

# Social Media Communication: Re-creating the Context of Social Gaming

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**Abstract.** As social media communication represents an important platform for environmental innovations and service design necessary for creating sustainable living environment and leverage users mobility, in this paper we investigate, by using data from three experiments, how human communication and engagement in social gaming can be utilized in such new contexts, for the purpose of service innovation, brand and service design, building sustainable living environments and well-being, such as smart initiatives. Experimental research data collection had been done during three social media activation Coca-Cola Hellenic 45 Years in Serbia, Smoki Smokic Pirate Adventure, and Kraft Sport Game Campaign.

**Keywords:** Social media communication · Social gaming · Brand and service design · Service innovation · Sustainable living environments · Smart initiatives · Social networks

## 1 Introduction

Social media refers to “mobile and web-based technologies to create highly interactive platforms via which individuals and communities share, co-create, discuss, and modify user-generated content” [1]. According to Kaplan and Haenlein [2] it is important that decision makers keep trying to identify ways in which social media applications such as Wikipedia, YouTube, Facebook, Second Life, and Twitter can make difference for their users and the society in general. Among others, they involve the best practices in social media environment, to create a positive impact on people and their working and living society such as eco-friendly environment, “going green” etc. [3].

People are getting more and more familiar with modern communication gadgets, mobile applications, instant message transmission and exchange. According to global statistics, 29% of total population (around 2,08 billion) utilize Social Media [4], while 52% of total online population uses two or more Social Media sites [5]. On the other hand, according to Global Fortune 500 firms [6], all together with older tools (LinkedIn, Twitter, Facebook, YouTube, and corporate blogs) companies are embracing new social media (Foursquare, Instagram, Google+, Pinterest) using actively at least one of them, with the purpose of exchanging information and engaging in different

activities. That refers not only to the importance of Social Media platforms in defining and re-defining communication and collaboration in working and living environment, but also to the possibilities for online user engagement expand toward new ways of communication, with huge potentials to affect and re-create the context of the networked users involvement, relationship development and user mobility.

## 2 Social Gaming and Service Innovation

Although it is most commonly considered that online gaming tends to isolate players from their social environment, researches showed that establishing relationships between players [7], their involvement in social community, making friends, and exchanging personal information online, is of a high importance [8]. Social gaming helps not only creation of social interactions, social engagement, and social experience through entertainment as a major source of enjoyment and pleasure in contemporary societies [9], but it also represents the source for encouraging users to participate in joint initiatives and creative processes by producing and distributing information through collaborative exchange, such as writing, content sharing, social networking, social bookmarking, and syndication [10].

Unlike playing games in solitude, social gaming refers to playing online games which enable or require social interaction and engagement between players [11]. Interactions among players, even considered as “weak ties”, may contribute to social and emotional well-being [12]. Furthermore, social gaming could contribute in measuring the extent to which players are capable to exploit the potentialities of single or multiple social media platforms [11]. Data gathered from players through such gaming platforms could be valuable source of information for human-centered service design as well as to enhance living environments and upgrade existing services. The network of relationships created among players represents the true resource of knowledge which ultimately provides “the creative potential for “innovation” – the so-called “core competency” [13].

## 3 Related Works

The most significant “core competence” [13, 14] of social gaming, as the platform for service innovation and design in comparison with other forms of social environments, is the sense of competition and belonging among players. In addition to that, collaboration and cooperation also have been distinguished as the key effects of gameplay [15]. Based on that, Volda, Carpendale and Greenberg [15] classify social games into three categories: competitive, cooperative and collaborative. Competitive games require players to oppose one another in the game; in cooperative games players’ goals are neither directly opposed nor completely aligned, while in collaborative games players win or lose together because they share the same goals [16].

The study Volda, Carpendale and Greenberg [15] was carried out on 36 players, recruited in 12 groups of different age, with the purpose of understanding massively multiplayer online games in sense of competition, cooperation, and collaboration of

participants during playing console games. The goal was to better understand individual - and group-oriented practices in social gaming. One of the factors distinguished as crucial for collaboration and conversation among players, was group cohesion. No matter the type of the game - competitive, cooperative, or collaborative – cohesion among the groups was important to be achieved. Also, establishing social relationships was classified as of high importance of players’ well-being and identity. The research, Volda, Carpendale and Greenberg [15] identified four classes of practices in group playing: presence of shared awareness, reinforcing shared history of playing, sharing in period of success and failure, and engaging in interdependence and self-sacrifice. Both group- and individual-oriented gaming practices were present in competitive, cooperative, and collaborative games.

