SYNCHRONIZING THE SELF:
Online Gaming, Avatars and Identity

Wei Gui

© Wei Gui, 2015

Wei Gui, ‘Synchronizing the Self: Online Gaming, Avatars and Identity.’ Proefschrift Universiteit Utrecht, 2015.

Synchronizing the Self:

online gaming, avatars and identity

Het Zelf synchronisen:
Online gaming, avatars en identiteit

(met een samenvatting in het Nederlands)

Proefschrift

ter verkrijging van de graad van doctor aan de Universiteit Utrecht op gezag van de rector magnificus, prof.dr. G.J. van der Zwaan, ingevolge het besluit van het college voor promoties in het openbaar te verdedigen op maandag 25 januari 2016 des ochtends te 10.30 uur

door

Wei Gui

geboren op 19 oktober 1977
te Shanggao, Jiangxi, Volksrepubliek China

Promotor: Prof. dr. R. Braidotti

This thesis was accomplished with financial support from China Scholarship Council

Table of Contents

Acknowledgements ····· **i**

Introduction ····· **1**

Chapter 1

The Avatar: A Simulacrum of Human Life ····· **13**

1.0 Introduction ····· 13

1.1 What is An Avatar? A high Simulacrum of Human Life ····· 16

1.1.1Cybernetics vs. Imagination ····· 18

1.1.2The "Magic Circle" and Negotiation ····· 25

1.1.3Feedback Loop: the Basis of the Shift

from "Interpretation" to "Performance" ····· 32

1.2 The Consequences Brought About by the Emergence of the Avatar ····· 35

1.2.1From "Boundary-crossing" to "Boundary-blurring" ····· 36

1.2.2The Network Society ····· 38

1.2.3The Medium Has Become the Body? ····· 41

Chapter 2

RE…ING: The Epistemological Recovery of Embodiment Theory and its Influence on Identification in An Integrated World ····· **47**

2.0 Introduction ····· 47

2.1 Recovery of the Embodiment Principle ····· 49

2.1.1 The Return of the Body:

An Embodied Interpretation of the Avatar Metaphor ····· 50

2.1.2 Research Approach Clarification:

Distinguishing Embodiment from Materialism/Materiality ····· 55

2.1.3 From a Daoist Perspective to Understand

the Relationship Between Embodiment and Disembodiment ·····57
2.2 Rethinking the "Real" ·····66
2.2.1 The "Magic Circle" and the Distinction between Real/Non-real ·67
2.2.2 Imaginary/Imagination and the Real ····· 73
2.3 Embodied Imagination and Identity ····· 76
2.3.1 Embodied Imagination: the Power that Integrates Two Worlds · 77
2.3.2 A "Mirror Stage" in Cyberspace ····· 83
2.3.3 A shift From "Our-ness" to "Me-ness" ····· 85

Chapter 3
Three Bodies: the Invisibly Corporeal Body, the Visibly Imaged Body and the Functioning "Gaming Body" ·····89
3.0 Introduction ·····89
3.1 From the Eye, Skin to the Simulated Body:
A Gradual Process of the Embodiment Principle ·····92
3.1.1 Eye and Skin, Vision and Haptic ·····93
3.1.2 Is the Avatar A Body or An Image? ····· 101
3.1.3 From "Film's Body" to "Gaming Body" ····· 103
3.2 Three Synchronized Bodies ····· 105
3.2.1 What Are These Three Bodies in Game Playing? ····· 107
3.2.2 Synchronizing the Body Concept Into An Assemblage ····· 112
3.2.3 From the External Gaze to Vision from "Within" ····· 118
3.3 Anticipating the Landscape of Concepts' Images:
the Body, Embodiment and Synchronicity ····· 121
3.3.1 Defining "Within" ····· 124
3.3.2 As a Limitation:
unsimulated, unsynchronized and unexperienced death ····· 126
3.3.3 The Frame Constituted by the Body and Embodiment
in the Condition of Synchronicity ····· 129

Chapter 4

Rethinking the Concepts of Sex and Gender

in the Synchronized Environment ····· 135

4.0 Introduction ····· 135

4.1 Reviewing sex and gender in relation to the body ····· 137

4.1.1 Three main views on the concepts of sex and gender ····· 140

4.1.2 The corporeal existing form of the body:

From "The One" to "one of" ····· 150

4.2 Feminist Phenomenology as an approach ····· 153

4.2.1 Is "the lived body" enough? ····· 155

4.2.2 Is the concept of gender still useful? ····· 158

4.3 The new notions and the relationship

between sex and gender in cyberspace ····· 161

4.3.1 Disorientation and freedom:

the choosability and multiplicity of gender in cyberspace ····· 162

4.3.2 Is the subject embodied or discursive? ····· 165

4.3.3 Three synchronized bodies vs. sex and gender ····· 168

4.3.3.1 The striking back of the body

and the "three bodies" theory ····· 168

4.3.3.2 Redefining the concept of sex ····· 170

4.3.3.3 Multiple gendered body and gender roles ····· 172

Conclusion ····· 177

Bibliography ····· 189

Summary ····· 199

Samenvatting ····· 201

Acknowledgements

Four years ago, thanks to financial support from China Scholarship Council for which I am deeply grateful, I started my PhD research at Utrecht University, my academic version of Journey to the West. This journey from Xiamen in China to Utrecht in the Netherlands has been, without any martial fights against evils or spirits, but filled with struggles of loneliness and homesickness. I have not had to overcome any of the eighty-one tribulations set by the Buddha, but have continually faced conflicts caused by academic traditional and cultural differences.

Fortunately, this whole journey has also being illustrated and guided by a wise woman, my PhD supervisor Professor Rosi Braidotti, to whom I am immensely grateful. Thank you so much for your insightful supervision through which you taught me to be practical and concrete, and for your generosity, affirmativeness, as well as your unconditional trust and support along the journey. You have set a great example for me, not only be being an intellectual scholar with brilliant thoughts, but also as a decent human being with noble qualities, and I will be indebted to you for the rest of my life.

The Institute for Cultural Inquiry (ICON) at Utrecht University has provided me with plentiful educational support, for which I am deeply thankful. I am also indebted to the Center for the Humanities (CFH), the national Netherlands Research School of Gender Studies (NOG) and the Graduate Gender Programme (GGeP). Thanks for providing those inspirational lectures, conferences, intensive courses, seminars, and discussions. I also wish to thank Rosemarie Buikema and Berteke Waaldijk for organizing and chairing the Reading/ Writing seminar, and for all of guidance and comments that both of you have given to me. Many thanks also to the staff of ICON and CFH, especially Cornelie Vermaas, Natasja Zegwaard, Goda Klumbyte, Toa Maes, Jose van Aelst, Rianne Giethoorn and Trude Oorschot. I am grateful for the generous and continuous help from all of you. Moreover, I would like to thank all the people who gave me their inspirational feedback on presentations I made during Intergender courses (2011), LOVA (The Netherlands Association for Gender Studies and Feminist Anthropology) International Conference (2014), and Summer School course “Identity and Inter-disciplinarity in Games and Play Research” (2014).

Over these past four years, I have met and worked with many fellow PhD researchers in Utrecht. I wish to thank all of them, especially those who have become reliable friends and sources of unfailing support. Thank you to Qijun Han. I was so lucky to have a wonderful friend like you who warmed my life in

this beautiful but cold city. My thoughts also go to Phoebe Mbasalaki. Thank you for proofreading one of the most difficult chapters of this dissertation so skillfully, and for the Flamenco dance classes and performance and all of those enjoyable beers and dinners that we shared together. I am very grateful to Pieter Kalis for being a kind and generous housemate, for the proofreading and translating work that you have done for me, and specifically for the NASA mug you brought back from Houston. Furthermore, thanks to Shu-Yi Huang for your creative idea of a "monthly feast", which has been proven to be a good way to relieve stress.

Thank you to Willemien Sanders, Koen Leurs and Wouter Oomen for helping me with the Dutch translation. I am also very grateful to Sarah Dellmann for sharing experiences and patiently giving warm suggestions. To Berber Hagedoorn, Eliane Fankhauser, Li-an Ko and Liliana Melgar, thanks for your company in the final year of my research, for the enjoyment of coffee time and those Chinese dinner nights. I also wish to thank the members of the PhD reading/writing seminar: Arla Gruda, Aggeliki Sifaki, Desi Prianti, Gisela Carrasco, Heather Hermant and Hong Wu. Thank you for your inspirational feedback and continuous support at the various stages of this journey. To Wenjun Yu, Ruowen Zhou, Lijie Zheng, Fei Teng and Liping Dai, for all of those happy gathering times we had together – thanks all.

I am indebted to the help and support of my teachers, friends and family in my homeland. Thank you to Professor Danya Lin for supporting me at the beginning of application for the scholarship, and for the memorable month when you visited Utrecht. A thought also goes to Yuhuan She, my dear friend. Thank you for all the heartwarming talks, the wisdom of life you shared, and the mutual supportive friendship and sisterhood between us. Thank you to Shiqiong Wang for your kind hospitality when I traveled back to Xiamen two years ago.

Last but not least, I wish to thank my parents, Jun and Lihua, for the most beautiful wish you have for me: "just fly as high as you can!"

Introduction

This research stems from my personal experience of playing an online game named *Fantasy Westward Journey*, which prompted me to think over some issues about gender and identity. In this Chinese MMORPG (Massive Multiplayer Online Role-Playing Game), playing as a female avatar Bone Elf, sometimes, when I won a male avatar in a game competition or a PK (Player Killing), the loser would insult me by calling me "Shemale", because usually, men did not allow themselves to be beaten by a woman. I made friends with another female avatar Foxy Girl who finally told me that "she" was a "he" in the real world. When I refused to "marry" to a male avatar in the game, I was laughed at, "what is the big deal? It is not real, just a game!" I also knew a player who was a high school boy in the real life, but was one of the top 10 fighting masters and a respected leader of the biggest faction in the game zone where my avatar inhabited. By playing this game, I had been used to talk with Foxy Girl in the same way I talked with a man in my daily life, without feeling any contrast between the female appearance and the male gender. I had learnt to ignore, at least not to care about, the sex, gender, and age that an avatar appeared in online games, as well as in other online social networks or activities. Given my academic background in cultural and feminist theory, I started to think about how I should consider and comprehend what I felt and learned from my experience of online game playing. Does it entail a sort of "gender erasure", or rather a kind of "gender multiplicity", or a negotiable "gender choosability"? What is the real and reality? My starting assumption is that the gender performances described above cannot be constrained within online environments, rather, they will influence one player's daily life and one's identity in various ways.

This dissertation is motivated by a number of issues emerging from my lived experience, which can be initially described as the conflict between the virtual and the real, the physical body and the digital body. This also entails the conflict with the gender norms operative in the real world and the gender performances taking place in cyberspace. As my research grew deeper, I realized that my initial concerns converge on the issue of identity and the means and processes of identification. In the context of the increasing influence of the Internet, in particular of the online gaming environments, I have observed first of all that, all these conflicts as well as the potential possibilities converge on the avatar. Questions, such as "Who is responsible for what has been done in cyberspace, for example, cybercrimes?" or "on the internet, does anyone know if you are a man or woman?" are inevitably raised when cyberspace and online activities are discussed. Paying attention to the context of these questions, I find that they can be viewed as a signal of the ongoing

social transformation, which is triggered by the speedy development of information technology, specifically information technology. Indeed, these questions were not be asked before the internet became so popular, and even ubiquitous. I believe that it reveals part of the necessity of this research.

The issue of how to assess what is real and virtual has become so vital that it has deeply influenced our daily life and our traditional distinction between the real and the virtual, not to mention the vast number of online games subscribers. For instance, the statistic shows that, in the last quarter of 2012, *World of Warcraft*, one of the most popular MMORPGs in the world, had 9.6 million subscribers. Both the digital game in daily life and the issue of the real and the virtual in academic research, thus, need to be thought over.

The relevance of my research lies in attempting to provide an answer to this question, which is concerned with identity and identification. I argue that by providing the means to establish a "second self", the other identity on the internet, the emergence of the avatar as well as the speedy development of information technology change the way and the process of identification. One of the most fundamental and controversial elements, which simultaneously triggers and complicates the theoretical exploration, is how to deal with the opposition between the real and the virtual. As I will discuss in the following chapters, the issue of identity and identification has entered a critical stage where both of them are confronting a more complicated situation, a world in which the traditional physical world and the digitalized virtual world are integrated, or in Mark Hansen's words, a mixed reality (2006).

Consequently, this dissertation is set in the background of an "integrated world" where the physical world and cyberspace are seamlessly fused; it aims to figure out what changes in the categories of identification are processing and updating, as well as what influences these changes bring to our lives. Specifically, my argument focuses on the changes occurring within the categories, such as "the body", "sex" and "gender". As Sherry Turkle points out, "there is no simple sense in which computers are causing a shift in notions of identity. It is, rather, that today's life on the screen dramatizes and concretizes a range of cultural trends that encourage us to think of identity in terms of multiplicity and flexibility" (Turkle, 1999, p.643) .

I would like to stress from the start that this is a cultural and theoretical dissertation. My approach to the research on the avatar is from cultural and gender studies, and not from the analysis of software, algorithm or neural sciences. Even though several computer games and media theory terms are referred to in the following chapters, the focus of my argument and analysis is on their influence or significance in terms of culture and gender. My work is interdisciplinary, but will be framed within these two discursive domains.

Research focus

To clarify the research focus of this dissertation, I would like to give a short explanation of the avatar which is also called the virtual ID in cyberspace. The word "avatar" has been used to designate the virtual representative of a user/ player in four domains: a text-based multiple user domain (MUD); an online social network like Facebook; a non-gaming 3D immersive environment; or a massive multiplayer online role playing game (MMORPG) like *The World of Warcraft*. My research focuses on the last domain, the MMORPG, because, in general, the situation in MMORPG is rich enough to embrace the first and the second domains. As to the third domain, Mark Hansen has offered a very insightful idea "the body in code", through which he upholds the embodiment theory from a phenomenological standpoint. In my view, the domain of MMORPG, however, is not only applicable to the embodiment theory, but also enables other aspects to study on, in particular the aspects of identity and identification.

My research interest starts with a series of questions. How to define the avatar? How to re-define "the real" and "the virtual" as well as the distinction between them, in the digitally mediated environments? How to understand that, in online game, one player can arbitrarily create multiple avatars with different genders? What does the above mean and does it change the traditional categories that one used to identify the self, such as the body, sex and gender?

I hope that my answer to these questions will theoretically contribute to the issue of identity/identification in the information era, specifically, in the integrated world where the virtual and the real are seamlessly fused together. Based on the questions listed above, my research should therefore be seen as an attempt to build the connection between the digital technology and the humanities in a feminist framework.

Specifically, my research focus on the avatar rests on two basic observations. The first one is that the body can be represented and manipulated on the screen, due to the development of information technology in the late 20th century. In my view, this triggers my thought of viewing the flesh, the physical aspect as one existing form of the body. In this vein, the avatar on the screen can be viewed as a body existing in the digital form and still related to the physical body, instead of being a mere digital "image".

The second observation is that in online life, people can create their avatars and set up those avatars" gender, personae, and action arbitrarily, and all those characters are not necessarily the same as the player in the physical world. This shift of perspective suggests that some major categories we used to identify a person and, to identify ourselves, such as the body, sex, and gender, have become optional and negotiable.

These two observations both lead to the very important and controversial issue of identity/identification. I then propose "embodiment" and "synchronicity" as two analytical key terms, which intertwiningly constitute the basic perspectives for my research. This dissertation can be viewed as a theoretical exploration which employs the avatar as a breakthrough to think about the identification in an integrated world. It takes the perspective of embodiment and looks at the avatar through the prism of media synchronicity, in order to scrutinize the changes in the categories of the body, sex, and gender.

Feminist theory and its interdisciplinarity

This dissertation is theoretical and text-based, and not empirical. It should be viewed as a research on cultural and gender studies, even though its focus is not on the social oppression of women in a hierarchical society which is caused by race, gender or class. I understand feminist theory as well as gender studies as a research perspective that can be applied to many possible objects of research, rather than a specific academic discipline or research domain. Feminist theory is a perspective which, in terms of research practice, inherently embraces the dimensions of gender and sexual difference. In terms of methodology, however, it allows for emphasis on difference and multiplicity, so as to rethink, deterritorialize and reterritorialize the way in which knowledge has been formed in multiple areas of identity and related issues.

Put another way, I understand feminist theory as an academic perspective that is inherently interdisciplinary, and foregrounds not only the immanently embodied nature of human being, but also notions of multiplicity and difference. Feminist theories absorb, transform and dialogue with multiple disciplines. In this sense, feminist theory is capable of being interdisciplinary not only in content, but also in terms of methodology. This "means the crossing of disciplinary boundaries without concern for the vertical distinctions around which they have been organized" (Braidotti 1993). For instance, a fundamental figure of feminist theory, such as sexual difference aims at breaking away from the social and cultural patterns of identity set for both men and women, through an interdisciplinary methodology.

Following the interdisciplinary perspective, I refer to new media studies and games studies, as well as gender studies in terms of research domains, and address phenomenology as well as feminist philosophy in terms of knowledge production. More specifically, this interdisciplinary standpoint situates my research at an intersection between technology intervention and gender performance, as well as between the lived body experience and the embodied subject.

Starting with the comparison between the avatar and another traditional simulacrum, the character in a novel, in the light of respectively game studies

theory and literary theory, three remarkable characteristics of the avatar emerge. I propose the importance of the embodiment perspective, the synchronicity of the online game playing, and the potential of the imagination that shifts from being a vehicle of artistic creation to become one of identification. The shift in the role and structure of the imagination confirms the premise of this dissertation, namely that the avatar is engaged in the process of identification in the integrated world. Then, appealing to feminist philosophies in the phenomenological tradition, I tease out how these new characteristics of the avatar illuminate the epistemological turn that is for me the shift from materiality/materialism to embodiment. Whereas most scholarship stresses the intrinsically virtual nature of the avatar which is usually considered as immaterial, (with mainframe computers as the material), I claim that the research focus should be shifted to embodiment, that is to say the interface between the player and the machine or a computer, rather than sticking to binary distinctions between materiality or materialism and immateriality. This does not mean materiality is not a useful theory and concept, as the materiality of the body is still addressed in my argument. What I am rather trying to highlight is that, in the integrated world, materiality or materialism is not the only concept or solution, in particular, to tackle the issues related to the real and the virtual. We need a more complex and a more dynamic vision of how allegedly opposition terms actually interact.

