

Gamification and performance: design challenges when using games to enable alternative ways of engaging with theatre

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Abstract: In this paper I present the challenges of combining game design with theatre conventions in relation to the implementation of a hybrid form of pervasive performance, Chain Reaction. I use game design as part of my research process in order to explore how participatory games can be used to enable alternative ways of engaging with performance and theatre, more specifically how games can foster artistic creativity. I construct my theoretical framework by looking at moments of history in which games and theatre have converged becoming art forms of their own, and I discuss how they viewed concepts such as competitiveness and creativity in order to contribute to understanding the current phenomena that Chain Reaction is an example of, what I call pervasive performance, and which can also be seen as an example of gamification. My argument is that in Chain Reaction, game's competitiveness lure players into engaging in aesthetic activities e.i. devising theatre and acting, while simultaneously allowing them to manipulate their engagement in the game and enjoy the thrilling experience of making theatre and performance in public spaces.

Keywords: *interactive theatre, pervasive game, creativity, competitiveness, public space, gamification*

1 Introduction

In her important work on Ubiquitous Games (UG), Jane E. McGonigal describes pervasive games as part of a larger family of games – UG - that emerged in the turn of the twenty-first century as a result of the convergence of the fields of ubiquitous computing and experimental game design (McGonigal, 2006: 1). Pervasive gaming is an emergent genre in which traditional, real-world games are augmented with computers (Magerkurth, Cheok, Mandryk, & Nilsen, 2005: 1). Gymkhanas and scavenger hunts, for instance, are traditional games can be traced back in history and across civilizations. But it is the application of information technologies – The Internet, mobile phones and position technologies – that have provoked its rapid proliferation and development.

In “Pervasive Games: Theory and Design” from 2009, Montola, Sternos and Waern describe pervasive games as “a game that has one or more salient features that expand the contractual magic circle of play spatially, temporally or socially” (3).

“Magic circle of play” refers to the metaphoric barrier that separates the reality of a game and the reality of the world around. It is “a ritualistic and contractual boundary based on a somewhat implicit agreement which function is to forbid the players from bringing external motivations and personal stories into the world of game and to forbid taking game events into the realm of ordinary life” (11). Pervasive games' most interesting feature is how they *expand* the magic circle and occupy public spaces, take time and influence people that were supposed to be outside of the game, outside of the play-ground. “Pervasive games pervade, bend, and blur the traditional boundaries of game, bleeding from the domain of the game to the domain of the ordinary” (3).

Interactive theatre is a genre that aims to break the “fourth-wall” that separates actors from audience by including the audience in the show verbally and physically. Strategies may go from holding props, providing performance suggestions such as improvisational theatre, share the action's real-world-setting such as street theatre (or site-specific theatre), becoming characters in the performance such as Theatre of the Oppressed by Augusto Boal, and more.

These forms of interactive theatre are part of a tradition -the so-called avant garde - that aims to include the audience in the creative process, in an attempt of democratization of the arts that traces back to the 1950-60s in Britain with the development of improvisational theatre, and also in the New York scene with the Happenings. Practitioners such as Clive Barker, Viola Spolin and Keith Johnstone used game forms and strategies to incorporate the audience in the performance that enabled alternative dynamic ways of doing theatre for actors and also opened for participatory opportunities for audiences.

The “Happenings” revolutionized the (fine) art scene by challenging the position of spectators as participants, not as mere visitors. It also introduced a lack of direction in the event, so that the outcome was unpredictable, and most importantly, explicitly claimed that everyday life, the materials of the ordinary, were the material for making art.

Augusto Boal’s “Theatre of the Oppressed” and his many sub-versions - *Forum Theatre*, *Invisible Theatre*, *Legislative Theatre*- also empower the spect-actor (spectator + actor) as agent in the art process, and take it a step further; the sole purpose of theatre is to empower spect-actors in an aesthetic act to raise awareness over social and political issues, and ultimately provoke political change (2008).