### 4 Social Gaming Honeycomb

Given the fact that services dominate contemporary market, creating about 70% of the global aggregate production and employment [17], one can easily conclude that providing upgraded service is required in business and living environment. Heaving in mind that service innovation presents an idea that leads to performance enhancements considered to be new benefits [18], we believe that social gaming, as a source of service innovation, has the potential to create various sustainable social environments which differ from each other based on the type of services and benefits offered. In that sense the important role has the so-called “honeycomb” framework (Fig. 1) [1] that refers to and defines the particular social media functionality or seven social media building blocks [1]:

- **Identity** representing the extent to which users reveal their identity in a particular social media setting;

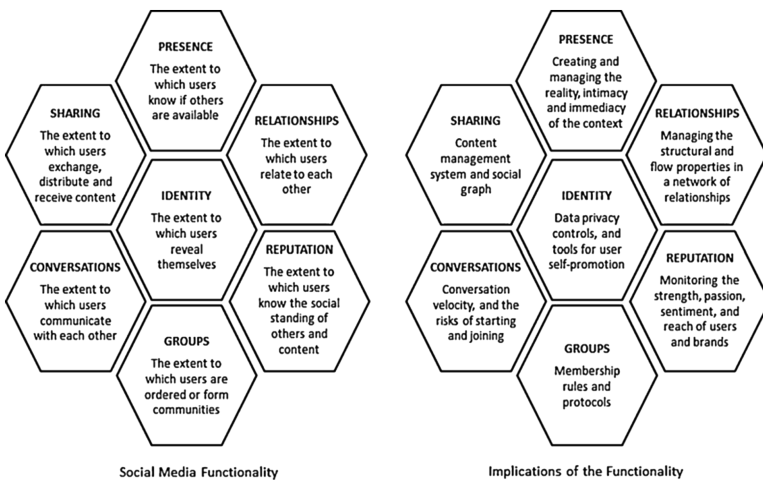


Fig. 1. The honeycomb framework

- **Conversations** representing the extent to which users communicate with each other in the social media setting;
- **Sharing** representing the extent to which users exchange, distribute, and receive content;
- **Presence** representing the extent to which users can know if other users are available in the social media setting;
- **Relationships** representing the extent to which users can be related to other users;
- **Reputation** representing the extent to which users can identify the standing of others, including themselves, in a particular social media setting, and
- **Groups** representing the extent to which users can create communities and sub-communities.

Each of the seven elements can be analyzed in detail so to provide a better understanding of players' experience during social game, and, furthermore, possible implications on the society and the quality of living environment.

**Identity** implications serve as tools for self-promotion. Social gaming, as a platform for expressing players' act of competing and rivalry for supremacy, promotes users' playing achievements and their personal profiles. According to Kaye and Bryce [8], the degrees of autonomy and competence of players determine the degree of game enjoyment.

**Conversations** refers to conversation velocity, and risks of starting or involving in conversation. "Social-oriented players" [19–22] emphasize social factors as key element of social behavior and communication. There has been established the relationship between social factors in gaming and enjoyment [8, 23, 24], as well as between the time spent playing and social motivators [25].

**Sharing** refers to establishing new contents and social relations during play. Smyth [26] suggests that playing in so called Massive Multiplayer Online Role-Playing Games – MMORPG [27] creates feeling of shared online media space among players and has positive social outcomes, in comparison with individual playing experience.

**Presence** refers to the extent to which other players are available. Unlike individual gaming, the presence of other players in social gaming provokes greater excitement due to highly competitive environment and individual's ability to monitor other players' performance and achievements [28].

**Relationships** represent the extent to which players can be related to other players. The importance of making relationships between players in MMORPG [7, 29], involved in social community, motivates players' enjoyment especially when making friends and getting in touch with other players' personal information online [8]. Nardi and Harris [30] state that there must be players around in order to compete even individually.

**Reputation** refers to the extent to which users can identify the standing of others, including themselves [1]. The feeling of social belonging [31] sets MMORPG as the social media environment in which players show higher enjoyment and greater acquisition of new friendships.

**Groups** represent the extent to which users can form communities and sub communities. Social gaming sets itself as a specific social media environment, characterized by game amusement which is affected by players' performance and game-related self-efficacy [32].