Embodiment may resolve the opposition between the real and the virtual, however, it evokes yet another binary conflict, that is the relationship between embodiment and disembodiment. To deal with that, I refer to the Daoist theory, in particular the Yin-Yang assemblage, so as to re-scrutinize the issues of boundaries and the relationship between the two opposites. The Yin-Yang emblem, illustrates how two opposites are inseparable and curving into each other. In order for the harmony, balance and steady function, however, neither of them can be removed out of the emblem. Appealing to the Yin-Yang emblem as an analogue, I understand embodiment and disembodiment as two interdependent and interchangeable dynamics, which continually insist and stress the existence of conflict and opposition, but the boundary between them is always transforming and reshaping in an ultimate quest for harmony.

The next step of my argument is to re-appraise the process of identification in online activities which are embodied in the avatar. As my initial research interests were evoked by my thinking about the issues related to gender performance in online games, I chose to focus on the discussion on the categories of the body, sex and gender. Accordingly, I integrate feminist theory, phenomenology, new media theory and game theory into my theoretical framework. New media studies as well as game studies, offer important concepts and insights into the issues related to the boundaries between the real and the virtual, as well as the relationship between technical disembodiment and the embodied experience (Turkle, 1999, 2005; Hansen, 2006; Raessens, 2006; Kingsepp, 2007; Copier, 2009). Feminist theories shed a light on how

sexual difference is illustrated through the gender performance of the avatar as well as how the embodiment theory can be applied to the role of the body in digitalized environment (Haraway, 1991; Braidotti, 2002, 2013; Hayles, 1999, 2010). Integrating the above theories, I demonstrate how the multi-dimensioned oppositions, for instance the ones between the real and the virtual, the body and the machine, the embodiment and technology, converge on the avatar, and are rethought and updated with the emergence of the avatar.

Similarly, in terms of theoretical knowledge, reflecting on Butler's theory of gender performativity and discourse-oriented feminist theory, I end up embracing phenomenology, because it appeals for the return to the bodily experience (Sobchack, 1992; Young, 2005; Wegenstein, 2006). Feminist philosophy underpins the embodied nature of the subject and it clarifies the relationship between gender and subjectivity (Kruks, 1992; Braidotti, 1993, 2011). All these philosophical schools moreover reach a consensus on the crucial importance of the body.

This interdisciplinary network of theories locates and constructs the theoretical structure of this dissertation.

Methodology

Five hypotheses frame the theoretical core of this dissertation. Due to the interdisciplinarity of this research, these five hypotheses are not independent of, but interdependent with each other. The first hypothesis can be considered as the fundamental of the research, while the second and the third one specify the context for it, by raising the concepts of "integrated world" and "synchronicity". The last two hypotheses demonstrate the research findings, by applying the framework, which is constituted by the former three hypotheses, to a theoretical exploration on the categories of the body, sex and gender.

The first hypothesis is that, *by means of the imagination, the experience of playing an avatar is getting involved in the process of identification.* As synonyms of "imagination", the terms of the "imaginary" (in vein with its use in Lacanian psychoanalysis theory of "mirror stage") and the idea of "fantasy" (video games are called "shared fantasies" by some scholars), strengthens the connection between the classical "imagination", the contemporary practice of online game playing and the process of identity/identification. Additionally, as Chiara Bottici has pointed out, the power of the imagination are such as to establish a relationship between politics and imagination, politically agency and the imagery dimension. In other words, the idea of the imagination is capable of making a contribution to the process of social identification, especially in cases where the avatar enjoys the freedom to negotiate its gender option and performance.

My second hypothesis is that, *with the support of synchronicity technology, and through the avatar, the physical world and cyberspace are seamlessly combined into what I would like to call "the integrated world"*. How to distinguish and define the real/reality and the virtual is one of the inevitable questions when cyberspace and online games are discussed. Mark Hansen resolves this question by scrutinizing the term of "virtual reality" (VR), which is the third domain of the avatar application, and claiming that "because experience as such is "analog processed", there can be no difference in kind demarcating virtual reality from the rest of experience", therefore, "all reality is mixed reality" (Hansen 2006: 6). This argument is inspirational as it stresses that virtual reality is one kind of "experience". It does not fully cover the case of the avatar, however, because the online network which involves multiple and numerous players through their avatars makes a significant difference. Moreover, this online network can be extended to offline life, for example affective relationships, or fan group meetings, thus, creating multiple and multi-directional ramifications. From the perspective of network society, this capability enables cyberspace to integrate with the physical world. Moreover, the idea of the "integration" which is intrinsically open to multiple possibilities, also leaves room for further processes of identification and re-identification.

My third hypothesis is that, *synchronicity as a kind of technology changes the way the real and the virtual are defined*. The idea of synchronicity, adapted from computer science, used here as a theoretical perspective as well as a specific information technology. It is defined as being, inherently capable of embracing multiple spaces that share the same timeline. As a technology, among five characteristics[①] of media synchronicity, the immediacy of feedback is crucial to the online game playing, otherwise the MMORPGs would be impossible. On the other hand, two fundamental communication processes, "conveyance and convergence" of the information which compose all synchronous activities (Dennis & Valacich: 1999) contain the potential for the flourishing of online networking. As a theoretical perspective, synchronicity refers to the implications of the fact that technology synchronizes multiple layers and aspects of the Self by vividly displaying each of them at the same time. For instance, at the individual level, one player can play multiple avatars with different genders and personae at the same time, while at network level, massive multiple avatars are interacting and cooperating with each other in real time. This consequence collapses the traditional hierarchy between binary oppositions, such as those between the body and the mind, between the real and the virtual as well as the feminine and the masculine etc.

Fourthly, I argue that *the emergence of the avatar proposes the existing digital form of the body and then changes the way in which the body is defined*. If the avatar is understood as a digital body, this existing digital form in turn stresses

[①] Following A. R. Dennis & J. S. Valacich's definition, five media capabilities that make media synchronicity realized are: immediacy of feedback, symbol variety, parallelism, reprocessability and rehearsability (Dennis & Valacich 1999: 5).

that the body had been existing in and only in the physical way beforehand. It reveals that the discourse-oriented theory also was based on the materiality of the body, although this fact was ignored. Accordingly, this orientation needs to be adjusted. Put another way, the physical nature of the body has become "one of" existing forms of the body instead of the "only one". This change of the status of the materiality of the body, endorses that new concept needs to be introduced, and thus a shift on theoretical focus is necessary. In this vein, the updated definition of the body as well as the updated way in which the body is defined remodels the structure of theory building. Viewing the avatar as a body instead of an image on the screen through the prism of reflexivity, confirms that the definition of the body goes beyond the criterion of material/nonmaterial, and then opens the door for larger potential of multiplicity.

Fifthly, I posit that *the fact that a player can create multiple avatars with different genders arbitrarily changes the notion of gender as well as the dichotomy between sex and gender*. One significant characteristic of the avatar is the choosability of gender which allows the consequent gender performance and gender switchover to be activated both between multiple players and even within one single player. If the biological aspect of sex remains in the physical world, then what is acting and performing in cyberspace is gender. As I shall demonstrate, the dichotomy between sex and gender is undermined, while the distinction between the feminine and masculine still exists. The hierarchy between them, however, is broken, and therefore the role of gender in the process of identification is shifted significantly.

Aim of the research

As these five hypotheses indicate, this dissertation, through the prism of synchronicity, focuses on the changes undergone by the categories of the body, sex, and gender, in order to explore how these changes influence the process of identification. Synchronicity offers a new perspective to rethink these categories in relation to the issue of identity and identification. By synchronizing multiple aspects of an entity and presenting them at the same time, especially synchronizing the real and the virtual as well as the physical world and cyberspace, binaries oppositions are erased, and then multiplicity and difference come to the centre stage.

The main reasons why I chose to focus on these three categories – body, sex and gender – are, firstly, the very unique feature of gender, that is its variability and choosability, and, secondly, the rich potential of the fact that the physical body is blocked out of cyberspace, but keeps interacting with it. Seen in this light, the tension caused by the alleged exclusion of the physical body and the choosable nature of gender in cyberspace opens a door towards the theoretical shift from materiality/materialism to embodiment. The complexity of this

tension sets a complicated and multiple-layered structure for my argument, however, it also confirms the relevance of the research I am pursuing.

Theoretically, the dissertation is built on three core concepts which are interrelated to each other and act as the red threads throughout the following argument. The first concept is the idea of "the embodied experience" through which one player, via the avatar, integrates the virtual cyberspace and the physically daily world into an entity which I would like to call "the integrated world". The idea of embodied experience offers the embodiment perspective to rethink the questions inherent to the avatar, namely the questions about the virtual and the real as well as the simulation and reality. This theoretical focus endorses the return of phenomenology, combined with both feminist and technological intervention.

The second core concept is the "three bodies" theory, which is inspired by Vivian Sobchack's concept of "the film's body" (Sobchack 1992, 2004), and therefore, can be viewed as the effect of the return to phenomenology. The "three bodies" theory stems from the contemporary concept of the body defined as an assemblage activated and embodied by the life dynamic. This notion of the body goes beyond the traditional criterion of material/nonmaterial as well as the boundary between the physical world and cyberspace. These three bodies are the physical body sitting behind the computer, the avatar body on the screen, and the gaming body in-between which is a process body emerging and only existing in the course of game playing: these three bodies form a relational entity.

The most significant innovations produced by the "three bodies" theory are that, firstly it legitimizes a change of status of the avatar, which can now be considered as a body. Secondly, it raises the concept of, what I will call, the "in-between gaming body", which directly leads to the third core concept – the theoretical shift from materiality to embodiment. This shift emphasizes the behavioral "performance", through which the interaction between these three bodies is activated, as the "in-between gaming body" is emerging with the behavior of playing a game. This shift also stresses a theoretical focus on a process, a process whereby one player's behavior temporarily activates the integrated world and, therefore, sets the identity and the categories of identification in a relational context constituted by the three bodies and, the multiple spaces they respectively inhabit. It supports a research approach that gives up the assessment of binaries based on the material or non-material distinction, to focus instead on an inquiry about how they interact. The emphasis ultimately falls on human life itself.

Structure of the dissertation

The rationale of this book is to demonstrate how synchronicity, revealed by the research on the avatar, offers a new perspective to rethink and update the concepts of the body, sex, and gender. The dissertation is divided into four

chapters, conforming to a logical order. The first chapter provides a background and material for the following three chapters, listing out the three major characteristics of the avatar. Based on which, the second chapter explores and proposes the epistemological position and perspective that this dissertation is taking, while the next two chapters function as the application of this perspective.

Chapter 1, *The Avatar: A Simulacrum of Human Life*, provides an explanation of the theme of the dissertation and maps out a research context by outlining some significant characteristics of the avatar and the consequences caused by them. By comparing the avatar with another kind of traditional simulacrum, namely the characters in a novel, the chapter investigates what differences the emergence of the avatar makes as well as what potential transformation lies in those differences. Interweaving the media synchronicity idea as the technical support and the imagination, the avatar is defined as a new simulacrum of human lives. The term of simulacrum implies the involvement of technology as well as the issue of the real/reality and the virtual, both of which are fundamental to the avatar. From the comparison, I stress three major consequences caused by the avatar, which are the shift from "boundary-crossing" to "boundary-blurring" in terms of the boundary between the real and the virtual, the rise of a network socialization, and the emergence of synchronicity as a principle.

Chapter 2, *RE…ING: the Epistemological Recovery of the Embodiment Theory and its influence on identification in the integrated world*, takes a step back to re-scrutinize the theoretical transformation on the basis of the three consequences discussed above, and paves the road for the following two chapters. I would like to name this theoreticall transformation RE…ING, which echoing the synchronicity perspective, can be viewed as co-existing between a reflection and an ongoing action.

This chapter stresses the third core concept of the shift from materiality to embodiment in terms of epistemology. I highlight the idea of the embodied imagination which bridges the real and the virtual, the physical world and cyberspace, and then deeply participates in the process of identification in the integrated world.

Chapter 3, *Three Bodies: The Invisibly Corporeal Body, the Visibly Imaged Body, and the Functioning "Gaming Body"*, raises the theory of "three bodies" and the synchronicity perspective to describe the situation of the body in the process of online game playing. Departing from the perspective of synchronicity, the body is no longer defined by the criterion of materiality/immateriality but of synchronized embodiment. By synchronizing multiple bodies in multiple spaces, the way in which the concept of the body is defined has shifted from a materiality-orientation to an embodiment-orientation.

Moreover, in the case of the avatar, media synchronicity embraces both the time and space which converge upon the concept of the body.

Chapter 4, *Rethinking Sex and Gender in Synchronized Environments*, focuses on the concepts of sex and gender as well as the dichotomy between them. This chapter starts with a review of the three main points of view on the concepts of sex and gender in contemporary feminist theory, to frame the approach I will take. Based on the theoretical exploration in the previous chapters, following the perspective of embodiment, my argument unfolds within the context constituted by the updated definition of the body and its relation to sex and gender.

The five hypotheses and the three core concepts explained above have been organized in the four chapters. However, since this dissertation aims to map out their interaction accommodating both the time and the space dimensions, those hypotheses and core concepts are related to each other in multiple respects..

Due to the interdisciplinary nature of my research, the argument I am defending will unfold in a non-linear but multi-leveled structure. This dissertation should be seen as a contribution to the development of digital media theory, by demonstrating how the embodied experience of playing an avatar in the condition of media synchronicity changes the way in which one identifies oneself.

In conclusion, this is an interdisciplinary dissertation, with a strong theoretical angle. My trust in theories drawn from gender studies and cultural studies allows me to focus on “embodiment” and expand it through “synchronicity” into a new framework to think about digitally mediated identities. This does not mean, however, that I believe in theory as an end in itself. For me, it is rather fundamental to believe that theory is the tool we need to address some of the practical and socially relevant questions raised by the “second self” on the internet, also known as “life on the screen”.

I hope my work will be useful to address and maybe even advance some of these issues further.

Chapter 1 The Avatar: A Simulacrum of Human Life

1.0 Introduction

At the opening of this chapter, I want to explicitly state the approach that I am adopting and the speaking position I am taking, for the sake of clarity. It is important to note that I do not develop any analysis on software or game design, nor do interviews with game players or data collection. Rather, I am adopting an approach from culture studies and gender studies, which means that, when I refer to some examples of online games or digital technology, my focus lies in the significance of them in terms of culture.

In this vein, I would like to make a brief explanation of the avatar, the theme of my whole dissertation, and its research value. The word "Avatar"[①], derived from Sanskrit, refers to the descent of divinity from Heaven to Earth, and is typically used to describe an incarnation of God. According to Paramhansa Yogananda, a famous Indian yogi, guru and the author of *Autobiography of a Yogi*, the term "avatar" refers to a soul who has been freed from maya (delusion), and is sent by the will of God back into manifested existence to help others. Yogananda states that an avatar "is born not to show us how great he was, but to give us hope that the state of consciousness he had attained, we too can attain."[②]

This word "avatar" has been utilized to designate the virtual representative of a user/ player, as David J. Gunkel observes, since the "many-player online virtual environment" of Lucasfilm's *Habitat* (1986) and Neal Stephenson's *Snow Crash* (1992), the first cyberpunk novels to feature a Matrix with a personality and the first hints of virtual reality. The word "avatar" has been used in four domains: a text-based multiple user domain (MUD); a massive multiplayer online role playing game (MMORPG) like *The World of Warcraft*; a non-gaming 3D immersive environment; and an online social network like Facebook and Twitter (Gunkel 2010). According to Gunkel's observation, in the process of exploring the avatar, game studies theory and perspective should be taken into account. The player can arbitrarily choose a gender for an avatar, manipulate the body image of the avatar on screen, and communicate with other players through the avatars on-line. All those capabilities brought about by the emergence of the avatar unfold different characteristics, and predict a

① "Avatar" from Sanskrit origin is capitalized in order to differentiate it from "avatar", which designates digital characters in cyberspace.

② http://www.ananda.org/glossary/avatar/

series of transformations of the existing categories, especially those for identification, including the concepts of the body, sex and gender.

I define the avatar as an embodied simulacrum of human life in cyberspace, into which the faculty of imagination and cybernetic techniques, which make the imagination come to life, are integrated. In the course of this integration, the basic mechanism is the feedback loop system. Additionally, as I will elaborate in chapter 2 and chapter 4, imagination per se, is not only a faculty of human beings, but also a capacity to participate in the process of identification.

Meanwhile, the avatar, produced for online game playing and communication, has been established and is establishing a virtual or online society, that is connected to our daily lives, as every avatar is played by a physical player. This significant connection highlights the issue of how to distinguish and deal with a virtual society and a physically daily life. To discuss this question, a network perspective needs to be introduced. Departing from this perspective, however, the boundary between online and offline life, and between virtual society and daily life, is blurring, instead of a "porous membrane" (Castronova, 2005).

I would like to highlight the embodiment principle as the fundamental support to my comprehensive research on the avatar, because this principle is employed throughout the dissertation. My assumption is that where technology has become one indispensable dimension of research, even humanities research, it does not draw a clear line between human and non-human, or transform everything into information, data, or a programme written by binary code. Instead, it shows that embodiment as a principle has been concealed for a long time and cannot be ignored any more, as my research on the avatar proves. A detailed analysis of the embodiment principle and the relationship between embodiment and technology-orientation feature in chapters 2 and 3 respectively.

This chapter looks at the remarkable characteristics of the avatar by comparing it to another kind of simulacrum, namely the characters in a novel. Although some scholars tend to consider the emphasis on simulation/simulacrum as a clichéd (Kingsepp, 2007; Lehdonvirta, 2010), according to the definition made above, I still consider that the avatar as a simulacrum is its most important and fundamental characteristic. On the one hand, it is the intuitionistic characteristic of the avatar, because it is always directly seen as and called a virtual identity of a real person; even the username of the avatar is called the virtual ID. Additionally, the term "simulacrum" also implies the dimension of technology, the scientific simulation in particular. On the other hand, as a virtual ID, analysis of the simulacrum characteristic naturally opens the discussion of the issue of identity/identification, and accordingly, existing methods and categories of identification, such as the body, sex and gender. These differences, when analysed and explored in this chapter, lead to what I would like to call "a change in epistemology". They also predict a series of

changes in both the notion of the above categories, which people used to rely on for identity, and the way these categories function. The epistemological change will be discussed in chapter 2, while the changes in those categories will be explored in chapters 3 and 4 respectively.

To outline the remarkable characteristics of the avatar, the first section is a comparison between the avatar and the characters in a novel, that latter being a typical kind of simulacrum in terms of aesthetics with a very mature theoretical tradition. My assumption is that the most significant nature that differentiates the avatar from the characters in a novel is the intervention of technology, as well as the extent to which technology interacts and fuses with imagination. As a result of being separated from the physical body and then visualized on screen, the avatar is presented as an "other" and interacting with the physical body. In turn, it not only distinguishes the avatar from any former simulacra, but also highlights that the avatar is embodied. Significantly, this recovery of embodiment is not an easy job, because being separated from the physical body and being visualized by technology have always been intuitively viewed as perfect evidence for scientific disembodiment and digital encoding. I will come back to this point in chapters 2 and 3. Consequently, the avatar is embodied, while the character in novel is still interpretative-based.