Contemporary interactive theatre is grounded on these earlier forms but adapted to our times and to the technologies at hand. Groups such as the German *Rimini Protokoll*, the Spanish Roger Bernat, and the British *Blast Theory* produce experimental shows characterized by great use of new media, the blurring of the distinctions of the arts involved in the event, and use of play and games as chore elements to engage audiences.

In this sense, pervasive games and contemporary interactive theatre can both be seen as phenomena of the same tradition; the tradition of democratization of the arts that seeks to empower people through participating in aesthetic acts and processes that emerge from the blurring of art and everyday life.

I propose looking at the history of the convergence of game culture and interactive theatre in search for fruitful connections and points of divergence that may through some light into contemporary pervasive theatre and, more specifically through the analysis of the experimental works that I have developed as part of my PhD project, Chain Reaction.

Chain Reaction¹ is a hybrid form of pervasive game and interactive theatre which goal is to make participants engage artistically with public spaces, and ultimately create a short piece of theatre as a result of their interaction with the city. It was developed from August to October 2009 in the city of Berkeley, California, and orchestrated for the second time in *Theaterhouse Avantgarden* in Trondheim, Norway, in May 2011.

In the second part of the paper, I shall make an account on how I created and designed Chain Reaction, how I combine game and theatre elements that are distinct and discernible, and discuss how it might contribute to understanding the different creativities required in games and theatre. I will conclude with a discussion on how the participatory game form and how connecting to competition enables alternative ways of engaging with theatre.

2 Theatresports, Happening and Pervasive Games: Competitiveness and creativity

If we look at the instances in history in which games and theatre have converged, we find two fundamental moments in which this convergence has resulted in new art forms of their own: improvisation, and more specifically theatresports with Keith Johnston and the Happenings with Allan Kaprow.

Theatresports is a form of improvisational theatre that “uses the format of competition for dramatic effect”. On the stage there are opposing teams that perform scenes based on audience suggestions, under the eye of the judges, who decide on the winners also influenced by audience reactions and comments (Johnston, 1979). Johnston developed this concept of theatre inspired in his observations on techniques used in professional wrestling to generate heat and audience reactions: he adjusted the formula of the wrestling competition and created theatre competitions, which tactics and strategies have grown complex since and are still popular today.² Competitiveness is the driving force for actors to display their most spontaneous and creative skills, as well as it also engages audiences in the “heat of the moment” into participating with creative suggestions.

¹ CR was designed and orchestrated by myself and my team of collaborators - graduate students from Theatre, Dance and Performance Studies and other departments. We organized two test runs with a UC Berkeley bachelor class “Come out and play”, followed by one public performance on the 17th of October, making a total of three iterations of the game model. Two more iterations of the game took place on the 27th and 28th May in the city’s experimental theatre house, in Trondheim, Norway.

² Theatresports is a trademark that needs to be purchased by theatre groups if they want to use the formula

Around the same but at the other side of the Atlantic, Happenings were also connecting to ideas of improvisation, spontaneity and play, however with a problematic relationship to competitiveness.

To Allan Kaprow, main initiator of the Happening movements and indubitably its most fervent theoretician, happenings were events generated in action. They had no plot, no obvious “philosophy” nor purpose. As he puts it “they materialized in an improvisatory fashion, like jazz, where one does not know exactly what is going to happen next. It is the involvement in “chance” of everyday-life that allows producing art that is “less artistic and more lifelike” (2003: 18).

Kaprow’s vision of how a happening should be conducted connected to improvisation or free play, but in his case, improvisation was purposeless, free of competition and filled with chance. He himself theorized about play and games in his essay *The Education of the Un-Artist*;

Play, of course, is at the heart of experimentation. (...) Gaming involves winning or losing a desired goal. Playing is open-ended and, potentially, everybody “wins”. Playing has no stated purpose other than more playing. It is usually not serious in content or attitude, whereas gaming, which can also involve playing if it subordinated to winning, is at heart competitive (Kaprow, 2003: 161).