In social gaming, players’ engagement and existence of online communities and “clans”, with the emphasis on making online friendships, has been found as one of the key motivational factors, especially for playing MMORPGs [33]. Comparing to other social media networks, we found that social gaming could be addressed to its own honeycomb frameworks of building blocks. As source for the comparison analysis we used functionality blocks of the following networks: YouTube, LinkedIn, Foursquare, and Facebook (Fig. 2) [1]. Based on their honeycomb frameworks, presented social media platforms tend to concentrate on three or four primary blocks [34]. LinkedIn shows the identity as the greatest social media functionality, followed by relationships and reputation. Foursquare displays presence as the greatest social media functionality, followed by relationship and identity. YouTube distinguishes sharing as its greatest social media functionality, followed by conversations, groups and reputation. Facebook is undoubtedly well known for making relationships, which is followed by presence, identity, conversation, and reputation of its users.

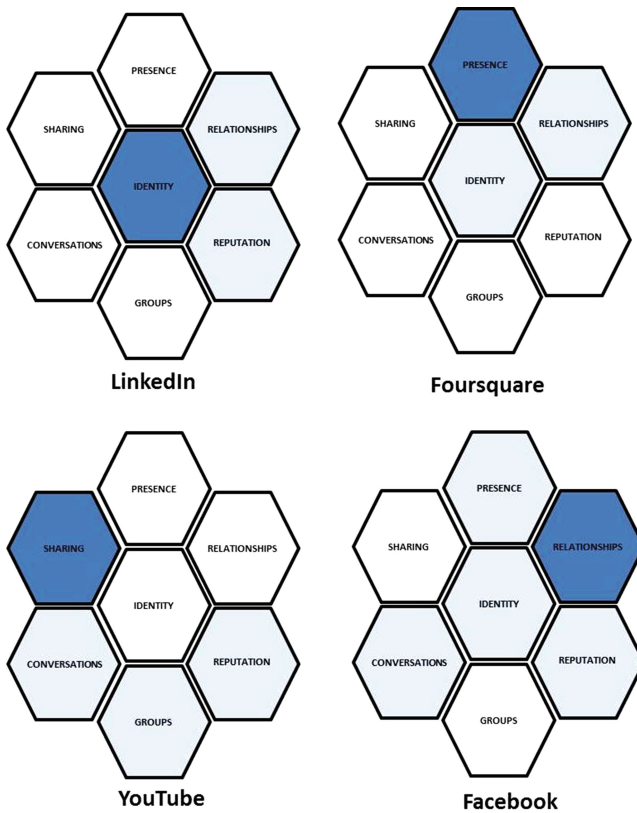


Fig. 2. Honeycomb frameworks of different social media

## 5 Research Approach

In three research experiments we were analyzing players' behavior during their participation in social gaming, in sense of their engagement during play, the decisions they made while making relationships with other players, and the implications of their decisions and presented behavior. Our research experiments included Social Media Activation 45 Years of Coca-Cola in Serbia, Smoki Smokic Pirate Adventure, and Kraft Sport Game Campaign. We will also present the goals and expected outcomes of our ongoing project Twix "Pick a Side, Twix is back" Theoretical framework has been based on Activity and research methodologies from user-centered design process [35, 36]. The goals of the experiment were to:

- describe group behavior and participation of the players;
- analyze social interactions, relationships, and participating in playing;
- understand established relationships through social engagement and potentials for further usage in service design and smart innovation implications.

## 6 Research Experiments and Results

The idea of the first experiment, Facebook activation 45 Years of Coca-Cola Hellenic company promotion in Serbia, was to organize corporate social responsible campaign with the purpose of involving and uniting local communities in Serbia to support development of public fitness zones. The social media campaign was executed on Facebook and lasted for two months, supporting competition among municipalities. It ended as one of the regional most successful campaigns ever, with over 1,7 million votes and 200,000 weak ties participant collected, so called fans, during activation period [37]. The results showed the power of social interactions and social media, proving that the feeling of belonging can be initiated through community well-being intentions (Fig. 3).