Three aspects of the comparison between the avatar and a character in a novel are: (1) fundamentals of production mechanism; (2) the limits and/or the way in which they negotiate with the "others"; (3) the relationship between the product and the subject. My conclusions are that firstly, for an avatar, the fundamental production mechanism is cybernetics technology, while that of the characters in a novel is artistic imagination. This does not mean that the avatar has nothing to do with the faculty of imagination. On the contrary, imagination is an integrated and implicit element in the development and playing of the avatar. Secondly, an avatar is capable of negotiating with the rules of the game and other players, which reveals that, for the avatar, the so-called "magic circle" is no longer static and fixed. Conversely, the characters in a novel are confined within this circle, and the activity of interpretation is merely a one-way action from one side of the circle to the other. Significantly, the case analysis shows how MMORPG designers purposely encourage and lead the subscribers to display a "second self"(Turkle, 2005), and develop inter-player communication and relationships, rather than merely fulfilling tasks or passing through checkpoints. As a result, imagination, which used to be an artistic means in literature, has become a means related to the process of identification. The third conclusion is that the feedback loop mechanism makes a difference in the relationship between the product and the subject, and results in a shift from "interpretation", which is related to characters in a novel and the activity of reading a book, to "performance", which describs how an avatar behaves in cyberspace.

The second section of this chapter provides a more specific analysis of the consequences caused by those differences been outlined in the first section. The first consequence is a shift from “boundary-crossing” to “boundary-blurring”. This shift is evoked by the first difference that technology makes imagination visible and embodied; in other words, to create a digital version of life. Blurring the boundary between the virtual and the real also leads to the rethinking and redefining the “real/reality”, which I will come back to in chapter 2.

The second consequence refers to the avatar’s capacity of negotiation and the consequent network socialization. This negotiation takes place not only between players and the gaming rules, and between different players within the process of game playing, but also between online role-playing games, social networking applications, and everyday life. From another angle, continuous and multiple negotiations create a network with shared imagination and cooperation in online role-playing games, while intensifying the tendency towards boundary-blurring between the game world and daily life. The consequence of this intensification is the forming of what I would like to call an “integrated world”.

The third consequence is the return of the body, especially the embodiment principle. The feedback loop reveals the fact that the body is always pivotal, as it is simultaneously as the controller and receiver, and then highlights the role of the body even in technological environments. Cooperating with the faculty of negotiation, the feedback loop function expands the connotation and boundary of space and time, and develops the definition of media, whereby it turns the body of the player into an embodied medium. It echoes Bernadette Wegenstein’s assertion, “the medium, in other words, has become the body” (2006, p.121). These consequences trigger the much more significant and essential changes in terms of epistemology, and directly influence the way in which people identify themselves. These issues are elaborated upon in chapter 2.

1.1 What is an avatar? A high simulacrum of human life

This section elaborates on some unique characteristics of the avatar by comparing it with the characters in a novel in terms of the simulacrum nature of them both.

Before starting the comparison, I consider whether or not the avatar is a simulacrum, and if so, why it is a new type of simulacrum. To do that, I will refer to Jean Baudrillard who profoundly developed the theory of simulacra and hyperreal, and used this to depict, and criticize, one significant epitome of

Western post-modernist culture. In his later work, Baudrillard (1991) defined three orders of simulacra (p. 121). The first order is "natural, naturalist, founded on the image, on imitation and counterfeit", which belongs to the imaginary of *utopia*. The second order is "productive, productivist, founded on energy, force, its materialization by the machine and in the whole system of production – a Promethean aim of a continuous globalization and expansion", which corresponds to science fiction. The third order is the one of simulation, "founded on information, the model, the cybernetic game" (p.309). According to this clarification, the third order of simulacra includes the avatar. In other words, the avatar is one of a new type of simulacra at the highest level, while the characters in a novel belong to the first and second orders.

It is worth noting that Baudrillard's clarification uses the criterion of to what extent technology is involved, or, in other words, the criterion of scientific simulation. This is proven by his statements. Since it is justified to consider the characters in a novel as first order simulacra and avatars as third order, it is also justified to view the criterion of his clarification, namely the extent of technological involvement, to support my assumption that one significant and fundamental difference between the first order and the third is the in-depth intervention of technology. Some scholars of game studies also hold a similar view and consider computer games as simulations (Aarseth, 2003; Frasca, 2003; Jenson &De Castell, 2009).

Within these three orders of simulacra, Baudrillard (1991) pays most attention to the third order, as it is the newest, and also because, for him, it is a death declaration of the imaginary. "The good old imaginary of science fiction is dead and something else is in the process of emerging (not only in fiction but also in theory as well)" (p.309). For a similar reason, I pay more attention to this third order of simulacra as well. Contrary to Baudrillard's theory, however, I argue that the avatar does not "kill" the imaginary, but rather it is an integration of imaginary/imagination and technology. Significantly, technologies, and especially cybernetic technologies, play a midwife role in the birth of the avatar, and form a watershed in the development of simulacra.

After all these clarifications and explanations of discourse context, I turn to the comparison between the avatar and the characters in fiction and/or other art works, in order to emphasize the difference between the second and third orders. My assumption is that the most significant characteristic which differentiates avatars from characters in a novel is the in-depth intervention of technology, in particular the feedback loop mechanism, and the cooperation between technology and artistic imagination, which is one of the major artistic means of creative writing and characterization. On the one hand, technological involvement illustrates the difference between simulation and mimesis as well as between technology and art, or aesthetics. On the other hand, this difference does not cover up, instead highlights the homological principle that the two kinds of simulacra follow – the embodiment principle. In the following

comparison between the avatar and characters in a novel, I depart from the definition of the avatar as a simulacrum integrated by cybernetics technology and imagination, as well as an embodied creation founded on the basis of the feedback loop and visualization technology, and foreground the embodiment principle.

To make the comparison, I have chosen the Chinese classical novel *Journey to the West* and a Chinese MMORPG named *Fantasy Westward Journey* as examples. On the one hand, both the novel and the game have strong roots in Chinese mythology, which empowers the examples to richly demonstrate my assumptions of the important role of the faculty of imagination and the fact that technology can visualize the products of imagination. On the other hand, as I will prove, the comparison suggests that this online game stresses the players' interaction and their game experience much more than just faithfully transplanting the plot from the original work.

As I outlined above, the comparison embraces three aspects. The first aspect relates to the differentiating production mechanism of these two types of simulacra. The production mechanism of the avatar is cybernetics technology, while that of the characters in a novel is artistic imagination. That does not mean that the avatar has nothing to do with the faculty of imagination. On the contrary, imagination acts as a very important role in the development and usage of the avatar but not as a fundamental difference between those two types of simulacra. This aspect is looked at in more detail in the subsection below.

1.1.1 Cybernetics vs. Imagination[①]

This subsection explores the difference between the avatar and the characters in a novel, encompassing the two key terms that are highlighted in the title, namely cybernetics and imagination. They act as two fundamental elements, or

[①] When the term "simulacra" is discussed, the two concepts "imaginary" and "imagination" are always used synonymously. Considering "imaginary" is also defined as a particular term in Lacanian psychoanalysis theory, I would like to use "imagination" to indicate this issue except references. However, I do not intend to view the term "imagination" as an opposite concept to "cybernetics"; instead I consider them as two different concepts with different, even opposite, dimensions but interweaving with each other. In the course of the interweaving, more room and potential dimensions are explored. The whole picture of the world is no longer two-dimensional, as Baudrillard's theory suggests, but three, even more dimensional. Moreover, I use this term as a doubt and reflection of the traditional conflict between instrumental rationality and transcendence. Therefore, I hold a more affirmative perspective on the relationship between technology and traditional arts and their future. This issue is discussed in chapter 2.

even forces, that simultaneously make a contribution to the existence of the avatar, whilst fighting against and fusing with each other.

My assumption is that the fundamental difference between these two types of simulacrua lies in the difference between simulation and mimesis, which are based on cybernetics and imagination respectively. Put another way, the fundamental difference relates to the extent to which technology is involved. This assumption does not mean that I have adopted a binary perspective to understand the relationship between cybernetics and imagination. Rather, I would like to stress that the combined force of them triggered the birth of the avatar and the emergence of cyberspace. More than that, the combination of imagination and cybernetics makes the avatar embodied, which differentiates it from other simulacra, including fictional characters. I intend to raise the assumption here, and elaborate on it further in chapter 2.

Contrary to my understanding of the relationship between imagination and cybernetics, Baudrillard (1991) uses "cybernetics" as an opposite term to the "imaginary", and even considers simulation, "in the cybernetics" sense, as the terminator of fiction. He assets that: "models no longer constitute an imaginary domain with reference to the real; they are, themselves, an apprehension of the real, and thus leave no room for any fictional extrapolation – they are immanent, and therefore leave no room for any kind of transcendentalism" (p.310).

I do appreciate the significance of the question Baudrillard raises from his observation and consideration of the consequences brought about by cybernetics, or in general Internet technology and digital techniques. The phenomenon that imagination is partly replaced by and interweaving with cybernetics as a way in which images are created, suggests that technology has become a power that deconstructs the traditional perceptive method of art, and realizes the products of imagination in a superficial and anti-transcendent way. Then again, I do not accept all of Baudrillard's conclusions and the perspective he takes where he tries to draw a clear line between the faculty of imagination and technology, particularly cybernetic technology.

I argue that, contrary to Baudrillard's statement, technology is not opposite to imagination. Rather, the avatar is a product and fusion of technology and imagination, and of these two mechanisms. To demonstrate this, I firstly offer a brief overview of these two key terms to vier a succinct background for the following analysis, and subsequently outline the unique characteristics of the avatar by comparing it with characters in a novel.

Imagination is a very important concept in both aesthetics and philosophical tradition. The transcendental function and the capacity of bridging the present and absent, or in Wolfgang Iser's words the "boundary-crossing" function, as

two remarkable characteristics of the faculty of imagination have been emphasized and fully developed by philosophers and theorists. The former was, and still is, one criterion to judge what is good or bad art, and is the main reason why Baudrillard devalues the third order of simulacra and mourns for the post-modernist society. Based on the loss of transcendentality, he criticizes and attacks postmodern arts and cultural industry, especially mass media fuelled by the Internet. Connected to some critics accusing online games of being degenerate and addictive, they apparently follow a similar line.

According to early theories about the faculty of imagination, in the course of creating fictional characters, artistic imagination is essential. Emancipated by the faculty of imagination, those art works develop the possibility and capability to fly away or flee from a boring daily life to an aesthetic and transcendent wonderland. It is worth noting that, in those theories, the transcendental function of the imagination was always highlighted and viewed as the most important characteristic of the faculty of imagination. Even for a seemingly deviant Baudrillard, this is implicit in his nostalgic statement about the simulacrum in the post-capitalist era.

The latter function of the imagination, namely the bridge function, relates to the process of production and the potential offered by literature, music and other arts. As Iser argues in his book *The Fictive and the Imaginary: Charting Literary Anthropology*, "the special character of literature is its production through a fusion" of the fictive ("an act of boundary-crossing which, nonetheless, keeps in view what has been overstepped"), and the imaginary[①] ("a featureless and inactive potential, which accounts for the failed attempts to grasp it cognitively") (Rabinowitz, 1995, p.188). For the imagination, "in spite of different conceptualization to which the imaginary has been subjected as faculty, act, or Ur-fantasy, there are certain features that all three have in common" (Iser, 1993, xvii). Iser argues that the imagination "is not a self-activating potential but has to be brought into play from outside itself", "but has intentions imposed on it by the demands of its activator" (ibid). I would like to consider it as what the "featureless and inactive" description of the imagination indicates. When the fictive act occurs - in other words, when the demand of making fictive occurs - the imagination is activated and "discloses itself in an interplay with its different activators" (ibid). In this sense, within Iser's theoretical framework, the fictive can be seen as an activated imagination with specific intentions and, accordingly, as the capability of "boundary-crossing". I conduct a more detailed analysis of this capability in section 2.

[①] In his book review of Iser's work, Rabinowitz points out that, indeed, Iser uses the term "the imaginary" as an equivalent to "the imagination", even if Iser insists on the former one. Irrespectively of whether Rabinowitz's comment is admissible, this raises the issue that these two terms are always confused and relative. Therefore, for the sake of clarification, I will use the term "the imagination" to analyze Iser's work, except for some direct quotations.

Furthermore, Iser introduces the term "play" into his elaboration of the imagination. As a result of the imagination interplaying "with its different activators", play "is both a product of activation and the condition for the productivity brought about by the interaction it stimulates. It is this dual process that gives rise to the imaginary and its presence (ibid)." The "boundary-crossing" capability of the imagination, and its relevance to play, opens the door to recent interdisciplinary perspectives in the research and theory establishment, especially towards online game studies. Online games are on the one hand concerned with "play", which is the traditional concept in philosophy and aesthetics field, but, on the other hand, with "cyberspace", the ubiquitous domain in modern life.

Compared to the long history of the term "imagination", the word "cybernetics" coined by Norbert Wiener in 1947, is much newer. The word "cyber" derives from the Greek verb "Kubernao", which means "to steer", and meaning both "navigation through a space of electronic data" and "control which is achieved by manipulating those data" (Heylighen, 1993). It is considered to be a neologism that has best described a new interdisciplinary science of control and communication, which has subsequently brought about the reconceptualization of the human body and life (Tomas, 1995, p.22). There is no doubt that the emergence of the word "cybernetics" develops a new way of looking at, and thinking about, human beings. As Hayles (1999) puts it, "humans were to be seen primarily as information-processing entities who are *essentially* similar to intelligent machines" (p.7). In order to explore the body/machine interface, one approach is to probe the distinction between two kinds of simulacra – the avatars and the characters in fiction - in terms of cybernetics.

In Baudrillard's work, cybernetics, as the target of criticism, is an opposite term to the imagination. I would like to reiterate that I do not view the two as opposite terms. Instead, I understand them as two different methods and mechanisms of representation in different ages. In other words, as methods, they are limited and partly determined by different times, and therefore, they are different but complementary, and open to other new methods or mechanisms emerging in the future.

It is undeniable that an avatar would never exist without cybernetic technology, while characters in novels can. So, it is justified to argue that the basic difference between these two kinds of simulacra lies in whether or not and to what extent technology is involved in their creation and the process of their development. More specifically, the difference between the faculty of imagination and cybernetics leads to the difference between the avatar and characters in novels. The characters in novels are products of imagination, while the avatar is a production of a fusion of imagination and cybernetics, although it is represented as a disembodied image based on communication technology.

As a traditional simulacrum, characters in a novel are shaped and figured out on the basis of the faculty of imagination. With the help of imagination, artists devote their full passion and enthusiasm to create characters that exist in different lives, have different personae, and experience thrilling adventures or even unbelievable things. Dante traveled through Hell, Purgatory, and Heaven, Don Quixote fought with a windmill bravely, Cosimo lived in the trees, and Flaubert savoured the bitter taste of poison when he wrote about the death of Madame Bovary. Through their artistic fiction, artists embody the ideals in their work, which are always viewed as the eternal themes of the arts but cannot be seen and touched directly, such as freedom, love and fate. In other words, imagination turns the untouchable ideals into something intelligible and vivid, even though they are still invisible and untouched.

I would like to employ the Chinese classical novel *Journey to the West*, as an example. This novel was published in the 16th century during the Ming dynasty and is attributed to Wu Cheng'en. In the story of this novel, the Tang dynasty Buddhist monk Xuanzang embarks on a legendary pilgrimage with his three disciples to India (TianZhu) to obtain Buddhist scriptures. During the journey, they have to overcome eighty-one tribulations set by the Buddha, fighting against a large amount of evils and monsters and dealing with bodhisattvas or Taoist sages and deities. The novel is very imaginative in describing spectacles of rebellions and fights, such as the Monkey King (Sun WuKong) revolting against Heaven, as well as various spirits and deities, such as the four Sea Dragon Kings, Guanyin (Bodhisattva Avalokiteśvara), and spider spirits. Even the Monkey King himself, as one protagonist of the novel, was born from a magic rock without biological parents but by the miraculous natural power of Heaven and Earth. “He” can speak, has all human feelings, and excels in martial arts and supernatural power. Apparently, these characters and fight scenes do not take place in physical life but imagined. In a word, this novel creates an imaginative artistic world in which a large amount of supernatural beings exist, people encounter and fight against fate, which is embodied in those tribulations set by the Buddha as well as in the uproar in Heaven evoked by the Monkey King, in pursuit of freedom.

Similarly, even in science fictions, characters like cyborgs, robots and aliens, are still products of the faculty of imagination, although to some degree authors must obey the principles of science. Put another way, science fiction is preliminary a product of the combination of the imagination and technologies, thus, two principles need to be emphasized. The first is that the faculty of imagination includes scientific imagination. The fantastic technologies, weapons and whole civilizations presented in science fiction can be viewed as products of scientific imagination. As is well known, submarines, spaceships and bio-technology featured in famous science fiction works long before they were created or discovered materially by scientists who obeyed the updated science principles. Those products were seen as pure fantasies, or even myths, when those works of science fiction were initially published. It is no

exaggeration to say that scientific imagination inspires and facilitates science development. The second principle in science fiction is that artistic imagination is prior to scientific theorems. The scientific ingredients should be considered as the starting point of artistic imagination, rather than a substitute for imagination. The potential and charm of literature, including science fictions, are the aesthetic pleasure, spiritual freedom and possibilities of boundary-crossing. In this sense, scientific ingredients should be seen as a criterion to distinguish different literary genres, but it is not so fundamental as technology is to the avatar, or in Baudrillard's words, the third order of simulacra.

Now I return to Baudrillard's theory to discuss the relationship between imagination and cybernetics, followed by an exploration of the possibility of combining them. In my case, the possibility is embodied in the avatar. Herein, I agree with Baudrillard's description about the second order of simulacra, to which characters in a novel belong, especially in science fiction. According to his clarification, this order of simulacra is "productive, productionist simulacra" and "based on energy and force, materialized by the machine and the entire system of production. Their aim is Promethean: world-wide application, continuous expansion, liberation of indeterminate energy (desire is part of the utopias belonging to this order of simulacra)" (Baudrillard, 1991, p.309). Indeed, this statement can be applied to describe the whole modernist era, not just simulacra.

Regarding the relationship between the imagination and technology, Baudrillard creates an opposition between the second and the third order, by accusing cybernetics of leaving no room for, and finally "killing" the imagination. It is true that an avatar cannot exist without the elements of the cybernetics mechanism, the feedback system and internet technology. Vice versa, it is also true that there would not be an avatar without the imagination or shared fantasies about who we are or what we can do, at least not the avatar people are using, playing with, or currently discussing. In this sense, my point of view is that the avatar fuses the imagination and cybernetics; in other words, fuses two natures of Baudrillard's second and the third order of simulacra.

