directly encouraged by the game through the “action” of specific game design elements. The substitution of the player’s time is supported by how raids are designed, e.g., the limited time window in which players have to complete the raids and the need to be co-present to face the raid battles. Likewise, the game space gradually replaces the “real world”, as WoW makes available organizational resources and “flexible environments” that can be appropriated by the guild members. Furthermore, the network of the in-game relationships gradually takes the place of the circle of real-life friends, as the game “requires” that players help each other and offers a variety of activities that can be accomplished in pair or in small groups, favoring the flourishing of friendship relations. Eventually, this multifaceted process leads the players to completely identify with their guilds. Table 1 summarizes the main findings of the study also anticipating some of the design considerations that I will discuss in the Discussion Section. In the next sub-sections, I will deepen how the assimilation process unfolds.

Table 1. Main findings

Main themes	Organizational assimilation process	WoW game design elements	Design considerations
Routines	Newcomers learn the guild's routines through the continuous participation in its everyday activities. In so doing, they progressively embrace its schedules, which are shaped by how raids are designed.	<ul style="list-style-type: none"> - Raids reset every 7 days - Raids require the accomplishment of sequences of tasks - Raids are released on a regular basis - Raids prescribe players' co-presence 	<p><i>Support the creation of common temporal routines</i></p> <ul style="list-style-type: none"> - Encourage the organization's senior members to collectively set the organization's rhythms, supporting them with automated tools suggesting time slots when the majority of members are online - Directly affect the organization's times by e.g., increasing or decreasing the availability of new "missions" in specific time slots - Favor the members' co-presence
Places	Newcomers learn the guild's shared meanings and rules inscribed in the organizational resources and environments made available by the game through the constant "use" of these spaces. In so doing, they start transferring feelings usually ascribed to their "real-world spaces" (like the home) to the digital ones.	<ul style="list-style-type: none"> - The guild bank, the guild achievement board, and the guild chat can be appropriated by the guild members - The game environments are flexible and guild members can ascribe their own meanings to them 	<p><i>Provide meaningful virtual spaces</i></p> <ul style="list-style-type: none"> - Design collective spaces where e.g., memories of past achievements can be remembered and shared - Design specialized spaces that allow only specific actions or require prerequisites to be accessed - Design flexible spaces that can be adapted by the organization's members to their own needs, becoming reference points
Friends	By spending their time together, players become mutually engaged in a network of relationships that go beyond the mere collaboration. In so doing, they gradually substitute their "real-world" relations with their in-game friends.	<ul style="list-style-type: none"> - The game offers a variety of activities that can be accomplished in pair or small groups - Raids require a deep knowledge to be successfully completed and such knowledge is better transmitted between players that spend a lot of time together 	<p><i>Favor the development of personal relationships</i></p> <ul style="list-style-type: none"> - Pair each newcomer with a senior member increasing the opportunities for socialization - Allow the organization's members to accomplish boring or burdensome tasks with their "friends"

5.1 Routines: Players align to guilds' routines that replace the schedules of their real life

When a newcomer enters in a raiding guild, she usually needs to learn to organize her own behavior such that it may produce a competent performance [50]. The probation period I recounted at the beginning of this section is precisely addressed to assess the player's abilities and understand whether she meets the guild's standards of performance. After this period, players are usually assigned to a "secondary" team, where they can develop their character further, observe and learn the guild's way of fighting, before joining the main raiding team. Newcomers, therefore, move from the "periphery" of the guild, to its center, as their competence and performance develop. In doing so, they may find help in the guild mentors: it is common that a guild has a mentor for each "class" (e.g., mage, warrior) which can give advice to the newcomer when needed.

On a closer look, however, "apprenticeship", i.e., the process of learning how to play, does not only deal with the acquisition of competence in completing "working" tasks. In WoW's raiding guilds LPP processes are also around learning to be part of the organization and play together. In fact, most of the newcomers are already expert players, as raiding guilds rarely admit novices, rather preferring members that would be capable of contributing to raiding shortly thereafter. Therefore, even though all the newcomers have to learn to cooperate with their new companions and interiorize the guild's idiosyncratic way of playing, often the acquisition of the in-game competence primarily entails the learning of the guild's "routines".