Kaprow considered “play” as originator of art and suggested that art lies in free play with the ordinary through embracing chance. In this view, games, rules and competitiveness should be avoided. Gaming’s subordination to winning compromises the playfulness that leads to artistic creativity, based on free play and experimentation.

To Keith Johnstone, on the other hand, the game form of competition was fundamental in developing a theatre type that could create the atmosphere and the context for free play and improvisation to appear, not only for the actors but also for the spectators who, in the heat of the moment, would dare to participate in the event. The format of competition enabled the possibilities for free play, spontaneity and experimentation to appear.

With these two opposite perspectives on games and competitiveness and how they influence creativity and response in the audience, I hope to be able to contribute to this debate with my practical work, Chain Reaction, which serves as an example of how games can be used to promote artistic practices.

We are at a time in history in which games are everywhere, in which we are told to connect to the play instinct in order to “do something else”, in order to work, in order to consume, and in Chain Reaction’s case, in order to do theatre. These are all examples of what is very recently being called “gamification”, defined by Deterding, Dixon, Khaled and Nacke as “the use of game design elements in non-game contexts” (2011: 1). The advocate of the benefits of this philosophy is Jane McGonigal with her recent book “Reality is Broken” (2011) in which she looks at why and how games make us happy and why we should make everything look like a game. Critical views warn for the misuse of gamification by the industry, that might wrap consumerism in the form of a game (imagine a game that gives you points everytime you purchase a chocolate bar in the vending machines at your workplace) and corrupts the idealist concept of games improving our lives into just another consume strategy. In relationship to this debate, Chain Reaction can be seen as an example of the of gamification that is ethically positive: making theatre look like a game so that it connects to a wider audience, spreading the thrill of making theatre to people that wouldn’t normally participate in such an activity, and also allow regular theatre audiences to act and participate in situations in which they are normally located in the seats in front of the stage only.

3 Theatre (artistic) creativity and game creativity.

If we follow Kaprow’s idea of artistic creativity, we can state that creativity in theatre requires free play and experimentation with objects, people and interactions. It consists on the ways a person or a collective chooses to represent reality through free play and experimentation. For this, there cannot be external rules or limits to a person’s imagination. This creativity steams from visualization of possibilities and posterior selections operations. As Kaprow theorized “The selections individual *Happenings* make are as personal as their influence upon lesser figures are obvious. The expressive character of the selection of image-situations may be assertive or passive, but the choice itself suggests value: what is presented is worthwhile in some way.” (88)

To Kaprow a game is a system that gives value to playing. Playing is not free anymore, but has been co-opted by the “institution” of gaming.

Creativity in games require competitive play and experimentation with objects, people and interactions always with an intention in mind, advancing in the game. The creativity lies on how -what ways, what strategies and tactics - a player chooses *to navigate* through sets of rules and limits created by someone else, the game designer. One could argue that a game is directing players through rules, and not the other way around, leaving players with very short room to decide how they want to engage with the game creatively.

When I started working with Chain Reaction, I shared Kaprow's vision of free play and experimentation, and wanted to create a game in which a player was given the space to experiment and play freely, purposelessly, but paradoxically, I was trying this from the very institution that Kaprow rejected, the game institution, that which co-ops corrupts playing and corrupts experimentation.

4 Designing pervasive performance: The Chain Reaction Case.

Players meet in a specific place in the open, a park or a plaza, or inside a venue theatre house as in Figure 1, where a narrative is delivered by actors who then explain the game rules and hand in maps and cellphones. In the map there are checkpoints marked. Players must go in groups of two and visit all the checkpoints. In each checkpoint there is an actor that delivers a task that players must complete. The tasks are about generating different pieces of artistic material - text, sound, movement and a theatre sculpture - resulting from the interaction with the environment. In the last checkpoint, teams re-group and the task is about devising a short piece of performance out of the materials they have collected. Every group performs its piece to the rest of participants -other players and the actors - and there is a vote to decide on the best show, who wins a symbolic trophy. Every player who performs gets a badge. Once the event is over, players are encouraged to document their experiences on a web for ubiquitous games, SF Zero, through text, pictures and videos.