I would like to use the online game World of Warcraft (WOW) to exemplify the possibility of fusing imagination and cybernetics. I have choosen this game as an example is because it is one of the most popular MMORPGs in the world, with a subscriber base of 9.6 million by the last quarter of 2012. The storyline of WOW is borrowed from Nordic mythology and transplanted into a hypothetically mysterious continent named Azeroth. A player can choose their avatars from eight races with two genders in two factions: Alliance and Horde. Similar to other MMORPGs, a player can create multiple avatars within these eight races, and control them to act and move within a persistent game world, including exploring the landscape, fighting monsters, performing quests, building, and interacting and chatting with other players. To be engaged in WOW, the player needs to accept and share this imaginative storyline, set of

identities, and then embody it themselves. Players share the same maps, missions and rules of the game, especially the jargon. For example, in the WOW context, CD usually means the CoolDown time after a spell casting instead of compact disc, while MP indicates the magic point of an avatar, and AV refers to a place named Alterac Valley. The jargon, as those examples suggest, sometimes excludes non-players, and thereby establish an exclusive network for, and only for, these players.

Inevitably, this exclusive network is also engaged in shaping the players' identity. I come back this point in the next section. It is worth noting that not only are the storyline, plot, the side quests, races (e.g. Night elf, Gnome, and Tauren) and the figures of all kinds of characters are all imaginative creations, but also the rules of the game are too. All these elements of the game are realized by the support of a cybernetics system. Without the technological support, the avatar cannot be presented and created on the screen, nor can it be controlled or communicate with other avatars. Meanwhile, without the above imaginative creations, the avatar is nothing more than a cursor on a screen, or a mouse click.

These kinds of MMORPGs, also called "Fantasy gaming"[①], refer to a specific culture characterized as sharing "worldviews, lifestyles, tastes, and affinities, as well as collectively-imagined selves/identities" (Williams et al, 2006, p.2). This term underpins that imagination plays a very important role in MMORPGs and develops another dimension - a shared network/identity – which is shaped through online games and interactions between multiplayers' avatars. Players share their fantasies with each other and consequently expand another dimension of the faculty of imagination, whereby cybernetic technology represents and visualizes imaginative stories and fantasies on the screen. A fantastic storyline, mysterious figures, and other elements created by imaginative designers form the charm of those online games. It is imagination and cybernetics working together makes the avatar what it is now. Simply put, the avatar fuses these two forces or elements together. Similar to the cooperation between the software and hardware within a computer, a combination of the imagination and cybernetics system makes WOW so attractive. Nevertheless, for the avatar and computer games, technology is the vehicle and the primary support.

Returning to the comparison, I argue that different depths of technological involvement distinguish the characters in a novel from avatars. For the former, artistic imagination is its fundamental mechanism, while the latter is a fusion of imagination and cybernetic techniques. Because of the involvement of the imagination, the avatar is totally different from other products of cybernetics techniques such as robots, crafts, etc. With the help of technology, the products of imagination are partly realized or presented on the screen. Although in

[①] "Fantasy gaming" as a unique genre of games is capitalized in order to distinguishfrom fantasy in general.

games fire dragons, fairies and Elves are played and acted by the players to fight and live to achieve honour and grants, this realization is still based on the intervention of cybernetic technology. Baudrillard's theory of three orders of simulacra does point out some significant changes triggered by cybernetics, but the avatar, as my analysis shows, fuses these two production mechanisms, rather than "kill" the imagination.

Moreover, the imagination, by benefitting from cybernetics and other techniques, can be visualized and presented as something seen, shared, experienced, played with, even updated. It helps one avoid the paradox that many philosophers who have attempted to discuss the nature of the imagination had met before: namely that the imagination ends once one attempts to discuss it. That is, in some sense, what Baudrillard's statement of "the imaginary was the alibi of the real" means (1991, p.310). Contrary to this paradox, the avatar, as a visualized outcome of the imagination but staying on the other side of the physical daily life, opens the door towards a more profound discussion and exploration, from which the embodiment principle is recovered like an extremity counterattack. Even better, in cyberspace and in online games, the imagination can be utilized in an individual way that every player likes, although being limited within some rules set up to maintain a bigger shared fantasy. For instance, being engaged in an online game means that a player always needs to follow the rules including the grants policies, operation guidance, no-cheating principle. Such shared fantasies predict the rise of a network society that goes through and connects the cyber world with the physical world, and then evokes another dimension of the imagination, namely as one method of identification. This subject is revisited in chapter 2.

1.1.2 Magic Circle[①] and Negotiation

This subsection explores the second fundamental difference between the avatar and characters in a novel, namely the negotiating interaction and subsequent network perspective, which both emerges from and is fuelled by the avatar in cyber context. The negotiation and network perspective are based on and supported by modern communication technologies, so I put it in second place. It is important to note that the negotiation and the network perspective are interdependent, and are just staeted in this order for utterance.

Firstly, I look at the traditional, although recently challenged term of "magic circle". On the one hand, the theory of negotiation and network perspective are solutions and institutional terms of "magic circle (Copier, 2009). On the other

[①] The concept of "magic circle" is borrowed from Huizinga and has been employed in games studies for more than a decade. I would like to use it to indicate the domain that is shaped during the course of game playing. This domain has a distinctive boundary by which the real world and the game world are distinguished.

hand, if a novel is viewed as the creation of an independent fictive world[①], it is also, in some sense, a magic circle. This suggests that the theory of "magic circle" can be applied to both the avatar and fictional characters.

Herein, I do not mean to explore the original notion of the term "magic circle", but instead pay attention to the way recent researchers have challenged this term and the alternatives they have offered. To clarify, I would like to understand the "magic circle" from a general perspective that sees it as a concept about "boundary". The boundary between play and non-play, game and non-game, and between the inside and outside of the imagined realm of a fictive work. In my view, the term "magic circle", even including one substantial term "porous membrane" given by Castronova, is inadequate for updated online games but is still adequate for analysis of characters in a novel. This inadequateness precisely maps the gap between the avatar and fictional characters.

Departing from the term of "magic circle", I argue that the avatar can be seen as an updated morphotype of fictional characters, and the essential distinction between them lies in whether or not the magic circle is static and fixed as well as the way in which one can enter into this circle. In other words, the difference is concerned with the way in which the boundary between the game world and the real world is defined and functions.

As Marinka Copier (2009) summarizes, the term "magic circle" became one of the core concepts to define the game experience due to the work of game designers and researchers Katie Salen and Eric Zimmerman (2004), who initially borrowed this term from Johan Huizinga. Copier points out that Huizinga's original meaning of this term has been distorted and misunderstood because of some improper translation from Dutch to English. According to her, for Huizinga, "magic circle" is just a phrase, and is juxtaposed with other similar play arenas: "the card-table, the magic circle, the temple, the stage, the screen, the tennis court, the court of justice, etc., are all in form and function playgrounds, i.e., forbidden spots, isolated, hedged round, hallowed, within which special rules obtain" (Huizinga, 1938, p.10).

What I am interested in is not Huizinga's original meaning but the way subsequent scholars challenge this term, and the alternative term or perspective they give as an alternative. Salen and Zimmerman (2004) opt for "magic circle" to define the game world and stress that "to play a game means entering a magic circle, or perhaps creating one as a game begins(…). Within the magic circle, special meanings accrue and cluster around objects and behaviours. In effect, a new reality is created, defined by the rules of the game and inhabited by its players" (p.95-96). Herein, they outline two core terms I would like to

[①] To distinguish from the term "magic circle", I would like to use "fictive world" to designate the unique imaginary world created and shaped by reading fiction works. This fictive world is the whole context for characters in fiction works and has its own space, time, and rules.

emphasize: the boundary between the game world and the real world, namely the "circle"; and the rules on which "a new reality" within the magic circle is constructed. These two core terms are also the reason why recent researchers such as Castronova (2005), Consalvo (2009), and Copier (2009), attempt to challenge the term "magic circle". As Copier points out, this term, "which resonates references to 'walled off' magic rites and places, supernatural powers, illusions and experiences", "creates a dichotomy between the real and the imaginary" then "blinds us to the ambiguous qualities of games and game play" (Copier, 2009, p.160). As a result, some researchers are trying to "find a way around the 'magic' and the 'strong boundaries' of the metaphor of the magic circle", in order "to express how they can both be open and closed" (P.165).

Edward Castronova (2005) employs the term "porous membrane" as a substitutional term in his analysis on MMORPGs to describe the interaction between players' online gaming and their offline life. According to his observation, "people are crossing it [the membrane] all the time in both directions, carrying their behavioural assumptions and attitudes with them. As a result, the valuation of things in cyberspace becomes enmeshed in the valuation of things outside cyberspace" (p.150). Castronova's term "porous membrane" vividly describes the way in which the interaction between the game world and the real world happens, but is still not adequate enough to reveal the most fundamental characteristic of the game world. As I will demonstrate, by comparing the different situations of an avatar and a fictional character, this inadequateness comes from the context within which this term "porous membrane" works.

Applying the concept of the "magic circle" to characters in a novel, it appears that, based on the faculty of imagination, the novel per se constructs a fictive world which is independent, autonomous, but is still connected to people's lives in the physical world. "Independent" and "autonomous" mean that this fictive world is untouchable, separated from the physical world, existing within its own boundary and constructed by its own rules. "Connected" suggests that, on the one hand, it is a product of simulation of the physical world, and on the other hand, it is only connected to the physical world instead of interacting with it.

Lacking the capacity to interact with the physical world suggests that there is only a one-dimensional relationship between the fictive world created and the physical world readers live in. Then, what if one applies the term "porous membrane" to the fictive world in a novel? It also works when the fictional work is replaced by a game. When people read a novel, they cross the boundary between the fictive world and physical daily life, and carry their assumptions, expectations and preoccupations with them. Thus, "porous membrane" does describe one important characteristic of the "magic world", but does not point out the most distinguished nature. The process of crossing the magic circle is precisely the process of interpretation that happens in the course of reading a

book, or sharing a common imagination. If the same characteristic can be applied to more than one thing, it cannot be the most fundamental characteristic, unless those things are the same, or at least similar to each other. Obviously, this “porous membrane” perspective works even when the digital-game-playing context is replaced by another, in this case, a book-reading context. In this sense, the “porous membrane” follows the same vein as the “magic circle”, rather than offering a new perspective.

I would like to further explore this alternative offered by Castronova to highlight a new understanding about the boundary inspired by the “both direction” pattern he raises(Castronova, 2005, p.150). According to Castronova, where the “porous membrane” differs from the “magic circle” is the possibility of “crossing” “in both directions”. That is not only the way in which people cross the boundary, but also the way the porousness functions. In my view, the “both directions” way is nothing newer than how the “magic circle” works. On the one hand, the “porous membrane” does acknowledge the existence of a fixed boundary; otherwise, a porous access is unnecessary and meaningless. Meanwhile, porousness, in some sense, relieves the tension at the boundary and thus keeps the boundary intact. On the other hand, there is no permanent resident who lives, and only lives, in a fictional world. Indeed, “people” who are concerned with either the “magic circle” or the “porous membrane” live, indeed only live, in the physical world. It means that the so-called capacity of crossing the boundary “in both directions” is nothing more than a round-trip made by people staying on one side. Given this, the question is no longer about which side and how many sides, but about the one who is crossing these sides. Focusing on the account of how many sides one can cross disguises the significant principle that needs to be discussed: the embodiment principle(of which more in chapter 2). The “round-trip” mentioned above is exactly what one does when one starts to read. This is also precisely why the perspective of the “porous membrane” is not adequate for describing a fundamental characteristic of the boundary of game playing. The concept of “porous membrane” goes further than the traditional “magic circle”, but does not go far enough to take into account the embodiment principle and embodied nature of the avatar as “negotiation”.

For this reason, I turn to another important term, namely “behaviour”, which embraces what has been ignored or overlooked by the “magic circle” and its replacement. I would like to stress that the concept of behaviour includes behaviour of negotiating and actions in gaming literally, and behaviour-based negotiation between the game world and physical worlds symbolically. “Behaviour” highlights the role of the person who is behaving in a particular way, and the role of the body that is embodying this behaviour. The capability of behaving through a body which is an assemblage constituted by the avatar and the player's body, distinguishes the avatar from characters in a novel, and furthermore distinguishes the embodied avatar from the intelligent-oriented interpretation (The body assemblage is elaborated on in chapter 3). As Markku

Eskelinen (2001) points out, "to generalize: in art we might have to configure in order to be able to interpret whereas in games we have to interpret in order to be able to configure" (p.2). Although he notes that this statement is a result of studying games like Tetris, and excludes MUDs (Multi-User Domains) and MMORPGs, due to the complexity of these latter types of games, his conclusion is still useful to distinguish artistic narrative and game configuration. The comparison focuses on the reader/player, or in other words, the outsider who wants to enter into a unique world, whether this world is created in the course of playing or is created by a work of fiction.

Applying Eskelinen's statement to the more complicated case of MMORPGs, the outsider gets their counterparts in different contexts: characters in fiction art and avatars in online games. In game playing, behaviour is for configuration, while in reading it is for interpretation. The former is unfixed and able to negotiate with the environment, while the latter is a one-dimensioned intentional interpretation. The reader can cross the boundary to start or finish a new interpretation, while the characters, as an essential element of narrative and representation, are set by rules and constrained within a specific fictive world, waiting to be interpreted. Even if, at the beginning of a book-reading, a reader needs to adapt to the specific rules in a specific fictive world, the characters are stable. A reader needs to adjust their own experience to meet the rules of a science fiction novel or a fairy tale in the first place, for instance, accepting that a fairy can turn a pumpkin into a carriage, or Superman comes from the planet Krypton. In other words, characters in novels are set within and then exist as part of the rules instead of negotiating with the rules.

For avatars, it is a different story. The aim of playing is always to win, or, in MMORPGs, to gain prestige (Aarseth, 2003). To do so, a player must do their best to keep their avatar(s) in play, prevent them from "dying" by violating the rules, and negotiate with other players to achieve some specific prestige or fulfill group demands. Those efforts are precisely what Eskelinen's idea of "configure" refers to. In this sense, a constant learning and negotiation of the rules is necessary and essential to play an avatar in MMORPGs.

I would like to use the game *Fantasy Westward Journey*, which is a very popular domestic MMORPG in China[①], as an example to demonstrate the role of negotiation in this kind of game playing. As a player of the game *Fantasy Westward Journey*, one needs to choose and create an avatar from fifteen characters with three races: Terran, Deity, and Demon. Then one needs to choose one martial school to learn specific spells and skills. This can be viewed as negotiating and getting acquainted with the rules of this game, while what following is negotiation with other players. In this game, none of the attack skills and spells are perfect, which stresses not only the importance of team

[①] The game *Fantasy Westward Journey* was developed and launched by NetEase in 2003. As one of the most popular domestic MMORPGs in China, its Peak Concurrent Users (PCU) accounts broke 2.71 million on August 5, 2012. The web link: http://xyq.163.com/2012/8/5/5114_338093.html.

cooperation, especially when one needs to fulfill a task or to win a competition, but also the necessity of negotiation and interaction with other players. To highlight that, the game provides a lot of specific items for teamwork. For example, ZhenFa (阵法), the Chinese tactical deployment of troops, can provide different kinds of attribution additions such as adding attack or speed, but it can only be used for a group.

In addition to the plot tasks, the game also develops multiple side quests and systems. For instance, the marriage and divorce system, the sworn brotherhood /sisterhood system, as well as the conceiving and raising children system which is learnt from another type of electronic game, namely the Education Game. Apparently, the designers of this game purposely lead the subscribers to pay more attention to the interaction and cooperation with other players than on the story line, as console video games used to do. In short, negotiating with the rules of the game is what makes play possible, while negotiation with other players is the source of joy, success and fulfillment from the game.

As an adaptation of the novel *Journey to the West*, the game also shows how deep the distinction between the emphasis in a novel and in a game is. That is, a novel emphasizes narrative, while an MMORPG puts much more stress on egotiation, especially communication and interaction between multi-players. Instead of closely following the plot of the novel, the game only adapts the story line into the text background and sets some plots as tasks. Some splendid and well-known plots are removed, for example the Monkey King's uproar in Heaven, through which the character's personality and his rebellion against the authorities, fate and politics are established, as well as most of the eighty-one tribulations, which are supposed to be good material for task levels in a console game. Additionally, most of the characters in the novel, such as the Monkey King, the Monk XuanZang, and Zhu BaJie (the Monk Pig), are presented in the game as NPCs (Non Player Characters) from whom a player can get necessary information, trigger a plot, or claim/complete a task. In this sense, modeling the image of a character, which is the emphasis in a novel, is replaced in an MMOPRG by leaving room for a player's individual personality and performance through their avatars.

I argue that, as a result, the idea of "role-play" in MMORPG does not mean playing a role or a character in a novel, but playing a personality or fantasy that one wants to show in a context constituted by the story-line borrowed from the original novel. Put another way, for MMORPGs, "role-play" indicates a role set by the players themselves and the performance of the player's "second self" (or multiple selves). On this basis, the artistic imagination in narrative becomes an imagination about who one can be and wants to be, and thus explicitly relates to the process of self-identification. I come back to this in chapter 2.

I now turn to discuss the consequence of this negotiation capability as well as the variety of the criteria and patterns of negotiation. As the above analysis

shows, the capability of negotiation offers the possibility of a subsequent network perspective and raises the issue of identity/ identification in a cyberspace context for future research on games and game playing. Meanwhile, a variety of negotiation patterns predict a shift from a collective perspective to an individual one in this research field. The capacity of negotiation with the rules of the games not only differentiates the avatars and the characters in a novel, but also reveals the potential options for online game studies. One of the options is, as Copier suggests, the network perspective. For Copier, the network perspective is simultaneously an alternative to the concept of "magic circle" and a result of the negotiation capacity. Based on her own experience of playing WOW for several years, Copier argues that WOW "creates a specific context and rule set which is, for instance, negotiated spatially (by a website outside of the game), temporally (by players who are, for instance, adding information to the website while at work) and socially (by players who stop playing WOW, but are still roleplaying through their profiles on ArgentArchives.org)" (Copier, 2009, p.168). She tends to understand role-play as "optional", therefore, "there is a constant negotiation process going on between players regarding the type of game-play and behaviour that is acceptable" (ibid). For instance, in role-play games, if a player decides to role-play an inn keeper, it is only if other players enact the guests. As Vincent Baker, an independent game designer, states that "the essence of role play is negotiating which situations or events can be part of the shared fantasy"(ibid). The capacity of negotiation crosses the "magic circle" and the physical world under the condition that all players have and share a common fantasy, which echoes my assumption stated above that the avatar is a fusion of imagination and cybernetics technology.