A routine [30], or a habitus in LPP's terms, which takes the concept from Bourdieu's Theory of Practice [9], is a form of repetitive behavior, meant as a series of sayings and doings that recur over time, so that they become wired in the players' everyday activities. LPP refers to theory of practice to emphasize learning as increasing participation in activities (or "practices"), in contrast with the conception of learning as internalization [50]. Theory of practice stresses the inherently socially negotiated character of meaning claiming that learning, thinking, knowing, and behaving are relations among people in activity in, with, and arising from the culturally and socially structured world [50, 82]. In this theory's perspective, learning a routine is to recurrently observe and participate to activities that are already carried out in a particular organizational context: through participation, individuals not only align to the routines that organization members perform regularly, but also become the "carriers" of such routines, contributing to reproduce ways of interpreting, knowing how, wanting, and behaving [9, 82].

The concept of "routine" allows to clarify how WoW players acquire the knowledge needed to become part of a raiding guild. The master and the officers (i.e., the players with the highest guild ranks) are responsible to organize the members' daily living. This often results in precise and fixed commitments that all the members have to accomplish. However, these prescriptions are not formulated as "abstract" orders, but are embodied and recurrent activities. Newcomers learn the guild's routines by observing how such activities are performed by the senior members of the guild and by continuously participating in them. Tera explains:

"you log in and start all the rituals we have been doing for years before raiding. We meet at the tavern to take some drinks and review the strategy, check the gear of the characters, count the items available and verify whether they will be sufficient for the raid."

Jaiss further says that

"The first time I joined a raiding guild, I stayed two months without almost saying nothing. I was observing. Even though I could not play in the main raiding team, being at the meetings and debriefs made me be part of the common way of doing things."

In other words, through participation in the guild's routines and "rituals", as well as the observation of senior members' repeated daily tasks, the newcomers start learning common rules and their

specific role, as well as interiorizing crystallized ways of behaving. In so doing, they also contribute to fix such routines into sedimented and collective patterns of behavior, which are hardly changeable by single players. Mytral, for instance, explains:

"Being enrolled in this guild primarily meant to guarantee my total availability in the week-ends, and at least four hours per day during the rest of the week. It's not like saying 'well you need to be here because these are the rules', but because you have to participate to the meetings to define the strategies, if you want to raid later."

The interesting thing, here, is that by learning the guild's routines during the organizational assimilation process the newcomer primarily aligns to a common temporal order. As we may notice in the Mytral's words, raiding guilds progressively change the newcomers' time by requiring to adhere to new schedules, in order to coordinate their efforts to contribute to the guild's purposes. The guild's core activity, i.e., completing raids at the maximum level of difficulty, entails rhythms and durations that gradually overcome those of the player's "real life". Herik, reporting a common experience among hardcore gamers (16 out of 16 hardcore gamers), explains that:

"You can't choose when you play, the guild sets the schedule for you. There are habits that you must adhere to. I understand that everyone has a different life, job, but when you join a raiding guild you accept its times."

WoW leaves the guilds apparently free to set their own schedules of play, as the game can be played and resumed whenever they want. As a matter of fact, the way the raids are designed prescribes an overarching temporality, to which players have to adapt. For instance, the raids reset every seven days, erasing de facto all the guild's progresses achieved in there. Moreover, each raid requires a careful preparation and post-raid debriefs to understand what worked or went wrong. Blizzard also provides the game expansions according to a schedule that influences how the guilds play the game: to become the first to complete a new raid (a race in which the top guilds are involved), the guild needs to accelerate its activity, commit more its members, and increase the rhythms of playing immediately after the new release is out. Finally, the battle dynamics force the co-presence of a fixed number of players fostering the establishment of collective temporal routines.

Therefore, if, on the one hand, the master, the officers and, by and large, the senior members are in charge of regulating the guild's schedules, on the other hand, how the game is designed influences their "temporal choices". Enea emphasizes:

"If the raid takes place at 9 pm, it means that you have to spend your morning or your afternoon by collecting or making resources for the raid".

Players need to farm before raiding, as this activity provides the goods to empower and heal the team during the raid.

All the hardcore gamers that played in a raiding guild report the same kind of experience. Progressively, the time of the guild sets the pace of the player's life, replacing her offline time. Herik reports a common experience among hardcore players (12 out of 16 hardcore gamers):

"It's not simple to play in a raiding guild, it revolutionizes your time. [...] I stopped going out on Sunday with my friends, and I also had to change the way I was doing sport, as in those times I had to raid".