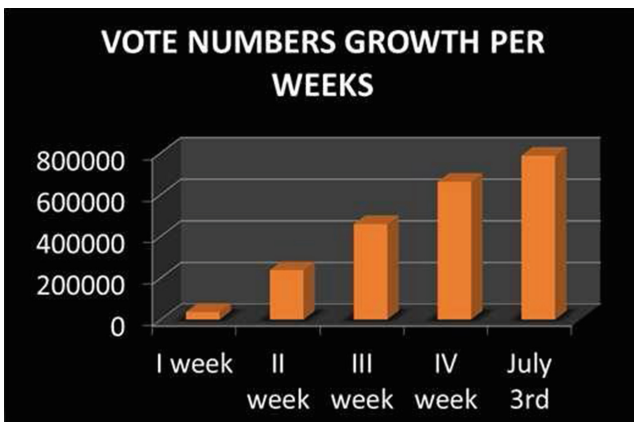


Fig. 3. Vote number growth per weeks

The social gaming moment of this activation was seeded in the group competing elements, spontaneously developed between participants throughout campaign period. The increase of the collected votes in the first four and a half weeks of the activation was much greater than expected. There was 36.153 votes in the first week, followed by the increase to 236.721 during the second week, and peaking 795.725 votes in the first week of July [37]. The activation rules included lower interaction complexity, minimizing engagement difficulties, reducing steps in the process of voting, enabling multiple voting, maximizing sharable opportunities and possibilities for exposing leadership in the game. Our design system was based on simplicity and provocation that participants are engaged on something they are doing for their local community well-being (Fig. 4).



Fig. 4. The Coca Cola game interface with listed participant municipalities

Qualitative results for the research were collected from comments left by participants on Facebook pages and other social media channels, while quantitative data were collected from activations database. Our prediction was that the players would online cooperate and make relationships. But, through the time, online relationships established by players moved on offline in a form of organized online groups' initiatives (e.g. organizing street stands to provide support to potential players offering help with logging in, voting, etc.). Even more, the players started to spread the eco-system themselves by making video tutorials, starting blogs, inviting people to vote. We found out that the crucial factor for the social interaction and engagement was emotional attachment to the belonging community and the strong and respectable organization to trust behind the activation. Not only the participants were playing individually on everyday bases but they started to organize themselves in groups on daily routine, to vote for their local community and to win the prize – fitness zone in their neighborhood. Apart from sharing and obviously relationships, in case of Activation 45 Years Coca-Cola in Serbia we distinguished identity of participants, conversation, and groups' coherence as the most important engagement needs/social media building blocks for the particular social game players.

Second experiment was executed for the Smoki Smokic online campaign, the sub brand of regional emotional consumer goods brand Smoki, where the main interaction

and engagement hub has been online game named Smoki Smokic Pirate Adventure (Fig. 5). The idea was to increase product sale with strong support from digital communication channels. It was a regional campaign which embraced 6 neighbor countries. The game was designed for individual gaming experience and an only indirect connection with other players was leaderboard with the list of top players. The fact that game had regional character was crucial for spontaneous social interactions establishment. It started on the Smoki Facebook page as spontaneous sharing of tutorials, how to win the game between players, and, eventually, ended with creation of secret codes they used in the game in order to reveal their location and belonging to certain socio-cultural communities.



**Fig. 5.** Smoki smokic pirate adventure online game

After revealing their identity and belonging to certain groups it was easy to transform individual playing experience into social gaming. Throughout the time communication established over the brand, Facebook page evolved into between countries competition and, eventually, became platform for new relationship development and interpersonal and international joint initiatives. This experiment showed to us that people are in need of social interactions and even not initially planned relationships between players were spontaneously established on available social media platform. According to this we could say that social network infrastructure developed in the last 10 years fundamentally changed the way we are playing online, as if no other way of gaming exists anymore then social gaming. In case of Smoki Smokic online game, reputation and identity of the players were important engagement factors, since the players were highly competitive. Also, group power and coherence as well as establishing relationships should be considered in this case as crucial social media building blocks.



Our third experiment was Kraft Sport Game Campaign. Sport is traditional Hungarian countline brand, energy bar that satisfies the need for mental boost because it provides tasty energy. The task of our campaign was to create integrated campaign for Sport autumn promotion, and lasted for ten weeks, from August to October 2010. The rules of the game were simple: potential players were supposed to buy Sport bar, register with a code on brand site or on Facebook, play the game, collect the points, redeem the points for prizes and win the prize.