To generalize, I argue that the emergence of the avatar leads to two research dimensions: one, in terms of breadth, is the network perspective, and subsequently the network society, as Copiers argues; the other, in terms of depth, foregrounds embodiment theory. The former dimension allows and triggers the issue of identity/identification, but in a new, technology-oriented network society. The latter attracts the research focus to the individual level. Intertwining these two dimensions causes a shift in terms of the identity issue from "our-ness" to "me-ness", thus prioritizing the individual again. I look at this in chapter 2.

The inadequateness of the idea of the "porous membrane", illustrated through the comparison between the game world and the fictive world in a novel, raises the question about the difference between digital online games in which the avatars exist and traditional games without avatars, such as sports and hide-and-seek. The similarity lies in the fact that the player's body is involved and acts during the game playing. The difference lies in another fact that, for those traditional games, there is only one body, namely the player's physical body, and for digital online games, there are three bodies involved. I give a brief

explanation of the "three bodies" perspective in section 2, and Chapter 3 examines it in more.

1.1.3 Feedback Loop: the Basis of the Shift from "Interpretation" to "Performance"

In this subsection, I proceed with the idea of "behaviour" that I raised but did not explicitly examine, in order to explore the third and most important difference between the avatar and characters in a novel. My assumption is that the feedback loop mechanism is the basis of this distinction by offering game players the capability to give real-time feedback through their avatars. Not only does this capability make sure the games continuously work, but also ensures real-time communication between the players, especially the possibility of walking across the "magic circle" to develop a network society. It is worth noting that the feedback loop directly leads to the core idea of the dissertation, which is the perspective of synchronicity. I focus on this issue in chapter 3.

As I previously outlined, by rechecking the term "magic circle" and the alternatives given by a few scholars, I consider "performance" - referring to the behaviour in the context of game playing - as a watershed between the avatar and characters in a novel. The feedback loop is the crucial step towards linking cybernetics technology to mass media, and is the pivotal for blurring the cyber world and the physical world. As Hayles (2010) points out, "not only do computational media continue the cybernetic tradition; arguably, computational media are the principal arenas in which cybernetics and media co-construct each other" (p. 152). I return to the issue of network society and the boundary between the virtual world and the physical world in the next section. This subsection, in order to complete the comparison, looks at the third difference between the avatar and characters in a novel caused by the feedback loop mechanism.

I argue that performance acted by a subject via a body distinguishes the avatar from a character in a novel, and furthermore distinguishes the embodied avatar from the intelligent-oriented interpretation. Specifically, in the case of the avatar, the capability of performance is supported by the feedback loop mechanism.

First of all, following the perspective suggested by M. Copier, I would like to discuss how the more rigorous term of "performance" replaces the concept of "behaviour" in the context of MMORPGs. As an ethnographer, Copier points out that there is a significant change of the researcher's position in MMORPG research. In traditional ethnography, there are three levels in which a researcher can integrate into the culture: as observer, participant-observer, or participant.

However, for MMORPGs, the researcher "has to become a participant in order to play; thus there is no observer position possible." The participant position makes the MMORPG researcher into an operational actor, both in play and in research networks(Copier, 2009, p.163). Copier combines these three levels into one, which she calls an actor, but I would like to term a performer. Her suggestion is based on a core phenomenon: participating and acting in the game playing in order to play and subsequently research. This is very similar to my use of "behaviour".

Copier has found very important characteristic of game playing and game research, which is about the way one deals with and understands the identity of an outsider and insider of the so-called magic circle, regardless of to what degree they participate in the game playing. This integration of the three positions in the context of MMOPRG research is similar to the phenomenon of "behaviour" in game playing. As I previously noted, the distinction between two boundaries, one of which is between the fictive world and the physical world in terms of fictive arts, and the other between the game world and the physical world in terms of game playing, lies in a core idea: behaviour. In the course of online game playing, there are two behaviours based on the feedback loop mechanism: the avatar's behaviour controlled or manipulated by the player, such as fighting, jumping, picking up things; and the player's behaviour of manipulating, such as clicking the mouse. These two behaviours are almost synchronous. Conversely, in the course of reading a novel, there is only one-direction behaviour, namely the reader's reading and interpretation.

Adopting the perspective Copier suggests, I would like to replace "behaviour" with the term "performance". This is not only because the course of game playing is realized by performing as another persona, but also because the term "performance" can link to a broader context in which cultural, aesthetic, technological elements and specific rules are integrated. Moreover, performance is always an embodied action, and is concerned with the issue of identity, categorized by sex, gender, and subject. I will come back to it in chapter4.

Moving on, I would like to focus on the third distinction between the avatar and characters in a novel. In his work on methodological approaches to game analysis, Espen Aarseth (2003) raises a question about the similarities and differences between game analysis and the interpretation of a literary or filmatic work. His answer is that "reading a book or viewing a film does not provide direct feedback, in the sense that our performance is evaluated in real time." This is because "while the interpretation of a literary of filmatic work will require certain analytical skills, the game requires analysis practiced as performance, with direct feedback from the system. This is a dynamic, real-time hermeneutics that lacks a corresponding structure in film or literature" (p. 5). For instance, one's interpretation of a novel or a film, in the form of an essay or research paper, might be evaluated externally by one's peers or

teachers, but "to show that we understand a game, all we have to do is to play it well" (ibid). Here, Aarseth highlights "performance" as a key term in differentiating the avatar from a character in a novel. Due to the feedback loop between the player and their avatar(s), a dynamic, real-time hermeneutics circulation is established. Supported by the capability of receiving feedback in real time, the player can ensure the avatar is "alive" in the game by continuously exploring, negotiating with, and then learning the rules of the games, not to mention communicating with other players. Therefore, as Edward Fredkin points out, "indexed to local subcognitive and noncognitive contexts, 'interpretation' ceases to be solely a high-level process that occurs only in consciousness. Rather, it becomes a multilayered distributed activity in which the "aboutness" consists of establishing a relation between some form of input and a transformed output through context-specific local processes"(Hayles, 2010, p.151).

Additionally, Aarseth uses a very specific word "non-verbal" to describe game playing. He does not pay much attention to it as it can be viewed as another description of performance, but it indicates one significant difference between the avatar and the characters in a novel, or in general, the difference between game playing and narrative. Although K. Hayles(2010) suggests that some scientists insist on "authoriz[ing] computation as the language of nature, displacing the traditional claim of mathematical equations to this role" (p. 152), game playing still occurrs in a performing/acting way rather than "verbal" way.

Pushing the capability of real-time negotiation with rules and other players to the limit shapes network society is shaping while blurring the boundary between the virtual world and the physical world. It is worth noting that not only does the difference between "performance/behaviour" and "interpretation" distinguish the avatar from the characters in a novel, but also precisely points to an embodied avatar on the basis of the extremely disembodied theory of the feedback loop. I revisit the issue of disembodiment/embodiment in chapter 2 in terms of methodology, and in chapter 3 in terms of the concept of the body.

To sum up, the comparison between the avatar and the characters in a novel demonstrates three remarkable characteristics of the avatar, namely the fusion of cybernetic technology and imagination, the capacity of negotiation, and the real-time feedback loop mechanism. These three characteristics constitute a resultant force that empowers the avatar to negotiate with the rules and other players in the game and thus integrate cyberspace and the physical daily world into a new "integrated world", by connecting the avatar body and the player's body. On the other hand, it leads to a new aspect of identity imagination, which I consider in chapter 2.

1.2 The Consequences Brought About by the Emergence of the Avatar

This section, departing from the comparison and analysis I made in the last section, explores both the consequences and potentials of the emergence of the avatar. As I have analyzed, cybernetics technology, its inherent feedback loop and the negotiation capability distinguish the avatar from characters in a novel and other traditional simulacra. Additionally, they also bring about consequences and raise new possibilities for the future research.

I would like to reiterate that I do not mean to place imagination in opposition to technology. Instead, I understand it as an essential element cooperating with cybernetic technology and making a contribution to those consequences together. Meanwhile, imagination per se has changed, with a shift from a means of artistic creation to a method of identification (see 1.1.2).

I argue that there are two dimensions of changes caused by the emergence of the avatar and the virtual world. One is the network perspective, referring to a broad and macrocosmic dimension, and the other is the embodiment perspective referring to a more microcosmic dimension. The intersection and pivotal of both dimensions is the body.

This section looks at three aspects of consequences of the emergence of the avatar that intertwine with and are interdependent of each other. One aspect is a shift from boundary-crossing to boundary-blurring. Under the condition that imagination and cybernetics work together, the shared fantasy and imagination is realized and represented as a vivid “virtual reality”, which blurs the distinction between the game world and the physical world, and then changes the way in which one conceives reality. Furthermore, on the basis of the feedback loop, social relations are transplanted into the game world, which pushes the boundary-blurring a stage further. The second aspect is that on the basis of simulating social relationship and communication in the physical world, and blurring the boundary between the game world and the daily life world, a network society is formed which is continually shaping and transforming. This new perspective blurs the boundary of the virtual world and the real world further, so rethinking the definition of “real” is necessary. The third aspect is that with the rapid development of mass media, as some scholars point out, the body has become a medium. This is indeed the case for online games.

Thus, in online games, on the one hand, the body has been recovered and acts as a pivot and a source from which the boundary between the virtual world and the real world blurs. The body is the most significant situated source of knowledge, and is simultaneously the medium of representation and the meaning per se. Meaning is conveyed through and is for the body. On the other hand, computer-oriented communication based on the feedback loop makes the avatar the perfect and highest level simulacrum of dynamic human life. The

tension between these two tendencies, namely the recovery of the body and the disembodied technology, implies a very rich potential for a research exploration.

1.2.1 From "Boundary-Crossing" to "Boundary-Blurring"

No matter whether or not there is a so-called "magic circle", a boundary between the game world and the daily life world does exist and has been studies by many academics. The existence of this boundary leads to a tendency of rethinking and redefining what real is, which I come back in chapter 2. This subsection focuses on a direct consequence of the emergence of the avatar that I would like to name "the integrated world". It is related to the "boundary" issue and leads to a re-definition of the environment for both the avatar and the player.

I argue that, due to the enhancement of digital gaming and digital communication, the way in which players deal with the boundary between the game world and the daily life world has shifted from "boundary-crossing" to "boundary-blurring", and even further, "boundary-erasing". The possibility of developing inter-personal relationships is the key reason for this shift. However the players do not make a definitive change from a "boundary-crosser" into a "boundary-blurrer". The dissonance between the way in which people work through the boundary and the identity they choose to hold reveals another significant shift within the issue of identity/identification. As Manuel Castells (2010) points out, identity is becoming "the main, and sometimes the only, source of meaning in a historical period characterized by widespread deconstructing of organizations, delegitimation of institutions." In the meantime, "people increasingly organize their meaning not around what they do but on the basis of what they are, or believe they are" (p. 3).

In the first step, I pay attention to the premise and basis of this shift. As I previously argued, cybernetic technology, especially its inherent real-time feedback function, turns the shared fantasies and imagination into vividly visible "realities", in particular, within the MMORPGs. That is a so-called virtual reality (VR). The players can enter it, use it, feel it, play in it, and even create it, although they cannot touch it. Due to the similarities between the game world and the real, there is a possibility and inevitability for a player in this virtually simulation-oriented world to develop and form interpersonal relationships with other players' avatars. Earlier research shows that an affinity for the Internet is positively related to using the Internet for interpersonal-related motives (Papacharissi& Rubin, 2002; Anderson, 2005).

I would like to highlight that this possibility and necessity of developing interpersonal relationships is the most significant in terms of juxtaposing and integrating these two worlds, which leads to the shift from boundary-crossing to boundary-blurring. It is also the most significant simulation through which the avatar becomes the simulacrum of a dynamic human life, as although the avatar does not need to physically eat or drink, it needs some virtual items set by the game rules, in order to make a "living". When the shared fantasies "come true", a shared "new world" forms. For the players, this world is in some sense real, because, as T. Anderson (2005) points out, if they do not believe that their experiences in-game can be real, then their relationships are merely still fantasies. Therefore, different players have their own specific understanding of real/reality and the boundary between the game world and the real world.

In their work on online romantic relationships, Kin-Phong Huynh et al. (2013) divide their interviewees into three categories according to their differentiated construal of the game/real world boundary, which can be seen as evidence of the dissonance. According to the resarchers, these three categories are: (1) splitters who draw a clear line between these two worlds, and try to keep virtual relationships in the virtual world and face-to-face relationships in the real world; (2) migrators who try to step out of the "magic circle" and translate the game-mediated relationship into reality; and (3) blenders for whom the boundary between game and life does not exist, and therefore, "the game world merely serves as another platform for meeting-up". The research shows that not only does the boundary between the game world and the real world exist, but the possibility of crossing or, even further, erasing this boundary also exists. No matter what identity the players hold, their behaviour of game playing does blur the boundary, or, at least, juxtaposes and links their online experience to their daily life world. For example, their online playing experience made them potential interviewees for that research project.

Additionally, the avatar, as a simulacrum of human life, which is simultaneously manipulated by the player and acting on the screen, blurs these two worlds. It makes the virtual worlds so "real", and even integrates them into a new entity. As Edward Castronova (2006) claims, in the game world, or what her terms "the synthetic world", even the physical environment is entirely crafted and can be anything one wants it to be. The human social environment that emerges within that physical environment is no different from any other human social environment, such as trade, love, governance and conflict. As a result, this "part of human life taking place in synthetic worlds will have an effect everywhere." (p.7) One of Castronova's findings is the economic transaction between these two worlds. For example, a player could work in the game *EverQuest* and earn 300 platinum pieces (the currency of *EverQuest*) per hour, and convert that into roughly US$3.50 by selling it online. His statement about the indifference of social environment in these two worlds is slightly simplified and optimistic, but he successfully links the synthetic world to the

real world, and further, points out the possibility of blurring and even integration. This blurring can cause problems, such as the Internet Addiction Disorder, but also is also heralds the coming of a new era.

I would like to raise a concept of "integrated world" on the basis of the term "synthetic world" that Castronova coins. Castronova uses the term to emphasize that the game world is crafted and man-made in nature, but it also reveals another dimension to think about the consequence for the world one inhabits in the information age, in particular, under the boundary-blurring condition. The world is not now merely a physical world anymore, but it has become an integrated world fusing the traditional physical world and the virtual world crafted by Internet technology, as well as other worlds or spaces established by new technological means. Therefore, I argue that this new integrated world covers and replaces the existing one, and so fundamentally changes the way in which people think about the world both literally and metaphysically.

1.2.2 The Network Society

This subsection deals with the second consequence caused by the emergence of the avatar: the rise of the network society and the network perspective. The new integrated world is becoming a multilayered network society, since the boundary between the virtual world and the real world is blurring and the interpersonal relationships are forming simultaneously in the game world and in the real world.

I argue that the network society is not just an alternative or an option one can choose from, but an inevitability in terms of both the social phenomenon and a thinking perspective. As a perspective, the 'network' society not only shows its potential and capability of organizing and integrating diverse elements into an increasingly complicated and multilayered environment, but also raises the necessity of identity/identification. The latter issue is discussed in Chapter 2, but here I focus on introducing the "network" perspective borrowed from Castells (2010) and deployed by Copier (2009) in her studies on digital games.

Castells points out that, from the late 1960s onwards, a shift from hierarchies to networks in all sections of society has happened across the globe thanks to three interdependent processes: (1) the information technology revolution; (2) the economic crisis of both capitalism and statism, and (3) the development of cultural and social movements(Castells, 1996, 1997, 1998). Castells generally focuses on macro-political, economic and cultural transformation, and so, online networks of play are also included in this big picture. Copier, departing from her own ethnographic study of role-playing games through which she

finds herself "negotiating the spatial, temporal and social dimensions of the game play experience", adopts Castells's network theory as an alternative to the "magic circle", and further, as a perspective to "understand the ambiguous qualities of online role-playing games", and "to map how every game and game experience is negotiated spatially, temporally and socially" (2009, p.168). Copier stresses the capability of negotiation and considers it as a potential force engaged in the process of constructing and reconstructing roles and frames of the online games. "Through MMORPG play, pre-existing roles and frames are negotiated and (re)constructed, while at the same time, new roles and frames are being constructed" (p. 169).

While Copier emphasizes the capability of negotiation in game-playing, I would like to add the capability of forming and developing an interpersonal relationship in the virtual game world, by highlighting the importance of the embodied player and his/her ability to form an interpersonal relationship. As I analyzed in section 1, one of the most fundamental differences between the avatar and characters in a novel is the capability of giving real-time feedback. This is what interpersonal relationships in the virtual game world are based on. The capability of negotiation is not the exclusive characteristic of game playing, since negotiation with rules and disciplines is also happening in the course of reading and interpreting a novel. For example, when one is reading an absurdist novel, one must adapt to the rules set by the author, no matter how ridiculous they might be, in order to understand and then interpret the story. This can also be seen as a process of negotiation, although in literature critical theory it is always called interpretation. In this sense, I argue that the capability of negotiation between an embodied player and others, which refers to other players and their avatars in the case of online game playing, is both the most distinct characteristic of online game playing and communication, and the source of a possible integration of the virtual world and the real world into a new one. Logically, therefore, the network perspective is not just an alternative or option one can choose from, but an inevitable necessity as a result of the emergence of the information age, and of course, the emergence of online game playing.

Patricia Pisters's book, *The Neuro-Image: A Deleuzian Film-Philosophy of Digital Screen Culture*, from her unique research focus on screens, follows Deleuze's film theory, especially his argument that "the brain is the screen", to explore the neuro-image's relation to the digital. Along with the other two elements, which are deep remixability and database logic, "networked software cultures" is labeled as one of the most influential elements of digital culture that is important for framing her analysis of the neuro-image (Pisters, 2012, p.8). Pisters builds the connection between screens and the networked digital culture via software, in a way she calls "softwarized". Screens, including television screens, surveillance cameras, cameras on mobile phones, laptops, and other portable devices, are more and more linked to all kinds of software, and are connected in vast distributed networks. Pisters points out that social

software "has transformed the cultural logics of the Internet itself from a hypertext environment of interactive applications into a 'participatory culture' populated by so-called prosumers (active content-producing consumers)" (p.10).

I would also like to highlight the significance of the shift, as Castells points out, from hierarchies to networks. This shift does not necessarily mean a tendency of planarity, or an abolishment of meaning. Instead, as a result of communication, the network society makes things unfixed and flexible, in a process of deconstructing and reconstructing. Castells (2010) argues that interactive computer networks are growing exponentially, creating new forms and channels of communication, shaping life and being shaped by life at the same time (p. 2). Copier (2009) echoes his argument by claiming that, in online game playing, roles and frames are continuously negotiated and (re)constructed (p. 169).