In other words, the newcomers' sense of belonging to the guild increases as they become part of a new flux of time, in which the schedules of their "real-life" routines are gradually substituted by those of the guild's "virtual" routines.

5.2 Places: Players become part of a shared imaginary that substitutes the spaces of the real world

Just as the offline time is replaced by the guild's time, the player's physical spaces are progressively substituted by the guild's ones. WoW allows guild members to share a variety of organizational resources in the form of virtual environments where they can be present, share experiences, recollect memories. The guild bank, for example, holds items deposited by and available for all the members of a guild. Jaiss says that

“Four months ago it [the guild bank] meant nothing to me [...]. Now that I'm raiding with others, it has become a precious place. I deposit the result of my work, and I can see all the efforts of my companions in there”.

Players show a similar attitude toward the guild achievement board, which is perceived as a place of memory, where to remember the past successes achieved by the guild. Further, the guild chat is interpreted as an immersive environment to be used differently depending on the context, sometimes as an intimate place where to share moments of self-disclosure, other times as a public place where to silently follow orders. Noein expresses a shared opinion among hardcore gamers (11 out of 16 hardcore gamers), by emphasizing that the guild chat is

“a place in which you have to learn how to behave. [...] when we raid, nobody is talking about trivial matters, everyone listens to the leader's orders, we are in a silent room and you must understand that [...]. Outside the raid we make fun of each others, it's like to be in an amusement park”.

Harrison and Dourish [36] stressed that “space” describes geometrical arrangements that might structure, constrain, and enable certain forms of movement and interaction, whereas “place” denotes the ways in which settings acquire recognizable and persistent social meaning in the course of interaction. In this perspective, the guild bank, board, and chat represent dematerialized spaces that are slowly turned into public places during the organizational assimilation. Newcomers learn the meanings, rules, and uses inscribed in there, recognizing their peculiar identity: senior members help them acquire this knowledge, by showing them how they have to be used, or by involving them in ritualized activities. This process is perhaps more evident in those game environments that constitute Azeroth. Raids, for instance, are designed as circumscribed arenas removed from the rest of the game. Players face a raid many times before being able to overcome all the monsters located in there. During these attempts they are enclosed in a “private space” where no one else can interfere. Gradually, they start collectively “living” this space, by using it and by ascribing shared meanings to it. Kayro says:

“The Siege of Orgrimmar, I was in there three times a week for three months and slowly I started seeing it under a different light [...]. It became a place where you could return, where you could feel and live the same things with your companions [...]. It became familiar, I learned its features, how to use them, the names of its different areas”.

Similarly, raiding guilds often have a meeting point where members encounter to manage the guild's daily matters, or prepare for a raid:

“We discovered a round room at the top of The Violet Citadel, in the city of Dalaran, it's called the ‘Purple Parlor’, we loved the balcony that opens to the city... We decided to meet there four years ago and we always returned in there”.

Such spaces are flexible as they can have multiple meanings and be used in different ways. Players create their own meaning for spaces, collectively and individually, through tactics of appropriation enacted by use [25]. As a result, newcomers start transferring feelings usually ascribed to their “real

environments” to the digital ones. Vania expresses a shared experience among hardcore gamers (15 out of 16 hardcore gamers) and normal players (4 out of 9 normal players):

“Every time you log in, you feel to be in the place you belong to. It’s like returning home... It’s somehow reassuring, it’s warm, you’re not alone in there, it’s much warmer than my real house”.

This requires a work of “imagination” in which the organization members create a shared image of the world they inhabit, which in turn increases their sense of belonging [97]. By learning how to see certain places through the guild’s eyes, feeling to be in a common world, newcomers become part of a shared imaginary and stick more tightly to the guild’s identity.

5.3 Friends: Players become engaged in a network of relationships that takes the place of their real-world connections

By frequenting the same places, and by sharing the same schedules, new guild members develop a network of social relations that go beyond the mere collaboration toward a common aim. WoW supports the development of affective bonds among players, by creating occasions for socialization which might turn into long-standing “professional” and personal ties. For example, newcomers often need to follow the senior members to deepen the guild’s strategies and acquire the knowledge needed to succeed in a raid. This leads to opportunities for spending time together, as Feylin says:

“Twice a week she follows me, she helps me find the equipment that I need, and we talk a lot [...]. I’ve discovered that we are similar, I mean, we play the same class, but we also have the same attitude toward the game, and life”.