Among the key goals there were two: rising brand awareness and increasing product sale. Kraft Sport Game Campaign made a great success. We managed to reach players commitment, focusing more on converting visitors of the sites into players. There were 72 615 registrations made, with 353 919 chocolate bars redeemed. It was important that we attracted people to play the game and to commit to the brand. Frequent Players achieved long-term relationships with the brand established, and also among themselves. Frequent code uploads contributed offline sales of the Sport chocolate bar.

Although gamers were encouraged to communicate during the game, they also found their motivation to communicate through the social networks. Furthermore, after the end of the campaign, the players continued to communicate, which showed us that the social game was the trigger for establishing and building their future relationships and even virtual communities. In case of Kraft Sport Game Campaign, the game itself became the communication platform. Based on that, we concluded that the social game can actually exceed the goal of the competition itself – the game became the factor of group cohesion. There were established such good relationships among the players throughout the game campaign, that once the campaign was over, the participants continued to log in and communicate about different things. That was the anomaly that we did not count with at the beginning of the campaign, which eventually changed the context of the social game itself (Fig. 6).



Fig. 6. Sport game virtual room for socialization

Our third experiment, Kraft Sport Game Campaign, showed that social gaming has the potential to surpass and exceed its own goal, and to become the community on its own, created by the players themselves. Unlike two previously mentioned experiments, in Kraft Sport Game Campaign players actually changed the context of social gaming - from competition to collaboration, from the goal of winning the prize to the social platform suitable for starting initiatives, making decision important for achieving community goals, with potentials for smart initiatives or projects aimed to contribute livability and sustainability of the environment.



Fig. 7. Twix internal campaign

In case of Kraft Sport Game Campaign, reputation and identity of the players were strong engagement factors, followed by making intensive conversation and establishing long-term relationships which contributed enhancing group power and coherence.

Our recent ongoing project is Twix “Pick a Side Twix is Back” (Fig. 7), which purpose is to make employees of the organizations aware of the upcoming national

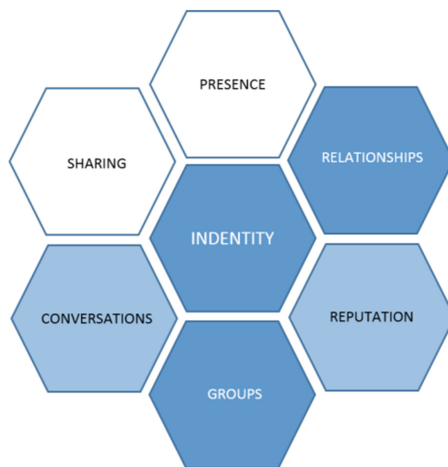


Fig. 8. Proposed honeycomb of social gaming

product campaign and, based on that, to make them start getting in touch and making relationships among themselves. In this experiment, we have moved the game from the external to the internal environment, observing participants behavior and changes in their communication. Our presumption is that the employees, involved in the social game, would accept the game as the cohesive platform for tightening the relationship between employees and provoke their broader engagement, such in social corporate responsibility initiatives and contributing the well-being of the communities they live in.

## 7 Conclusions

With the three experiments, we were investigating players' engagements in social games and the possibilities to use social games as platforms for extending players' cooperation and collaboration for more realistic purposes, such as contributing sustainable living environments and users' mobility.

The case of Coca Cola experiment, social media was the place of collaboration, while the site itself served only as a support. Players built new type of relationships, united for the common cause. The social game served for expanding players' communication platform, while the distinctive sense of competition, cooperation and collaboration among the players was showed. In second experiment, Smoki Smokic Pirate Adventure Game, there was obvious that the players actually dislocated their communication platform – they played the game on one platform, and transferred the communication to another. Competition among themselves was present, but collaboration was nurtured over the Facebook, long after the campaign was over. In the third experiment, Kraft Sport Game Campaign, it became obvious that the social game became more than just the playing platform. It served as the trigger, in the best possible way, for upgrading collaboration among the players. Game involvement was important, but not sufficient for the participants, because they showed they were motivated to engage themselves, share information, and start to believe in their own common goals, more than in promotion of the brand or the purpose of the game.

Upon the outcomes of all three experiments, we also concluded that presented social games share the same “honeycomb” social media building blocks, and the same strongest functionalities which characterize social gaming media environment (Fig. 8). First of all identity of the players, then relationships established among the players, and last, but not the least, group coherence needed for achieving long-term goals of the social game players: individual contribution to group sessions; the group contribution to individual sessions; the correlation between generated creative artefacts; the possibility to control created collective artefact.

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