Figure 1. Theatrical introductions to *Chain Reaction* in Berkeley (2009) and in Trondheim (2011). Photography: A player named 'Spidere' and Lara Sánchez Coterón, respectively.

The event is divided into three parts:

First, on a classical theatre set up, a group of actors stage a situation to an audience in the open. Actors slowly turn into facilitators as they -still on character- explain the rules of the game, deliver maps and artifacts to the audience. *In this transitional phase the tables turn and spectators become players.* Their goal now is to complete tasks, perform actions, win the game. They get physically activated. An indicator is how in every iteration of Chain Reaction we noticed how almost every player started running automatically even though they were told they were not being timed.

Second, the game unfolds. They go across the city in groups, in search for actors who will deliver a task. The tasks are thought as opportunities to engage in artistic creations. Their goal in every task is to generate either a short piece of artistic dance, sound, text, or theatre sculpture as a result of their contact and experience of the environment in that specific moment. Here is an example of one of them:

TASK 1 -MOVEMENT-

Choose an object from nature, a mechanical object, or a person in space. Having the object or person as inspiration, create a short movement piece.

A team of two girls who run frantically 500 meters to get to the first checkpoint had an interesting reaction when given the task. They stayed there, looked around, talked among themselves, and after some minutes, without having moved a bit, said that they were done. They had done the movement piece in their heads! And wanted to keep running to the next checkpoint. When they were told that they hadn't completed the task successfully, they expressed their frustration. To them, the task was too open and abstract, and the change in rhythm made them lose interest in the task and game as a whole.

The tension between game mechanics and theatre form became evident in the first test run. We understood this tension as a gap between two different mind-sets, where two different types of creativity were at work. On the one hand, game creativity required players to understand the rules and act within their limits. They could be creative in the space that the rules left to be explored. Their success would take them one step closer in the path to winning the game.

Theatre creativity challenged players differently by giving them rule-less tasks that required players to stop, look around, and represent the reality players were experiencing in that specific moment. Theatre creativity consisted on the ways players chose to do it.

From the design perspective, Chain Reaction's goal was to introduce moments of free play in the game that were not co-opted by competitiveness, inspired by Kaprow's ideas. In those spaces apart (tasks) players would have the chance to engage in four different artistic disciplines (dance, literature, theatre and music). The result of the engagement could not be measured, there could be no better or worse, or any value in them. The outcome of players' engagement was their actions, and that only was what they had to take with them to the final checkpoint.

However, the gap between game and theatre elements was too large and needed to be solved. The design challenges were first, integrating theatre elements into game structure to make a more dynamic game while retaining the spaces for artistic development and second, balance the combination between game and theatre elements. These were our decisions:

First, the artistic tasks needed to be less abstract and give players the "illusion" of being more measurable, so that they would reinforce the competitiveness of the game. In adding a set of rules to each artistic task, they became little games about art. This way, tasks became more meaningful for players since they suited the frame of the game as a whole. However, we felt that free play was being compromised in favor of the game. The movement task was reworked into the following:

TASK 1 -MOVEMENT-

Choose an object from nature, a mechanical object, or a person in space. Having the object or person as inspiration, *make a 10 sec. movement piece in which there is a jump, a spin and a fall.*

-All the group members must participate

-The group members may not perform the same actions simultaneously

-There must be interaction between the group members

Second, we introduced social improvisational tasks in which players had to interact with bystanders and get different materials from them. Our initial intention was that players had to generate the artistic materials themselves in interaction with the environment or inspired by it. That is, the materials had to originate in the players. However, we decided to relieve players from using themselves as source material for completing the tasks because it did not fit their expectations, they seemed to crave game and rules, not abstract or open ended tasks. This design decision became later very popular in the game. In most cases players played "make believe" with strangers. That is, they created characters and performed for strangers to get the task done. Spidere's team, for instance, pretended to be employees of a National Radio Channel making a survey on people's knowledge on the channel's state of affairs.