The life of the guild often overflows into the real world, as players talk to each other about private matters or meet outside the game to share real-life experiences.

In other words, by participating in activities whose meanings the players negotiate together (e.g., turning a burdensome task into a divertissement), they become mutually engaged in a network of relationships that involves exchange of information about “game work” as well as about personal matters, merging daily commitments with atmospheres of friendliness. *“When you farm with others there are always moments of fun, so it doesn’t seem to me that we are working for the guild and repeating the same task over and over”*, Kairo says. WoW shows that the “seriousness” of the organizational activities might be moderated by the interpersonal relationships developed during the assimilation process, actually yielding an increase of the players’ enjoyment.

The majority of the hardcore gamers (11 out of 16 hardcore gamers) report that their circle of friends is, for the most part, made up of their guild companions. Differently from those players who joined the game together and formed a guild of significant others (as it happens e.g., in social guilds), these participants followed the opposite path. Erwin, for instance, explains *“little by little they took the place of my friends”*. While the real-life temporality is absorbed into the virtual one, and home is projected into a series of digital environments, new relationships pervade the whole social life of the newcomer, merging personal and “working” ties, whereby demanding tasks are carried out while chatting and joking, and nights out become occasions to discuss strategies for tearing the last boss down. In doing so, the newcomer starts being recognized not only as an organization member fulfilling “a function”, but as a person and a friend, while her circle of significant others shifts from the real world to the digital one: she feels to be part of a larger community that progressively embraces her whole online and offline life.

To summarize, all the participants that played in a raiding guild confirmed that entering this kind of organization entails a complete change of the ways of playing. Playing in a raiding guild is no more an activity to be performed in the spare time, something that can be carried out depending on the circumstances of the “real life”. Rather, it becomes a daily commitment that practically pervades

the whole player's life. Such commitment, however, is never perceived as a burden, or as something that players are forced to do. Rather, it is lived as "gameful" activity, in which players completely embrace the goals of their guild while experiencing a sensation of fun and enjoyment.

Raiding guilds are not delimited organizations in which players can entry, perform their duty and then return to their everyday life. They exemplify organizational forms extremely involving, which substitute, during the assimilation process, the time, the place, and the relationship network of the players' offline life with those of the guild's daily living. Even though it is sufficient to click on an interface command to quit, leaving a raiding guild becomes more and more difficult, as its organizational dynamics slowly turn the participation from an ancillary activity into the central focus of the players' life. As a result, the sense of belonging to the organization dramatically increases, and players start identifying with the guild's common identity. From this perspective, Casdan's words are enlightening: "*I can't imagine to move to another guild, this is my place, it's where I live*".

6 DISCUSSION AND IMPLICATIONS

In a virtual organization, it is paramount to understand how to commit members to its goals and identity, avoiding abandonment and disengagement [103]. To this aim, the process of assimilation has been noted as critical, as membership is more fluid than in "real-world" organizations and members might see their status as temporary [68]. Relevant issues in assimilation into virtualized contexts have been identified in: i) time zone differences which may affect the creation of a shared temporal experience [68]; ii) the difficulty of replicating a shared context [20]; the difficulty of involving individuals that may not know each other, which may further impact on familiarity among members and with the organization itself [84].

WoW exhibits organizational forms that appear to address such issues, by supporting an assimilation process that yields a sense of belonging and identification, deriving from dynamics of alignment, imagination, and engagement, as pointed by LPP theory [97]. WoW raiding guilds i) encourage the alignment of newcomers to a common temporal order, thus supporting the creation of a shared temporal experience; ii) they foster the development of shared images of the world, thus providing a meaningful shared context of interaction; iii) they engage players in a network of relationships, thus fostering familiarity among guild members and with the guild itself. This leads players to identify with their guild and, consequently, be retained in it. Differently from Kiene et al. [43], who focused on collective processes of assimilation and on the role that organizational culture plays in the individuals' ability to effectively participate within merged guilds, my research stresses the importance of studying individual processes of assimilation to understand identification with the guild and retention in its organizational structure.