A network is also a method to link the virtual game world to the real world. I understand the concept of "network" as multi-layered and nodal. As Alexander Galloway describes it, a network is "a set of nodes and edges, dots and lines. The dots may be computers (server, client, or both), human users, communities, LANs, corporations, even countries. The lines can be any practices, action, or event effectuated by the dots (downloading, emailing, connecting, encrypting, buying, logging on, port scanning)." According to Galloway, "the Internet is not simply 'open' or 'closed'", networked systems are neither open nor closed. Rather, networked systems are not limitless but work increasingly as complex diagrammatics (Pisters, 2012, p.9,10). Due to modern information technology, especially the Internet, everyone is simultaneously one part of some networks and a pivot of specific networks. For instance, in the online game WOW, a player has to choose to be a member of Horde or Alliance, sometimes according to the player's personal hobbies and existing experience, and sometimes because of the suggestions or demands of their friends or other players. Moreover, as a simulacrum of human life, the emergence of the avatar opens up a new network within which the player is concerned with the different splits of the self, namely the self-imagination projected on the avatar and the real self the player has developed.

Therefore, there are different overlapping networks. One is at the centre of and pivotal to the networks developed by oneself, and a member of other surrounding networks that have been created by other people. In other words, in addition to social-cultural, political-economic networks, there are numerous temporary, unexpected connections that players develop in online game playing. Thus, in this sense, hierarchy does break down. Instead, as Castells points out, a more complicated and multi-layered, nodal networks society is shaping and being shaped by one's daily communication, within which indefinite potentials and possibilities are lurking, abounding with temporariness and uncertainty. I argue that this new nodal and multi-layered, unfixed, and dynamic networks

society is the perfect residence and source of Deleuzian "rhizomatic" subject. This is explored in chapter 3.

1.2.3 Has the Medium Become the Body?

This subsection works on the third consequence caused by the emergence of the avatar and the cyber world, which is the shift that has teken place in the notion and the role of the body. This issue is not only caused by the advent of cyberspace and the avatar, but also is concerned with the very significant debate about the opposition of embodiment and disembodiment, as well as a rethinking of the relationship between the body and the brain.

Pisters (2012) views the body and the brain as two sources from which different art works, in her case, films 'derive their power.' In this sense, the body and the brain are two directions, "each one being equally emotional and thoughtful" (p.61). Thus, Pisters does not set the body and the brain opposite to each other. Rather, "the brain gives orders to the body, which is just an outgrowth of it, but the body also gives orders to the brain, which is just a part of it: in both cases, these will not be the same bodily attitudes nor the same cerebral gest"(Deleuze, 1989, p.205). Then, Pisters raises a question: if the source of their filmmaking is so different - for example, one is from the brain, the other is from the body - where or how those filmmakers meet? The approach they take is to embrace the "basic sense of ambiguity about the nature of behavior, about the nature of reality, about the possibilities of knowing where exactly we are in the world". "Nothing is crystal clear" (Pisters, 2012, p.63). The ambiguity of reality brings those filmmakers together and brings the brain and the body together, because the ambiguity is precisely hidden in "either the body or the brain" (ibid).

Following Deleuzian film philosophy, thus, Pisters argues that, in digital culture, both "body" and "brain" need to connect to others, just like that "love streams (in bodies and brains) and data streams (in our contemporary machines) are looking for connections in seemingly random, unpredictable delirious ways" (p.67). Simply put, for Pisters, the brain and the body are inter-embodied within the ambiguity of reality, something called "love" or "life force". I employ her theory as an inspirationally theoretical resource, but while she focuses on the brain-screen to explore the concept of neruo-image, I focus on the body-embodiment to figure out what changes the seemingly disembodied digital technology brings about in human life.

The opposition between embodiment and disembodiment is considered as an "impasse" (Wegenstein, 2006; Hansen, 2006b), bequeathed by some pioneer scholars such as Katherine Hayles, or more generally, by the opposition of

human and technology/science. Due to the development of communication technology and medical technique since the late 20th century, it seems that technology has pushed the disembodiment principle to the limit by "translating the world into a problem of coding" (Haraway, 199, p.164).

On the contrary, based on my previous analysis, I argue that whilst modern technology has pushed disembodiment thought to the limit, especially through the cybernetic technology and artificial intelligence, at the extreme of disembodiment, embodiment is recovered. I deal with this question in chapter 2, but in this subsection, I focus on the question regarding the role of the body that is being foregrounded again in this digital-oriented era. As Mike Featherstone and Goger Burrows (1995) claim, the late 20th-centrury second media age "is not just the possible reconstitution of social life and forms of cultural identity", but "it is the impact of these changes on the body" (p. 2).

Firstly, to analyze the new situation the avatar and the cyber users confront, I briefly introduce a new concept of "gaming body"[①]. This concept is derived from the film theory of Vivian Sobchack who, based on a phenomenological perspective, considers the film as an "object-subject" that sees and is seen, both a "viewing subject" and a "visible object". The body uses modes of "embodied experience" as the vehicle of its language: "an act of seeing that makes itself seen, an act of hearing that makes itself heard, an act of physical and reflective movement that makes itself reflexively felt and understood" (Sobchack, 1992, p.3-4). The concept of "gaming body", coined on the basis of her theory, refers to the invisible body that is "the software-simulated mobile camera that follows (or inhabits) a game character in a virtual world serves double duty as the perceptive organ," which is situated within the game narrative (Crick, 2010).

Applying this theory to the research on the virtual body, e.g. the avatar, one can find the similarities between them. On the one hand, the research on video gaming shows that in some first-person shooting games, e.g. Counter-Strike, the player always unconsciously moves their physical bodies with the movement of their avatars in order to keep a consistent pace. The same thing is demonstrated by research into virtual reality. Furthermore, some games e.g. Simulated Flight, are used by the military in the training of pilots. In this sense, the avatar acts as an extension of the corporeal body on the screen. On the other hand, in some third-person games, e.g. WOW, the avatar is the eye of both the game body and the player, and is the vehicle of the empirical subject and personality of the player. The avatar is simultaneously acting as the vehicle of the control from the player and the subject of the perspective of the gaming body. Therefore, the body is simultaneously the controller and the controlled and can be seen as an embodied central pivotal and a mediation site linking the corporeal body in the real world to the game body in cyberspace.

[①] This concept is fully discussed in chapter 3.

To sum up, there are three bodies involved in the process of playing an avatar: (1) the player's physical body sitting in front of the computer; (2) the digitalized avatar body acting on the screen; and (3) the temporary "gaming body" that only exists during the course of game playing. All these three bodies are embodied in a single player, and are the force and possibility of forming a newly integrated world. It suggests that the gaming body is acting as a mediating body, linking the physical body to the digital body and making them work together. Its capability of mediation comes from the three co-operative and co-existing bodies that are embodied and personified into one player. The "three bodies" theory also suggests that these three bodies are separated and inhabiting different spaces. In addition to Haraway's statement that "we are responsible to boundaries; we are they" (1991, p.180), I argue that boundaries are within one and simultaneously separating and reconnecting the self from inside. This leads to a series of changes happening to all categories, such as race, sex, gender, subject, and identity. It echoes the partiality, and the situated perspective Haraway (1991) develops and claims.

Secondly, following this "three bodies" perspective, I would like to rethink Wegenstein's body-medium theory. Departing from my analysis of the feedback loop mechanism in the first section, not only does this mechanism provide the basis of the distinctive shift from "interpretation" in book reading to "performance" in online game playing, but also acts as the vital step towards linking cybernetics technology to mass media. Some scholars go further to consider the body as a medium, just like Bernadette Wegenstein(2006) does, which, according to Katherine Hayles, is "a thoroughly cybernetic move" (2010, p.153).

Here, I give a quick introduction to Wegenstein's book, *Getting Under the Skin: Body and Media Theory*, in order to outline a more substantial background of her theory. In this book, Wegenstein proposes to "reconfigure the discipline of body criticism into one of new media criticism". She argues that "the medium and questions around mediation have literally taken over the space and place of the individual body… [and] the body … has emerged in place of … the very mediation that once represented it for us. The medium, in other words, has become the body" (2006, p.121). As Jody Shipka (2007) summarizes, Wegenstein makes two statements in this book. Firstly, Wegenstein claims that the history of the body-in-pieces is the history of the struggle between fragmented and holistic concepts of the body. "There can be no history of the body that is not at the same time a study of the various media that constitute embodiment as such" (Wegenstein, 2006, p.35-36). Secondly, she claims that while the body has the capacity to disappear, embodiment – defined here as the experience of being-in-the-world and of thought, and regarded as a form of articulation that is inherently performative – does not (Shipka, 2007, p.863).

Regarding the first claim, Wegenstein makes it by tracing "instances where interior and exterior, the virtual and the real, merge" (Shipka, 2007, p.865), and

her appreciation for the stages in the history of the body as a history of mediation is "uniquely informed by the digital revolution" (Hansen, 2006b). Similarly, Hayles mentions the potential connection between humans and computers, which can be seen as a broader context for Wegenstein's argument. Due to the feedback loop between humans and computers that "continue[s] to reconfigure social, economic, and technological conditions for people around the world", the idea of the feedback loop joins with a quantitative definition of information, and as a result, makes a contribution to the ubiquitousness of the modern media (Hayles, 2010, p.152). Wegenstein ties her thinking of partiality/ holism - or in other words, body parts and the body - to medium/mediation. By focusing on media arts and digital architecture, the mediation/mediality Wegenstein emphasizes takes place between the body and its parts, so between partiality and holism. A fragmented body that benefits from digital technology does not assume a unified subject that achieves its "wholeness" only through the interrelation of the various body parts. The holism in question is the one that authorizes every bit of the fragmented body to take over the body as a whole, to serve as an interface. Furthermore, Wegenstein points out that the body and all of its organs no longer simply serve as a medium of expression, but rather, "the body and its parts themselves have adopted the characteristics of a medium, wherein lies the return to a holistic body concepts" (Wegenstein, 2006, p.161,162).

This "return to a holistic body concept" is similar to my observation with regard to the body concept. I understand the body as an assemblage. (I elaborate on in chapter 3). The difference between Wegenstein's theory and my point of view lies in the understanding of the form of "element" constituting the holism or an assemblage. She sees the elements as parts, while I see them as layers with arbitrary dimensions. The major reason for this difference is that we study different objects. Wegenstein considers new media arts and architectural practices, while I look at the avatar in terms of identity and means of identification.

I suggest that, if it is true that the body has already become a holistic or assemblage concept, those fragments of the body can exist either as parts or layers, in different conditions and environments. This new body is a more open concept than ever, on the other hand, therefore, the perspective of "gaming body" does highlight the embodiment theory as a fundamental principle in research on digital and cyber culture. I continue the concept of the body in chapter 3.

Chapter 2 RE…ING:

The Epistemological Recovery of Embodiment Theory and Its Influence on Identification in An Integrated World

2.0 Introduction

In chapter 1, I outlined the three remarkable characteristics of the avatar and then depicted the background of the dissertation. By firstly elaborating remarkable characteristics of the avatar, I discussed how the avatar is a new type of simulacrum, distinct from other traditional simulacra, and looked at the consequences and changes brought about by the emergence of the avatar. I explored how two key terms - imagination and technology, worked together and developed three significant changes that corresponded to those characteristics. These changes are: (1) the boundary between the physical world and virtual world becoming blurred; (2) the rise of a network-oriented society, and (3) medium becoming the body (see section1.2). Therefore, I claim that all those three changes lead to subsequent changes in terms of epistemology. As Anne Balsamo (1996) points out, "what is becoming increasingly clear in encounters with virtual reality applications is that visualization technologies no longer simply mimic or represent reality – they virtually recreate it. But the difference between the reality constructed in VR worlds and the reality constructed in the everyday worlds is a matter of epistemology, not ontology" (p. 125).

With respect to the epistemological changes triggered by the emergence of cyberspace and the avatar, I would like to summarize them as "RE…ING". I adopt this coined word as the title of this chapter for two reasons. "RE", in general, depicts the tendency of all academic attempts by which scholars try to rethink, reflect, and redefine concepts, perspectives and thinking patterns that have been used to produce knowledge. It also encompasses the need and premise of being situated, of confirming a standpoint from which the activities of "RE" take off. "ING" indicates the action researchers are carrying on. Assembling "RE" with "ING" together suggests the nature of the former "RE" as a process that all these attempts are ongoing and in which the process of "RE" and "ING" are too complicatedly intertwined to distinguish one from the other. The latter implication echoes the Daoist perspective I would like to refer to in this chapter by constituting a circle of life and energy. This assemblage can also be applied to the process of the new identity establishment in cyberspace. Generally speaking, this "RE…ING" pattern can be applied to the whole intellectual history, but, I would like to stress, it has been intensified and

accelerated in this information era, especially by the advent of a technological flourish.

In this chapter, I on the one hand explore how the cooperation of technology development and imagination urges the way in which one identifies oneself to be updated, and what these epistemological changes triggered by the emergence of cyberspace and the avatar are. On the other hand, departing from the updated perspective, I demonstrate how imagination links to the players' imaginary identity in the technology-oriented era. This chapter functions as simultaneously a semi-conclusion to what has been outlined in chapter1, and as a starting point and theoretical basis of the following chapters.

The first section looks at the recovery of the embodiment principle in the extremely disembodied environments, namely digital and imaging technologies, as well as the social and cultural contexts oriented by them. By distinguishing from the materialism and materiality approach, I clarify and emphasize that my research approach is an embodiment-orientation, by which the body is considered as a site that cannot be separated from the exploration of the relationship between human, machine and/or technology. To underpin and develop this approach further in terms of epistemology, the Daoist perspective is introduced into the following discussion on the relationship between disembodiment and embodiment, technology and human, and in general the new way in which one deals with boundaries.

The second section deals with the question that concerns rethinking and redefining the real in the integrating world where people live. This question can be understood as an accompaniment to the theme of the last section, as a specifically and meaningful boundary between the real and non-real. By tracing back to the concept of the "magic circle" (see section1.1.2) in the research field of game studies, and analysing Baudrillard's theory of hyperreal and the real, I attempt to show that, in the case of the avatar, the understanding of "what is real" has come to be more individual-imagining-oriented. Additionally, the embodiment theory as a fundamental principle intensifies this orientation, because embodiment, in some sense implies an individual-orientation. As a result, the "real" is also becoming a process, in which every individual has their own definition of the real and revises it in the course of identity shaping and encountering with other people in different environments.

The third section works on the relevance between the avatar and identity/identification in cyberspace, followed by a discussion about how and what influence the emergence of the avatar brings to the way one identifies oneself. As I will prove, the simulacrum nature of the avatar and the issue of identity/identification are connected, but, since the real has become the hyperreal, the faculty of imagination has developed and flourished into another dimension pointing towards identity-imagining, which I mentioned in chapter 1 after comparing the novel *Journey to the West* and its adaptation in an

MMORPG. By referring to Bottici's theory where she distinguishes imaginary from imagination, and the Lacanian "mirror stage" theory, along with the embodiment principle, I argue that there is no purely independently online or offline identity. Instead, there is only a multi-layered identity that is continuously shaped and transformed by the online and offline facets. Accordingly, in light of the dynamic and the individual-orientation in the process of identification, a shift from "our-ness" to "me-ness" is taking place.

2.1 Recovery of the Embodiment Principle

On the basis of the previous elaboration regarding the characteristics of the avatar and the significant changes triggered by its emergence in chapter 1, this section focuses on the chain reactions in terms of epistemology. It is noteworthy that the development of cybernetics itself suggests the transformation of epistemology, as N. K. Hayles points out, especially in the framework of contemporary thoughts about boundaries and positions. In this sense, it is justified to say that, in a contemporary context, technology has become one irreplaceable dimension that has changed, and is continuing to change the ongoing thoughts and epistemology.

In the first subsection, I deal with the issue of the body and the embodiment principle striking back by tracing the origin of the word "avatar" and the three developing phrases of cybernetics per se, along with reference to and analysis of the Human Visible Project (HVP). My assumption is that, though modern technology, digital techniques, and artificial intelligence in particular, have appeared to push disembodiment thought to the limit, embodiment is recovered at the extreme of disembodiment. Not only do the return of the body and an emphasis on the embodiment principle act as a concealed core concept and finally recovered from established theories, but also as an infrastructural variation towards the future.

In the second subsection, I clarify my research approach, namely the embodiment principle and perspective, by distinguishing it from materialism/materiality. It suggests that, in my argument, the body is always taken into account as a pivotal and a contextual resource. Even though materialism will be discussed below, I do not intend to separate every category concerned with the body, nor focus on the issue of it is material or not.

The third subsection introduces a typical Chinese Daoist perspective to rethink the relationship between embodiment and disembodiment, and furthermore, expands this perspective to a more general issue of how to understand boundaries. To attain it, I choose to start with a so-called "impasse" between embodiment and disembodiment, and then raise my own point by deconstructing this kind of "impasse" caused by binary opposition thinking.

2.1.1 The Return of the Body: An Embodied Interpretation of the Avatar[①] Metaphor

In this subsection, on the basis of the previous argument and especially a brief of the "three bodies" theory, I explore the role of the body in the information era.

This subsection will unfold in two phases. In the first phase, I trace back to the root of the word "Avatar" and the three orders in the development of cybernetics, to reveal that in both metaphor and code context, the role of the body always exists but is concealed. In the second phase, in order to recover the body from historical cover, I focus on the phenomenon that the human body can be presented in another form, namely the digital form. To describe this new possibility, I raise the idea of the "existing form" of the body to carry on my argument. The Visible Human Project (VHP) will be analyzed as an example. This phenomenon undermines the fundamentals of most existing theories by highlighting a fact that has been ignored and concealed for many centuries, which is that the body existed and only existed as flesh until the digital information age arrived. When the digital existing form of the body emerged, that fact was recovered and so needs to be re-thought and re-defined. Accordingly, when the other existing form of the body emerges, the concept of the body returns to the stage of theoretical reconstruction.

Both of these two steps lead to my conclusion that the body has returned, not only as a core concept that has been concealed and finally recovered from the established theories, but also as an infrastructural variation towards the future.

Looking back to the origin of the word "Avatar", it can be seen as a metaphor for the perspective of embodiment. Being a metaphor means that it is vague and abounds with details and stories, therefore, sometimes causing misunderstandings. As I summarized in chapter 1 (see section1.1), the word "Avatar", derived from Sanskrit, refers to the descent of divinity from Heaven to Earth, and is typically used to describe an incarnation of God. Yogananda notes that an Avatar "is born not to show us how great he was, but to give us hope that the state of consciousness he had attained, we too can attain."[②] Put simply, the Avatar denotes an incarnation or the process of physical embodiment of the divine or the God. In this sense, the origin of the word "Avatar" is religion-related, and, in terms of methodology, is typical Platonist by separating Idea/Soul from the body/earthliness and prioritizing the former.