Third, the order for visiting the tasks should start with social improv tasks and alternate with more theatre-oriented tasks. Players' gaming expectations were this way fulfilled already in the beginning, which made it probable that they will complete the more theatre-oriented tasks in the game due to their involvement. For instance, here is a social improv. tasks (in either checkpoint 1 or 3) followed by a theatre oriented task (in either checkpoint 2 or 4)

TASK 3 – WORDS -

Find a stranger on the street and engage him/her in conversation, and get him/her to say the word “corporation” in a sentence. Note it down. You will use later in the game.

It must be someone who is not in the game

You may not tell the person that you are playing a game

You may not yourself say the word corporation

You may not tell the person what to say, or write it down for them or anything like that

You may lie, make up stuff, and improvise in any way you get them to say the word.

The three design decisions explained above aimed at framing theatre artistic tasks as little games. By framing them with rules and by stating a clear intention on how the finished product should be (this and this long, it should contain this and that) the design is liberating the player from personal responsibility in her approach to dancing, making a piece of literature, impersonating somebody and singing a song.

In this sense, the artistic creativity as understood in Kaprow was lost in the tasks– and postponed to the very last checkpoint.

The third part of the event is the final task. In order of arrival the teams of two get regrouped with another team, so that each new team has four members. The task now is that of assembling/ cross-hatching the materials generated through the game to build a theatre piece and perform it as well. This is an artistic process in itself where the art lies on how players decide to communicate a specific message, or a state of mind or atmosphere, that steams from within their personas and experiences (in the game and outside the game). This artistic process is called “devising” and it is the chore concept in Devised Theatre;³

Devising is a process of making theatre that enables a group of performers to be physically and practically creative in the sharing and shaping of an original product that directly emanates from assembling, editing, and re-shaping individual's contradictory experiences of the world (Oddey, 1994: 3)

Groups have now two sets of every piece of material, and need to show each other what they have collected. The artistry is first, selecting the materials and the different ways in which they can be put together and second, the act of performing to an audience.

Here is the last transitional phase in which players become actors (in a play), in this case for each other, and later for an audience in a classical theatre set-up. How does the game facilitate this change to take place naturally?

4 Turning players into (theatre) actors

After approximately two hours in the game, players get to the final checkpoint, which is different and more complex than the previous ones. They are being asked to devise a theatre piece together with a new team, perform it in a classical theatre setting to an audience (other players, actors and bystanders), and be publicly evaluated for it.

³ Devised theatre is determined and defined by a group of people who set up an initial framework or structure to explore and experiment with ideas, images, concepts themes, or specific stimuli that might include music, text, objects paintings, or movement. A devised theatrical performance originates with the group while making the performance, rather than starting with starting from a play text that someone else has written to be interpreted (Oddey, 1994: 1)

The design of this checkpoint carefully emphasizes its status as game. Players are not asked to make a theatre piece, they are asked to make a TV-commercial (Berkeley version) or a one-minute broadcast into space (Trondheim version). They are not given total freedom to represent what they want and are given a set of rules that determine superficial aspects – of what their goal is such as how long the piece should be and how many of all the materials collected through the game should be used in the piece. This way, players work under the illusion they are being measured even though the rules they are given are superficial and general, not prescriptive.