Previous CSCW research emphasized that collaborative play in WoW may become extremely engaging [65]. However, it also noticed that many guilds have no mechanisms to build up a player's attachment to the guild, which probably encourages abandonment [27]. Williams et al. [100] highlighted that guild size and real-life bonds may play an important role in tying players together: very small guilds (fewer than 10 members) in which players have real-world bonds that have extended into WoW (the so-called social guilds) are likely to be exempt from churn. My findings point out that in raiding guilds there are effective mechanisms bonding the players together, which work even in absence of previous real-life connections and in guilds of medium size: such mechanisms refer precisely to the process of assimilation and are directly supported by WoW game design elements.

Previous CSCW work highlighted that WoW design features may impact on players' behavior, such as raiding styles [4], or modalities for assessing the contribution within a guild [42]. My ethnographic study extends this line of research by identifying those game design elements that

support the assimilation process into WoW raiding guilds, producing a “gameful organizational assimilation”. As raids reset every 7 days and require the co-presence of multiple players, they foster common routines that take the place of the players’ times. As common resources and flexible spaces can be appropriated by the guild members, players see the game as their new “home”. As many activities can be accomplished in pair or small groups, novel relationships flourish, which eventually substitute the players’ real-life friends. All these elements eventually yield highly effective forms of identification with the guild, which entail a prolonged retention. Several implications follow.

6.1 Design implications

Nardi et al. [65] suggested that WoW’s social organization made up of pick-up groups, guilds, and duels, may have implications for other domains. They emphasized that WoW collaborative model may be useful in designing for interdisciplinary scientific work, in assembling remote teams, and in developing mixed collaboration spaces for eldercare, groups with limited mobility, and corporate team building and training. Kiene et al. [43] also suggested that their study findings about WoW organizational assimilation may have wider applicability to social computing research and design, e.g., when social computing involves the socialization of new individuals and collectives into focused, task-oriented, organized collaboration. Following this line of research, I suggest that the “game design elements” I identified in the game, supporting the gameful assimilation process, may have implications for other “serious” domains. For this, I will surface a series of design considerations based on my study findings that may inspire the gamification design of virtual organizational contexts that present similarities with WoW raiding guilds. In so doing, such considerations attempt to address fundamental issues found in virtual organization design, that is i) the lack of shared temporality and experience [68], ii) the absence of shared context [20], and iii) the lack of familiarity among organizational members [84].

6.1.1 Support the creation of common temporal routines. Akin to how WoW supports the alignment to a common temporal order through the participation to daily routines, gamified systems may design the pace and schedule of the (virtual) organizational life. Instead of asynchronous coordination of activities, which may reduce the number of interpersonal interactions, they could promote social strategies of negotiating and managing work times [74]. As WoW’s guild officers define their own schedules, so the organization’s senior members may be allowed to collectively set their own rhythms and durations, even supported by automated tools suggesting time slots when the majority of members are regularly online. This may establish temporal rules (e.g., task durations, work rhythms, schedules) and rituals to which newcomers have to adapt, leading to the substitution of their previous temporal habits. Further, virtual organizational configurations could encourage newcomers to be present at the performances, meetings, discussions of the most expert members (e.g., by distributing rewards, or by sending reminders, when seniors are online), in order to make them learn from observation and simultaneously assimilate new temporal routines, as it happens to WoW’s newbies. The system may further affect such collective organization of time by 1) accelerating or decelerating the organization’s activity, increasing or decreasing the availability of new “missions” in specific time slots, or making teams compete for being first at completing a goal; 2) requesting that members perform specific tasks before or after others; 3) requiring a minimum number of members to complete a task to foster co-presence.

6.1.2 Provide meaningful virtual spaces. Furthermore, gamified systems could draw inspiration from WoW spatial design, turning organizational virtual spaces into meaningful places, where newcomers can find a new “home”. This could be enacted, for example, by endowing the immaterial environments of the organization with rules to be followed and uses to be appropriated, in order to give them idiosyncratic qualities. Similarly to how WoW differentiates its environments, 1)

collective spaces may gather the organization's outcomes as common resources to be used in further accomplishments, or shared memories where past achievements can be remembered, entailing the perception that the organization has spaces that belong to all its members; 2) specialized spaces may allow only specific actions (e.g., the discussion of certain topics) or require prerequisites to be accessed (e.g., a certain rank); 3) flexible spaces may be adapted by members to their own needs, becoming reference points where to carry out predefined activities (e.g., a point for the evening meetings). By and large, each organization's task could be associated with a particular space, that could be appropriated by the organization's members through its recurrent use and the ascription of collective memories, such as the past goals achieved in there. These digital environments could be further enriched with "digital furniture", objects that may point to their peculiarities, giving them more concreteness and creating a shared context to which refer. Obviously, this does not mean that design needs to follow real-world metaphors, but only that it can exploit our tendency to ascribe meanings and emotions to well-defined entities. By frequenting these places, and by learning how to use them as well as their history, newcomers would acquire a new sense of place, potentially overlapping or substituting that of their real world.