[①] In accordance with the distinction in chapter 1, the word "Avatar" with a capital letter refers to the original usage in terms of Sanskrit, while the word 'avatar' refers to the digital characters in cyberspace.

[②] http://www.ananda.org/glossary/avatar/

Accordingly, it seems that the avatar utilized to designate the representative of user/player in cyberspace can be viewed as perfect evidence of the tradition of the mind/body dichotomy. Even further, the avatar per se can also seemingly be viewed as a "perfect" example, thus pushing the mind/body binary opposition to the extreme. Indeed, some scholars, in particular scientists, do follow this perspective. Edward Fredkin, one such scientist, makes the radical claim that "the universe is a giant computer", which is "ceaselessly generating physical reality by means of computational processes that it both embodies and is" (Hayles, 2010, p.150).

I do not intend to delve deeper into the religious meaning or origin of the Avatar. What I am interested in is the process, or the sequence of the incarnation, as well as the role of the body during the process. For Platonist philosophy, which aims at transcendence, the process is anti-incarnation, from the body to the mind, spirit, and then the God. But for the Avatar, the sequence is from the God or divine to the physical body. This descendant sequence instead of transcendence marks the importance of the body, because incarnation cannot be realized without a body, but this has been ignored for so many centuries. More significant is the pattern hidden in the process of an Avatar's realization, a metaphor of the relationship between the body and life. The process of incarnation is precisely a process of embodiment, the starting point of life. In this sense, the origin of the word Avatar can also be viewed as the origin of embodiment. It does suggest that a physical human body for an Avatar, just like the player's body in flesh for the avatar in cyberspace, is the pivot and fundament of human life.

The radical faith in technology and its power to codify the universe hole by some scientists, as I quoted above, makes the following review of the development of cybernetics theory rather necessary. The review will illustrate the "struggle", as termed by Hayles (2010), between "the simplifications necessary to yield reliable quantitative results and more complex views that yield richer models but thwart robust quantification" (p.147). As Hayles summarizes, there were three diachronic major phases and two conflicting mainstreams during the development of cybernetics science. Early cybernetic theory was premised on the "decontextualization of information", which is "a crucial move in conceptualizing it (information) as a disembodied flow that can move between different substrates and different kinds of embodiment" (p.146). This move can be understood as an attempt to codify the universe. This perspective was challenged by researchers, who cautioned that embodiment and context are crucial factors which cannot be ignored. Finally, the disembodiment school succeeded, because the challengers' approach was intractable for the exact quantification.

The "struggle" summarized above also runs through these three phases. In the period from 1943 to 1960, called first-order cybernetics, organisms/mechanism was theorized as an entity separated from the environment in which it was

embedded. Second-order cybernetics referring to the period from 1960 to 1985, was characterized by bringing the observer inside the system, rather than assuming an external (and largely unnoticed) observer. Third-order cybernetics can be understood as virtuality. Hayles concludes that, "first-order cybernetics was concerned with the flow of information in a system, and second-order cybernetics with interactions between the observer and the system, third-order cybernetics is concerned with how the observer is constructed within social and linguistic environment" (ibid, p.149). Put another way, these three phases can be considered as a development of the relationship between the system and observer, a struggle between disembodiment and embodiment. The role of the observer is the key point within these three phases, and is becoming much more important to the theory of cybernetics. The history of cybernetics theory suggests that the struggle between disembodiment and embodiment always exists within the theory development process, as a human being and the human body are always taken into account in the development of technology. It also implies that, in most cases, disembodiment thinking always prevails within the domain of science.

In the second step, after reviewing the role of the body in both metaphorical and technical context, I turn to the fundamental changes happening to the body in both contexts. The role of the body was concealed behind the body/mind dichotomy until the late twentieth century. One fundamental change is that the possibility of turning flesh to data and data to flesh has been realized in the research field of medical science. I would like to take the Visible Human Project (VHP) as an example to demonstrate what the change is and what new possibilities technology has brought about. As a participant of the project, Catherine Waldby (2000) summarizes that, by taking advantage of super-computers to process large quantities of rich visual data, and making these representations available on the Internet, the VHP creates complete, anatomically detailed, three-dimensional representations of the male and female human body. It enables the creation of a three-dimensional "recording" of actual human bodies whose depth and volume can be manipulated in the field of the computer screen (p.25). It suggests that, through a computer, the digital body constructed by data can be constantly re-stacked at will. One commentator's description of the re-stacking capability of these digital corpses, quoted by Waldby, shows how amazing these digital bodies are and how impressed every player feels about them. "The… data set allows [the body] to be taken apart and put back together. Organs can be isolated, dissected, orbited; sheets of muscle and layers of fat and skin can lift away; and bone structures can offer landmarks for a new kind of leisurely touring" (p. 25).

Significantly, these digital bodies have the capability that no physical body has, while the way they are restacked is impossible for any physical human body. It makes the exploration and learning through the digital corpses "leisurely touring". Every player knows that these two digital bodies, one male and one female, are not human bodies in the flesh, but everyone also knows that they

are derived from physical human bodies and they can be used as standard samples for human beings.

Hereby, I would like to raise the concept of the "existing form" of the body to describe the new situation and possibilities that the body confronts, due to the above-mentioned speciosity between the physical human body and these two digital bodies. This concept is not necessary until the physical human body is vividly presented on the screen. When that player is excited about being capable of witnessing and manipulating a digital body at will, and when the ambiguity and doubt about how to define these two digital images emerges, the traditional body definition is challenged. The body as touchable flesh is not enough to explain the doubt. Rather, viewing the physical and flesh as one of the existing forms of the body, and the digital as another, is the first step. I come back to the question of whether these two VHP products are bodies or not in chapter 3.

Waldby describes these two digital bodies as a "virtual clone of the body" whereby effectively rendering the human body, or more precisely the appearance of the body, into digital information, decomposing the body's fleshy complexity into the simple on/off logic of binary code. As a result, it verifies the assumption that "many of new techno-bodily economies have developed out of the late twentieth century's conceptualization of the body as an effect of codes, flesh specified through/as information" (p. 24).

It is worth noting that Waldby's focus is precisely on the relationship and the possibility of mutual transformation between the flesh and data, between the human body and binary code/information, and in general between embodiment and disembodiment. Her attempt can be seen as a supplement to Hayles's claim that the history of cybernetics can be understood as a struggle between the simplifications for quantitative results and the complexity thwarting robust quantification. Through her research on the VHP, Waldby pushes the role of observer within Hayles's scientific context further to the role of human body, and intensifies the struggle by setting the human body as the research subject. In the meantime, the VHP expands the research field from the cybernetics theory domain to the internet-oriented world including countless audiences and users. In other words, the VHP does put the human body under the spotlight, and attempts to explore the new possibilities opened by digital technology.

I tend to view their attempt as a call for the return of the body under a disembodiment-dominant environment. In addition to celebrating new potentials in the future, I am inclined to put this scientific breakthrough within a broader context, and have a look at the past, especially at the infrastructure of theoretical establishment.

I argue that the emergence of digital existing form of the body is significant and subversive to the whole theoretical structure. As a "virtual clone of the

body", the VHP shows a new possibility for the way in which the human body can exist, namely the digital form.

Firstly, the achievement of the VHP is to discover and vividly illustratethe new existing form of the body, which undermines the foundation of previous theories in two ways. On the one hand, it reveals that most of the previous theories are based on the fact that the human body exists and can only exist as flesh. In other words, the emergence of the digital existing form of the body reveals and stresses that all theories concerned with human beings are built on the physical nature of the body, and reminds one of this fact that has been ignored for so long. In this sense, the ONE (or ONLY) nature of the body is physical, which therefore suggests that one cannot change it, so one ignores it and turns to discuss other more changeable concepts. But the digital form of the body jumps out and reminds one that, since its emergence, the physical existing form is not the ONLY ONE any more, but only "one of" the forms. Therefore the physical nature of the body must be taken into account when issues relative to human beings are discussed. Additionally, the relationship and interaction between these two types of existing forms of the body also need to be considered. [①] This tendency and necessity of emphasizing the role of the body undermines the ground of the previous theory structure, and appeals to the return of the body. Consequently, as an alternative to the existing form of the body, the emergence of digital bodies, not only reveals the fact that the physical nature of the body has been ignored by the academic theoretical structure, but also foregrounds the body as a key concept once again. So, the digital existing form that makes the body a focus of debate, then also stresses the importance of the concept "body" for future research.

Secondly, the digital existing form of the body emphasizes "difference" and attracts attention to the different bodies existing in different ways. As I mentioned above, every player knows what the digital corpses of VHP are derived from, but they are not really the same as the physical body that every audience has. Similarly, every player knows that the avatar's body they are playing with is not the same as they have in the physical world. In other words, either the digital corpses of VHP, or the avatar's body, only inherit limited capabilities compared to a physical body, although with some additional capabilities in the meantime. For the digital corpses of the VHP, they inherit every single detail that a physical body has, gain some new capabilities such as the re-stacking capability which allows the corpses to be constantly restacked, whilst lacking some very basic capabilities, such as the one of spontaneous movement and action. Similarly, the avatar's body always has a human-shaped figure, can only be manipulated to move by a player, but, supported by the digitalization technique, the avatar's body can be more skillful than the physical body, for example by casting spells or fighting with monsters in a game.

[①] The issue of the relationship between these two bodies will be revisited in chapter 3.

To sum up, the emergence of the digital bodies of the VHP and the digitalization technique raises a significant question - how to deal with different bodies that exist in different forms and in different spaces. This question simultaneously undermines and reconstructs the theoretical establishment, and places the body under the spotlight again. What this question calls for is the return of the body, while the solution to it, accordingly, is the embodiment theory as a basic principle. As Waldby (2000) states, the crucial point about the digital corpse is that "it is simultaneously a visual text and a mathematical structure of data". Methodologically speaking, it is a visual text of the body produced through mathematical structures of data (p. 31). It suggests that the body, as an object and outcome of visualization, is the power to integrate the body and mathematics together. It also suggests that, even within the context of code/codification, the body is still the pivot and core issue for the research for future.

The most valuable result triggered by the digital existing form of the body is one's reflection on a series of questions, such as "how to deal with the new situation that there are different forms of the body" and, subsequently, "what is the body per se?" All these questions urge the return of the body and with it the embodiment principle. Based on her study on the virtual body in cyberspace, Anne Balsamo (1996) raises a similar question to me, which is: "How is the body staged differently in different realities?" Her solution and premise of this question is to "think of the body not as a product, but rather as a process – and embodiment as an effect" (p.131). I partly agree with her point of view, but her understanding of embodiment is still problematic. I focus on this issue in chapter 3.

2.1.2 Research Approach Clarification:

Distinguishing Embodiment from Materialism/Materiality

Previously, by raising the idea of "existing form" of the body, I elaborated my point of view that the emergence of digital bodies, including the VHP digital corpses and the avatar's imaging body on the screen, call for the return of the body. In this sense, physical existing form of the body not only acts as a foundation of the theoretical establishment that has been ignored for so many years, but also, along with the embodiment principle, as a pivot for research in the future.

Before entering the argument on the embodiment principle, I would like to clarify my research approach in this subsection by distinguishing embodiment from materialism or materiality. In academic thinking about the body and digital technique, these two concepts or issues are always connected, and

sometimes even made into sequences, whilst different approaches brought about by these two concepts are overlooked due to the connection between them.

When discussing the intentional repression of the physical body in virtual reality (VR) experiment and experience, Anne Balsamo (1996) unintentionally distinguishes these two concepts. Starting with the question of "what the relation of the material body to the 'sensory' simulation provided by virtual technologies is", Balsamo argues that a floating point of view established by apparatus "intelligible attests to the flexibility of embodied sense organs." Thus, although the body may disappear representationally in virtual worlds, it does not disappear materially in the interface with the VR apparatus or, for that matter, in the phenomenological frame of the player (p.126). Her statement suggests that, in the case of the VR, a floating point of view can be understood as one function of the embodied sense organs, and as evidence to support her latter argument. She defines the existing form of the body as representational in the virtual world and material in the physical world. That the latter one does not and will not disappear suggests that it is the essential nature of the body. What Balsamo does not explicitly point out is that embodiment as a capability of the body precisely makes the above distinction as well as the interaction between computers, apparatus, and human bodies possible, although she emphasizes a phenomenological frame for it.

My preference is to distinguish materialism/materiality from embodiment, by defining the former as one nature of the body, while the latter as its inherent capability. In this vein, it makes sense that these two sets of concepts are always intertwined with each other and are always engaged in academic discussion of digital technologies. The above definitions also reveal the potentially different approaches behind them.

I would like to clarify that distinguishing the embodiment perspective from the materialism/materiality means that I will not be dedicated to exploring whether digital images or digital productions are material through reference to the latest physics or scientific research. Instead, in this dissertation, I prefer to take the body into account in the case of the avatar, and consider embodiment as an impartibly inherent capability of the body.

Additionally, distinguishing embodiment from materialism/materiality also indicates a more individual-oriented emphasis. Materiality, or in other words, the material nature of the body, is always a general judgment, so it aims at categorizing a matter, or even a body. I do not intend to understand materiality as a holism; rather, what I would like to address is that the tendency behind it is to make a general judgement. Contrarily, embodiment leads to a more individual-oriented approach. Embodiment is applied to conditions that the body is involved in. On the one hand, the body can be utilized as a category, but on the other hand, this category always implies that every single body is

unique, singular, and different from other bodies. In this sense, embodiment also implies a tendency of individual-orientation, emphasizing the uniqueness and singularity of every single body and every single person.

I argue that embodiment as a principle functions and only functions on condition that the body is involved. The foundation of considering embodiment as a principle is that the human body is always involved in human activities. Embodiment as a principle does not mean creating a new fetish of the body to take the place of the traditional fetish of reason and rationality. Instead, embodiment indicates a carnal, present, and non-transcendental life, situated on Earth, experiencing and enjoying a carnal life.

My understanding of embodiment also supports and urges me to opt for the Daoist Yin-Yang emblem as the perspective to comprehend and intellectually grasp the updated world. As I will demonstrate in the next subsection, Yin and Yang, as dynamic energy and tendencies, are impossible to be judged and categorized as material or immaterial. Instead, they are embodied in, and only can be grasped within Wanwu (万物), namely, everything that constitutes the world and the universe. Indeed, it is not even necessary and proper to define or categorize them with the criterion of materiality. Opting for the Yin-Yang perspective does not mean avoiding making judgment about the material /immaterial nature. Rather, it can be seen as an alternative to go beyond binary opposition thinking. This uniqueness of Daoism and Yin-Yang assemblage makes it possible to avoid the confusion and become lost in the overlapping and intertwining of these two concepts of embodiment and materiality/materialism, and the different approaches they lead to.

2.1.3 Understand the Relationship Between Embodiment and Disembodiment From a Daoist perspective

After analyzing the necessity of the return of the body as well as the distinguishing the embodiment principle from materialism/materiality, this subsection introduces the Daoist perspective to reflect on the relationship between embodiment and disembodiment, and specifically, how to deal with the so-called “impasse” caused by the opposition between them. In terms of cybernetics theory, disembodiment and embodiment constitute the two specific sides of the boundary. As K. Hayles (2010) concludes, the development history of cybernetics theory is a process of struggle between the need of simplification for reliable quantitative results and more complex views for richer models. Put another way, the history of cybernetics theory is a fight between the embodiment perspective and the one of disembodiment. Hayles further assets that, “from the beginning, the social, cultural, and theoretical impact of

cybernetics has been associated with its tendency to configure boundaries" (p.149). From her statements, two series of core ideas of cybernetics in terms of epistemology, namely disembodiment/embodiment and boundaries, emerge. Furthermore, three of them outline the framework of, and the major tension within, cybernetics theory and its applications.

Indeed, how to deal with the question of "impasse" is always very important and concerned with the change of the way in which knowledge is produced. Generally speaking, it can also be seen as a question about how to understand boundaries. Should a boundary be considered as a closed, fixed and unbridgeable gap, a "porous membrane" (Castronva, 2005) allowing directive interaction between two sides of the boundary, or a distinction that can be modified and changed from time to time?

I prefer the third view, and would like to introduce the Daoist perspective to underpin it. Accordingly, I will discuss the issue of boundaries first, followed by a reference to the Daoist theory as an alternative perspective. Then I apply the Daoist theory and network perspective (See section1.2.2) to reflect on the specific "impasse" between disembodiment-oriented technology and the embodiment-oriented human body.

I argue that, firstly, modern technology has seemed to push disembodiment thought to the limit, especially through cybernetic technology and artificial intelligence, but, in the meantime, at the extreme of disembodiment, embodiment is recovered. This recovery is implied in the previous argument about the return of the body and the "three bodies" theory which demonstrates that, during the course of online game playing, three bodies in different spaces are integrated into a single player (see section1.2.3). I do not intend to see embodiment and disembodiment as a pair of oppositional terms, and therefore the relationship between them as an "impasse", Rather, I consider the relationship between them as the one between day and night, seemingly opposite but interdependent on each other, while fusing together at dusk and dawn.

In the first step, I look at the issue of boundary by referring to the theories of Donna Haraway (1991), and Bernadette Wegenstein (2006), since both of them attempt to offer a unique perspective taking technology or digital techniques and the body into account.

In her seminal work *A Cyborg Manifesto*, Haraway discusses the issue of boundaries caused by a series of dichotomies and raises her famous concept "cyborg". On the one hand, Haraway acknowledges the necessity of boundaries, and stresses that the boundary between human and machine is permeable due to the development of technology through which the world has been translated into a problem of coding. On the other hand, what she focuses on is the process of deconstruction and reconstruction of these boundaries. "There is no drive in cyborgs to produce total theory, but there is an intimate experience of

boundaries, their construction and deconstruction" (Haraway, 1991, p.181). Haraway does not mean to evade the necessity of boundaries. Instead, she puts "we" at the position that "we are responsible for boundaries; we are they" (ip.180). Cyborgs, or in other words, we, experience all boundaries; we are boundaries per se. Linked to another important theory of the "situated knowledge", Haraway's statement about boundaries also indicates that boundaries are always situated and thus embodied. In this sense, the boundaries are individual-oriented.

If the so-called opposition of embodiment and disembodiment means there is a boundary existing between two sides, as I analyzed at the beginning of this subsection, Haraway's thought about boundaries perfectly answers the question about how to deal with this "impasse". The cyborg's body is the site of experiencing the process of deconstructing and reconstructing those boundaries, including the boundary between embodiment and disembodiment. This contradiction or opposition is everlasting and the boundary is continuously breaking up and reshaping again, whilst the exact position and formation of the boundary is changing accordingly. In the same vein, it is justified to understand this so-called "impasse" as one of inevitable contradictory situations experienced by the body.