Even though players are unconsciously entering the realm of theatre, it is the game's magic circle that is at work, not theatre's. Being within the frame of a game -the magic circle- encourages players to display transgressive behavior, dare to do things they would have never done in a everyday-life situation, such as to overcome embarrassment, fear of ridicule and all kind of insecurities that come up the moment we are asked to be creative. Jane E. McGonigal criticizes this idea of player liberation and claims that players enter a playful mode under the illusion that they have become actors playing their part in a vision dictated by the game designer (2006: 430). In this sense, they are not free in their actions, they are fulfilling an idea of what the game designer wants them to do. The imaginary game designer, the game context and rules liberate the players, not from society's norms, but from personal responsibility, which allows players to perform. In other words, the game designer takes responsibility for what is being done, whatever that might be.

A similar line of thought is presented by Cindy Poremba (2007) who analyses "Forbidden Games" as games that use their status of "only a game" as a strategic gesture. In this view, the redefined theatre conventions of the magic circle provide the players with an alibi for displaying creativity in public, as they can always dismiss the event as "just a game". This idea steams from Gregory Bateson's theory of play in which there is constant meta-communication between players stating that "this is play" and nothing else. (Bateson, 2007)

All in all, there are moments when players become aware of how the game is turning from a very experimental experience - adventurously going across the city, using cellphones and interacting with strangers -into a very classical setting of making theatre, with an audience evaluating the best performances.⁴

In this modern version of Greek tragedy competitions, the realization of the seriousness of "making theater" causes different reactions. Some players are thrilled to add an artistic component to the game, such as player "Spidere", who stated after the game how he was looking for games that explored artistic creativity; "games that give you something more". Other players are skeptical to "having to do theatre" and question the purpose of the game. "This is a game, not theatre", a player claimed in the Berkeley orchestration.

But a mix of being too far into the game, having invested a lot, and being so close to the end makes skeptical players continue (in the Berkeley version 2 out of 15 players gave up, in Trondheim none of 39). Most importantly, if they quit, they (and their team) will lose the opportunity to win. Competitiveness is hereby used as a way to lure players into acting, something that many would not dare to do in any other context.

5 Emergent gameplay

Jane E. McGonigal claims in her relevant work on ubiquitous gaming that pervasive games make players more aware of the ludic possibilities of the world around them, testing carefully sites, object and interactions (2006). In this sense, it could be said that pervasive theatre makes people aware of the possibilities for theatre in the world around them. Players are asked to put on the "theatre glasses" and see how they can transform everyday-life into theatre. This view of life as theatre was already analyzed by Nicolas Evreinov, who argued for the theatricalization of everyday-life by actively "seeing" differently. Everyone has "theatrical instinct" that can be activated at one's will. (Evreinov quoted in Tronstad, 2002: 2)

⁴ This practice can be traced back to the Golden Age of Athens and the constitution of tragedy competitions under the Dionysian Festivals about 530 BC. Each playwright would submit three tragedies and a satyr and by the end of the festival, which lasted five days, a winner was declared. Thespis was the first recorded winner in the first Dionysian festival in 534 BC. A lottery decided who, among prominent citizens, would judge the tragedies. However, the audience's opinions and responses on the performances counted greatly and influenced the decision of the judges.

Chain Reaction works as an activator of the theatrical instinct. After having played the game participants look at the world around differently, imagining the possible affordances of places, objects and interactions. Passing by the places they went through in the game reinforces this playful attitude; seeing in the street the object they collected for the “task in motion” (which was used as “prop” in the performance), or looking at a map of the city evokes the digital drawing task in which went through the city tracking their walking and making a drawing out of it, annotating space digitally.

Inversely, the places, objects and interactions that inspire the materials to be collected throughout the city will be taken into the theatre piece. The everyday pervades the pieces, literally. An example is the theatre sculpture task, which is about choosing a person in space and impersonate it. In the Berkeley orchestration, most players chose to impersonate hippies, joggers and beggars, which brings into the pieces an interesting cultural dimension since it reflects the reality of the city of Berkeley, house of the hippy movement since the 1960s, famous for its concern with health, and full of marginal people who prove the inequalities of the American system.