6.1.3 Favor the development of personal relationships. WoW shows that friendship might make the boundaries between "work" (e.g., farming) and leisure disappear, also lightening the execution of boredom activities. Virtual organizations could create opportunities for developing personal relationships during the assimilation, by pairing each newcomer with a senior member appointed to explain the organization's rules. They could be chosen on the basis of their similarity, for example, with respect to attitudes, values and interests, which facilitates friendship formation [3]. The couple could then be assigned to the same tasks and, gradually, the senior could introduce the newcomer to the other members, widening the circle of her personal relations. By making them spend time together, the organization would favor the emergence of new affective bonds. Members would then be allowed to accomplish particularly boring or burdensome tasks with their "friends", intertwining moments of work with moments of leisure. Nonetheless, designers should be aware of the power dynamics that are present in "serious" professional spaces. Uneven power within the dyad e.g., because the senior member assumes the role of the mentor having hierarchical authority [6], may entail negative outcomes, worsening rather than improving the work environment. For instance, mentors can burden mentees with their own problems or abuse them through inappropriate use of power [96]. This would lead the employee to experience forms of "mandatory fun" [58], in which the friendship relationship is perceived as a constraint. For this, organization members should be always allowed to "change" their relationships (e.g., by choosing a new mentor) without experiencing any negative consequence.

6.1.4 Applicability of the design considerations. The three considerations outlined above could enrich the catalogue of gamification designers. They have been left on purpose at a high level of abstraction because they do not want to prescribe well-defined guidelines for how to create engaging gamified organizations. Rather, they suggest that the gameful assimilation process put to work in WoW could be insightful for certain online organizational contexts, moving gamification designers beyond the employment of elementary game mechanics, like points and badges. However, as virtual organizations may differ in terms of e.g., resources, obligations, and goals, designers should consider whether they present similarities with WoW raiding guilds before applying the design considerations to a specific organizational context.

As we have seen in the previous Sections, WoW raiding guilds may be seen as communities of practice in which members work together and assist one another, have a common aim, rely on common resources, share and produce knowledge, and are involved in processes of identity construction. Moreover, the raiding guilds I explored have small or medium sizes, formal goals and

recruitment procedures, are task oriented either with firm leaders and fix hierarchies, or based on democratic processes of participation and fluid structures. “Serious” online communities of practice, such as online fandom communities based on knowledge sharing and creation [31], expert communities [29] and expert virtual teams working toward a common aim [72], as well as open source projects in which people collaborate and self-organize to produce new knowledge [101], may be examples of context applications of these considerations if they present similar characteristics to WoW raiding guilds (or can be similarly designed by e.g., dividing the members in medium/small sub-organizations with formal goals and procedures if the community involves a large amount of users).

Nonetheless, it is needed to highlight that raiding guilds are voluntary “enterprises” so that they quite differ from “serious” work environments where people work because they have or need to (and not because they simply want to). Therefore, it could be more difficult to apply these considerations in contexts that do not rely on members’ spontaneous participation. However, certain crowd working communities have been shown to be driven by connectedness and enjoyment [44] and could benefit from a gameful assimilation process.

6.2 Ethical implications

The organizational assimilation process I surfaced in the previous Sections is not exempt from relevant dark sides [79]. Such process is somehow totalizing and gradually replaces not only the times and places of players’ real life, but also their offline connections with online ones. If, on the one side, this substitution allows players to ease the burden of accomplishing demanding “working tasks” in the game, on the other side, increasing their enjoyment and their sense of belonging to a strict circle of “friends” may result in excessive engagement. MMORPGs, in fact, have been reported to be the leading culprit in cases of problem gaming [52]. Nardi [66] examined how players of MMORPGs might get so engaged in social play that they may spend excessive time playing. This issue should be taken into account when we attempt to translate WoW design strategies to other domains combining play and work elements. If the game frame and its “rules”, such as the possibility of leaving a raiding guild without experiencing any severe consequence on the player’s “career”, may mitigate some of the “totalitarian aspects” of the gameful assimilation process, these aspects may instead be experienced as negative in “serious” virtual organizations.

Moreover, absorbing the individual’s goals in the organization’s identity points to management practices that redraw the boundaries separating work from other social domains. These might lead to consider humans as mere resources to be utilized to contribute to the organization’s welfare, whereby all human abilities and experiences can be exploited for organizational utility without concerns for the separation between free time and the organizational time [41]. It is not rare that game design elements introduced into an organizational context have been perceived as an “electronic whip” [41], whereby “gamefulness” resulted into a more stressful working environment, worse working conditions and exploitation [85]. If gamifying work often appears to seek to benefit the employer and not the employee, applying a gameful assimilation process to a serious context might further empower the organization to the detriment of the worker. Future research could explore these ethical issues, developing approaches for reducing the risk of transforming the individual into a mere means for the organization’s ends.

6.3 Limitations

WoW, at first sight, appears a “workified” game, in which many in-game activities are turned into burdensome tasks that need to be accomplished as efficiently as possible to receive a certain reward. For this, it could be seen as limiting to rely on its game design elements to formulate insights on gamification design: gamification, in principle, aims to provide fun and enjoyable experiences.

However, this perspective is not complete. The experience that players live while participating to the life of a raiding guild is a mixture of sense of belonging, immersion in a shared imaginary, and the feeling of being connected to other players, which do represent an enjoyable experience.

This implies that WoW is indeed an optimal source for gaining insights about the gamification of virtual organizations, if we avoid to focus on how it encourages “work productivity”. Rather we have to look at how it mitigates the execution of strenuous accomplishments by eliciting experiences of gamefulness. WoW turns players’ “work” into enjoyable activities by intertwining different design strategies, which engage, connect, and make players imagine another world. This points out that to make a gameful assimilation process effective we should intertwine and integrate different design solutions that, while increasing players’ involvement in “work activities”, also provide opportunities for experiencing gamefulness. This contrasts the most common gamification practices, which tend to employ stand-alone game design elements, like badges, leaderboards and points [80].

A limitation of this work refers to the fact that the design considerations I provided are not tested on the field yet, where they should be contextualized and adapted to specific organizational domains. Moreover, they are grounded in the observation of a single game: even though the raiding guilds that I observed differed in size and organizational structure (e.g., small vs. medium sizes, military-style hierarchies vs. democratic organization), the gameful assimilation process that I analyzed is circumscribed to WoW. For this, these considerations should be considered as “design hypotheses” [37], which will need further testing in order to prove their validity. At present, their main purpose is to show how games may be a relevant source of inspiration for the gamification of certain virtual organizations, making designers move beyond the employment of points, badges and leaderboards to explore novel “game design elements”. However, much work is still needed to increase and define the catalogue of game design elements available to gamification designers of virtual organizations, and this research is only a first step toward this aim.

Future work could explore how guilds that have different characteristics from WoW raiding guilds (e.g., casual guilds, in WoW and other games) assimilate their members. My study findings focus on organizational structures that exhibit “totalizing” assimilation processes, but do not explain how players that are not fully involved in raiding activities are drawn into the game. Other, “softer”, types of organizational assimilation, demanding less efforts and endeavors from the organizations’ members, could be investigated in order to inform designs requiring lower levels of absorption.

7 CONCLUSION

The main contribution of this article is to outline how players are assimilated into WoW’s raiding guilds through the substitution of the player’s schedules, spaces, and relations. The ethnographic research that I conducted shows the high effectiveness of WoW assimilation process, which leads players to strongly identify with the game organizations. The study findings also point out the major role that specific game design elements have in supporting the assimilation process, directly encouraging the establishment of common temporal orders, shared imaginaries, and networks of relationships. I called this kind of assimilation a “gameful organizational assimilation”, being elicited by game design elements aimed at making the experience of assimilation gameful. As a practical implication of the research, I suggested that my study findings may offer insights for the gamification of virtual organizations that present similar characteristics to WoW raiding guilds. I hope that the findings recounted in this article could inspire different future strands of research, from both the empirical and theoretical points of view.

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