6 Conclusion

I have presented the challenges of combining game design with theatre through the implementation of a hybrid form of pervasive game and interactive theatre, Chain Reaction. I have looked at how interactive theatre and pervasive games influence each other, what is game design as opposed to directing in theatre and what are the different creativities required in games and theatre. I argue that there exists a difference between “theatre creativity”, which is based on free play and experimentation with the everyday, and “game creativity”, which is based on navigating through game rules and managing competitiveness. My argument is that two features of games -rules and accountability of the outcomes- diminish the possibilities for artistic expression – since games give value to something that which should not have a value (free play, and consequently, art), while simultaneously creating a situation that contains the conditions of possibilities for the development of artistic creativity. The magic circle of the game liberates players who dare to try to be artistically creative either because they are lured by the game’s competitiveness or because they use the game as an alibi to engage in artistic activities. For those players who did not enjoy the experience of making theatre, there is always the possibility of dismissing the event as “only a game”.

The porosity of the magic circle allows players to manipulate their engagement in the game and enjoy the thrilling experience of making theatre. In this sense, each players “performance can be seen as a form of agency, a way of bringing culture and the person in play” (Denzin, 2003: 9).

The effects of participating in such an event act as an activator of the “theatrical instinct” that every individual possesses, allowing people to engage playfully with the world around. But most importantly, pervasive theatre makes participants live an aesthetic experience. The importance of this act doesn’t lie in transforming life into an art form- theatre in this case- but in how the aesthetic experience transforms their ways of living.

Ultimately, pervasive theatre tells us that pervasive games can be used to promote participatory and alternative theatre forms reaching out to new audiences and new mediums.

References

- BATESON, G. 2007. A Theory of Play and Fantasy. In H. Bial (Ed.), *The Performance studies reader* (141-151). London: Routledge.
- BOAL, A. 2008. *Theatre of the Oppressed*. London: Pluto.
- DENZIN, N. K. 2003. *Performance Ethnography: Critical Pedagogy and the Politics of Culture*. Thousand Oaks, Calif.: Sage.
- DETERDING, S., DIXON, D., KHALED, R., NACKE, L. From Game Design Elements to Gamefulness: Defining Gamification. *ACM Digital Library*, 9-15
- KAPROW, A. (2003). *Essays on the Blurring of Art and Life*. (J. Kelley, Ed.). Berkeley, Calif.: University of California Press.
- JOHNSTONE, K (1979). *Impro: Improvisation and the Theatre*. London : Faber
- MAGERKURT, C., CHEOK, A. D., MANDRYK, R. L., & NILSEN, T. (2005). Pervasive games: bringing computer entertainment back to the real world. *Computer Entertainment*, 3(3), 4-4.
- McGONIGAL, J. E. (2006). This Might be a Game: Ubiquitous Play and Performance at the Turn of the Twenty-First Century. Thesis. University of California at Berkeley.

- McGONIGAL, J. E. (2011). *Reality is Broken: Why Games Make Us Better and How They Can Change the World*. London : Jonathan Cape
- MONTOLA, M., STERNOS, J., & WAERN, A. (Eds.). (2009). *Pervasive games: theory and design*. Burlington, Mass.: Morgan Kaufmann Publishers.
- ODDEY, A. (1994). *Devising theatre: a practical and theoretical handbook*. London: Routledge.
- ODDEY, A., & White, C. (Eds.). (2009). *Modes of spectating*. Bristol: Intellect.
- PORE MBA, C. 2007. Critical Potential on the Brink of the Magic Circle. *DiGRA Digital Library*.
- SALEN, K., & ZIMMERMAN, E. (2004). *Rules of Play: Game Design Fundamentals*. Cambridge, Mass.: MIT Press.
- TRONSTAD, R. (2002). Could the World become a Stage? Theatricality and Metaphorical Structures. *SubStance*, 31(2), 216-224.