Applying Haraway's cyborg theory to my research on the avatar, which also can be seen as one unique type of cyborg, her theory is inspirationally but not sufficient to interpret the situation the avatar and the players confront. According to Haraway, "a cyborg is a cybernetic organism, a hybrid of machine and organism, a creature of social reality as well as a creature of fiction"(p.149). Meanwhile, the avatar, employing what Waldby describes as the digital corpse of the VHP, is "simultaneously a visual text and a mathematical structure of data", "a visual text of the body produced through mathematical structures of data"(Waldby, 2000, p.31), and thus can be manipulated through a computer by a player. Apparently, for the cyborg, the tension between machine and organism has been replaced by the fusion of data and the body for the avatar; while the site for the tension has moved from the unique physical body for the cyborg to the three involved bodies for the avatar. Haraway's focus is on how the cyborg deconstructs and reconstructs the boundaries between human and machine, rather than on the boundaries between real and virtual, while the latter is one of the key issues for the avatar. I will revisit the specific issue of distinction and understanding of the real and virtual in the next subsection.

In the meantime, Haraway's insight of the cyborg is still inspirational. Firstly, it is true that the avatar is responsible for the boundaries not only between the human and technology, but also between the real and the virtual, and the avatar is both of them. It is also true that the avatar-related bodies (the three bodies during the online game playing) are more complicated and multiple than the cyborg's body. As I previously argued, the boundary between the real and the

virtual is shifting from "crossing" - Haraway's word "permeable" and in Castronova's words "porous membrane" - to "blurring" (see section 1.2.1). This shift is precisely based on the fact that there is more than one body involved in the course of game playing, and is realized due to the multiple bodies of every player. One of Haraway's statements on a cyborg's body, which is not often quoted, is that "one is too few, and two is only one possibility" (1991, p.180). This can be seen as a prediction, wherein the "possibility" is realized in the avatar and in the co-existing relationship between the avatar and the players' bodies. Accordingly, the three bodies involved in the course of game playing are the sites every player experiences boundaries, and these bodies are boundaries per se, including the boundary between the physical flesh and digital images, between the real and the virtual, and between online gaming and offline life. As a result, it underscores one more time that the boundary is an embodied concept instead of a pure rational one.

From the above perspective that there are three co-existing bodies involved in the course of game playing, Wegenstein's theory is worthy of being discussed again. In her theory, Wegenstein (2006) highlights the mediation of the body, showing another way and attempt to deal with the relationship between disembodiment and embodiment, and further to resolve the so-called "impasse". Different from Haraway who confirms the necessity of boundaries, Wegenstein tends to go beyond them, in particular beyond the "impasse" produced by the boundary between embodiment and disembodiment. Her solution is the mediality of the body. Through studying a specific research field – digital media art and architecture – Wegenstein opts for a media perspective and pushes it to a limit by arguing that "the medium has become the body". "The current body discourse has 'gotten rid' of the body insofar as the medium has become corporealized itself, and has therefore taken the place of the actual body…. The body no longer is a medium for something else, standing in for a truth or a reality that lies beyond the surface. … The medium, in other words, has become the body" (p.161). This is a radical statement.

Linking back to Wegenstein's perspective of mediation/mediality of the body, I would like to understand the medium as the one that has become embodied and has had to "corporealize itself", while the mediality is precisely the source of this capability. My understanding might be different from Wegenstein's original intension, but does make sense when it is connected to her other claim that the body has the capability to disappear, but embodiment cannot. In this sense, "corporealizing itself" can be understood as a process in which disembodied digital technologies and media provide their players with the capability of experiencing as a likely corporeal and physical being; in other words, experiencing being embodied. In the same vein, Mark Hansen (2006b) comments that, "in the new mediatic regime, disembodiment comprises of an opportunity to experiment with what the body can do, which means that, in accordance with the Spinozis-Deleuzeian paradigm, disembodiment itself

paradoxically becomes an irreducible dimension of embodiment ”(xiv). Hansen’s words clearly explain Wegenstein’s claim and push it further.

I would like to replace “disappear”, the word Wegenstein utilizes, with “invisible”, in order to avoid falling into the big trap of descending into the fetish of one polar of two oppositional sides. Firstly, I doubt that the body can disappear at all, whereas it can be invisible. For example, when people log into cyberspace, the physical body is blocked outside of this virtual space, but does not disappear. Instead, the body just cannot be seen and touched in this virtual space. Secondly, if the body does disappear, how can embodiment still exist? Even further, if embodiment still exists without the body, is embodiment existing in a disembodiment way? Or, in other words, if embodiment could be as abstract as disembodiment, what is the difference between them, and what is the value of recovering back the concept of embodiment? A disembodied embodiment is definitely not a good perspective to understand the new situation one confronts. Rather, in terms of epistemology, it is rooted in the same source, namely the fetish to rationality/reason, and follows the same thinking pattern that what it fights against does. Additionally, I do agree that mediality can be expanded from “within” the physical body and the body parts to “among” the body and machine, “among” embodiment and disembodiment. As a result, this so-called “impasse” produced by the opposition between embodiment and disembodiment is not a dead end at all, but an inevitable phase of the whole process and a chance for transformation. Furthermore, Hansen’s utterance quoted above is not accurate enough, because it could be misunderstood as evading contradiction or the so-called “impasse” by considering disembodiment as a dimension of embodiment.

Therefore, I would like to go further and introduce the Daoism perspective into my understanding of boundaries, intertwined with the net-work perspective that is emphasized and fully flourished with and within the development of cyberspace and the avatar. The Daoist perspective is very inspirational for understanding boundaries, especially the boundary and relationship between embodiment and disembodiment, while the net-work perspective can be used to depict the cartography of boundaries.

What I borrow from the Daoism theory is not the exact tenets but the perspective, which is mostly embodied in the Yin-Yang emblem. As shown above, the Yin-Yang Tai Chi emblem illustrates one of basic theories of Daoism, in particular, the relationship between Yin and Yang. In general, it suggests the way in which one deals with the relationship between two poles that are opposite to each other or a couple of terms that constitute a binary opposition. I would like to utilize the Tai-ji emblem as an analogy to the cartography of embodiment, disembodiment, and the boundary between them. I do not intend to elaborate the Daoism theory here, but I will explore how the Yin-Yang emblem inspires my thinking about the above-listed issues after a brief review of the Daoist theory.

In the Tai-ji emblem, the black zone refers to Yin, while the white zone indicates Yang. Yin and Yang curve into each other equally, but are not isolated from each other, instead, both of them together constitute a sphere and neither of them is dispensable. “The created universe carries the yin at its back and the Yang in front; through the union of the pervading principles it reaches harmony” (Lin, 1958, p.206). It is important to note those two dots that lie in the opposite part: the black dot is embraced by the white part, while the white dot is lying in the black part. As Wong Kin-yuen (2014) points out, “the Yin-Yang emblem proliferates into an infinite sum of multiple, nonlinear and relational assemblages between structure and change, embracing a nuanced and overlapping difference without a concrete model, coextensive with the eventful and emergent of fluid and rotational connectivities” (p.92).

Figure 1: Yin-Yang Tai-ji 太极 emblem.

I am indebted to several key terms and ideas inspired in my exploration of the above issues. Firstly, embodiment and disembodiment are different but inseparable from each other; they are interdependent, and, under certain conditions, interconvertible, as the Yin-Yang emblem suggests. They are interdependent and interconvertible, and they insist and stress the existence of confliction and opposition between them, instead of, as Hansen (2006b) argues, considering disembodiment as one dimension of embodiment. This assumption embraces three premises: (1) the confirmation of an existence and value of boundaries; (2) neither embodiment or disembodiment can exist without the other; and (3) the notion of each term as well as the extent to which embodied and disembodied function are not fixed, but instead, flexible and changeable. All evidence to support these three premises can be found in my previous argument. Turning back to my analysis of the digital corpses of the VHP (see section2.1.1), the capability of turning flesh to data, data to flesh, realizes the potential of mutual transformation between embodiment and disembodiment. In addition, it reveals that all technologies, even those disembodied, codifying technologies, are potential for human life, and none of them can be invented or produced without the human body. For instance, for the VHP digital corpses, the human body is its experimental imitation object, while the VHP aims at

exploring new medical treatments by discovering, and thus learning, more about human bodies.

In the case of the avatar in online game playing, as I have analyzed in chapter 1, the perspective of the "three bodies" involved in the course of online gaming integrates embodiment and disembodiment into an acting body, namely the player's body. In the case of the virtual reality (VR) condition, even if, as Balsamo (1996) stresses, participants are supposed to be "offered the vision of a body-free universe" and the body "may disappear representationally in virtual worlds", "it does not disappear materially in the interface with the VR apparatus or, for the matter in the phenomenological frame of the user" (p.126). Accordingly, when some scientists like Stephen Wolfram and Edward Fredkin insist that the universe is a giant computer (Hayles, 2010, p.150), they ignore the position of themselves, scientists, and, in general, human beings.

Meanwhile, embodiment and disembodiment share the same root and criterion, namely the body. In other words, the criterion to judge whether or not something is embodied is the extent to which the body is engaged. It means that embodiment and disembodiment are two sides of the same coin, and cannot exist without the other. The theory of the three bodies engaged in the course of online game playing supports this assumption from another angle. It illustrates that the body is not only the site for the integration of embodiment and disembodiment, but also fuses and blurs the line between them. The latter significance, highlighted by the theory of the "three bodies" and the Yin-Yang emblem, can also be found in the development history of technology. In some sense, the history of science and technology is the one of the struggle between the embodiment and disembodiment principle, just as the conclusion Hayles makes for the history of cybernetics. Or in other words, just as the Yin-Yang emblem shows, in any conditions, even in the domain of white Yang, a black Yin dot lies within it. Even when disembodied science develops to the extreme, for instance, by "translating the whole world into a problem of coding", there is no way to absolutely exclude embodiment from even the most disembodiment-oriented science domain. To put it another way, the attempt to push disembodiment to the extreme precisely reveals the existence of the "embodiment" black dot that is always lying there within the disembodiment domain. The body has become the best and most complicated arena for this struggle.

Therefore, by applying the Yin-Yang emblem to my thoughts on the relationship between embodiment and disembodiment, I argue that at the limit of disembodiment, embodiment is recovered. This assumption is based on acknowledging that disembodiment and embodiment are not only opposite to each other, but also constitute a reciprocating, non-hierarchical succession which is composed of continuity and discontinuity. Neither of them can exist without the other, just as the Tai-chi emblem shows. This is a return to the submitted from the extreme of the dominant, because neither side of the

opposition can exist without the other, and digital technology helps one rediscover the way back to this principle.

The second updated perspective inspired by the Yin-Yang emblem is on the nature of embodiment and disembodiment, and the process of the endless, non-hierarchical, non-dualistic rotation constituted by them. I believe that this update in terms of the way in which one understands the nature of these two terms does have an influence on the epistemology, and itself is an epistemological change. I suggest that one should understand embodiment and disembodiment as a kind of dynamic energy or a tendency, instead of fixed, unchangeable poles. According to Daoism, in nature, both Yin and Yang are a type of Qi[①], which I understand as a dynamic energy or a tendency that is untouchable, unfixed, and flowing all the time.

Departing from this perspective to think about the case of embodiment and disembodiment, the relationship between them is apparently beyond dualism. This is because a dynamic energy flows and intertwines with other flows of energy, while the way to map a relationship between two flows of energy is non-dualism, although Yin and Yang always co-exist. As Eric. S. Nelson (2003) suggests, Dao De Jing 道德经, one of the classics of early Daoism theory, is radically nondualist, since it insists on the unique particularity or difference and the interdependence of things. In this sense, the Yin-Yang perspective also echoes the theory of difference.

Another point worth noting is that the two dots lie in the opposite parts: the black dot is embraced by the white part, while the white dot is encompassed in the black part. The unique position of these two dots suggests that, although Yin and Yang are situated in different halves of the whole circle, each of them has a chance of transformation into the opposite half. This potential for transformation distinguishes the Yin-Yang assemblage from dualism and Hegelian dialectics. A comparison between the two versions of the renditions to a well-known and classical tenet from Dao De Jing reveals this potential which is implicit in Daoism perfectly. The first version, translated by Lin Yutang who was a Chinese writer, translator and linguist, born in 1895, is more literal than the second version by two American scholars, Roger Ames and David Hall. Literally translating this famous tenet (chapter 42) into English, Lin wrote, “Out of Tao, One is born; Out of One, Two; Out of Two, Three; Out of Three, the created universe. The created universe carries the yin at its back and the Yang in front; through the union of the pervading principles it reaches harmony”[②] (Lin,1958, p.206). Roger Ames and David Hall (2003) replace the

[①] In Chinese, Qi, also known as Chi, ch'i or ki, is originally written as 气. It is one of the core concepts of Daoism in terms of philosophy, religion, and Chinese medical thought. Qi is frequently translated as "natural energy", "life force", or "energy flow". I tend to opt for the word “energy’ that is utilized in *Laozi, Dao De Jing: A Philosophical Translation*, translated by Roger Ames and David Hall.

[②] The original tenet in Chinese is as follows: “道生一，一生二，二生三，三生万物。万物负阴而抱阳，冲气以为和”。

words “one”, “two” and “three” with terms such as “continuity”, “difference” and “plurality”. Their version is “Way-making (Dao) gives rise to continuity, continuity gives rise to difference, difference gives rise to plurality” (p.142-143). This replacement clarifies the connection between Daoism and post-modernity, even posthumanism, and also offers a new perspective to understand the body, embodiment and disembodiment. From “one” via “two” to “three”, epistemology develops from focusing on continuity, difference, to plurality, and finally return to everything (Wanwu)万物, or in other words, the world. In the case of the avatar in the information era, this world refers to the integrated world that embraces the traditionally physical world, and the virtual world created by online game playing, virtual reality experiments, and other possible means hopefully emerging in the future. This above-mentioned sequence cracks open the binary opposition structure, without denying or evading distinction and boundaries. Rather, it is a common thread woven by the confliction between two opposite energies, going through all these three phases and conversely tying them up.

So what is the nature of embodiment and disembodiment? On the one hand, if they are energy, or a tendency in nature, then the binary dualism is just a vain attempt to fix the dynamic energy. On the other hand, this phase of binary dualism is also inevitable, because it is a necessary stage between continuity and plurality. Thus, I argue that the relationship between embodiment and disembodiment is precisely a stage overcoming continuity and opening towards plurality.

Last but not least, although the issue of boundaries has been sporadically mentioned in this subsection, a concrete discussion on it is still worthwhile. In most discussions about the relationship between embodiment and disembodiment, the issue of boundary is implicit. I would like to go further to think of what would happen if the circle of the Yin-Yang emblem rotated. The result would be chaos. In-between the shift of white and black, curved line and round figure, there is no way to fix a boundary, even though the boundary does exist. In other words, boundaries become blurred.

In the case of the avatar, the boundary between embodiment and disembodiment is lying on the body, just as the Yin-Yang emblem shows that both the curved line between yin and Yang, and the edge of those two dots, are lying in the emblem per se. This can be seen as an echo of Haraway’s (1991) statement, that “we are responsible for boundaries; we are they” (p.180). Connected to the analysis of the “magic circle” I made in chapter 1, the boundary between the game/virtual world and the real/physical world has changed from penetrable to blurred. This blurring of boundaries reveals two points: firstly, boundaries are not fixed, but are dynamic and always moving, shaping and reshaping; and secondly, boundaries are situated in every single body and in all connectivities surrounding the body. These two points are perfectly illustrated in the case of the avatar.

2.2 Rethinking the "real"

Departing from the embodiment principle and proceeding with another significant boundary between the real/reality and virtual, this section deals with how to understand and redefine the concept of "real/reality". Some scholars in the field of game studies prefer terms such as "physical" and "actual" to "real", and "digital" to "virtual". It is wise to turn to new terms so that some biases or preconceptions can be avoided, for example, the opposition between the real and virtual, which is always equalled to reliable and unreliable, even to right and wrong (Huynh et al., 2013; Gunkel, 2010). Nevertheless, due to the simulacrum and imaginative nature of the avatar, the issue of "real/virtual" is always inherent in one's argument. It is worth noting that debates on "the real/virtual" have taken place since the birth of the avatar. As David J. Gunkel (2010) summarizes, the debates are based on the same ability offered by the avatar, whereas different scholars develop their argument in two opposite directions. For the avatar, "this ability to manipulate and reconfigure one's identity has been either celebrated as a significant advantage and gain for the real people who use the technology, or it is criticized for the way it facilitates deception, antisocial behavior and problematic forms of identity tourism" (p.139). No matter whether being optimistic or pessimistic, the focus of these debates is always the consequence on real people in the real world. Therefore, despite their dissension, Gunkel points out that "the real problem has to do with the real" instead of the virtual (p.140). I insist this issue is worth being discussed, unless one really tends to separate the academic research from daily life. Otherwise, exploration of some traditional terminology is indeed as necessary as coining new words. No matter whether one likes or not, the issue is, in some sense, inevitable. In this vein, contrary to abandoning terms like "real/virtual" and then adopting new terminology, I would rather put the question in a different way, namely: how do we understand the "real" in the information era?

My assumption is that, in the case of the avatar, the understanding of "what is real" has come to be individual-imagining-oriented. This is because the world where both the physical person and the digital identity are living within has become assimilated, and has been integrated through the embodiment principle. Additionally, the embodiment theory as a fundamental principle intensifies this orientation, because embodiment, in some sense, always implies an individual-orientation. As a result, the real is also becoming a process, in which every individual has their own definition of the real, and then revises it in the course of encounters with other people in different environments.

In this section, my argument will be unfolded into two dimensions. The first dimension is concerned with the question of whether or not there is a real world and how to redefine the concept of "real". Its connection to the other core term

"the magic circle" makes this issue a hotly debated item in game studies (see section1.1.2), whilst exploration of it can be seen as a premise for a latter discussion. The second dimension looks at the role of imagination and imaginary in this context, or in other words, how to understand the real/reality in the condition that imagination/imaginary has been deeply engaged in. The nature of unreality of both imagination and imaginary implies that this process of identification will be haunted by the doubt about "what and which is real", and, meanwhile, makes the above discussion much more complicated, multiple-layered and even multi-dimensioned, and thus significant. Since concepts such as real, reality, and hyperreal are deeply involved in debates on this issue, and Baudrillard's theory will be discussed.

2.2.1 The "magic circle" and the real/non-real

This subsection looks at the issue of real/non-real within the domain of game studies, by referring to Baudrillard's theory and the controversial concept of the "magic circle" that I discussed in chapter 1.

Debates on the nature of cyberspace, the space created and supported by information technology, and in particular the internet, have been around since the initiation of cyberspace. The emergence of the avatar, where every single player can create and manipulate a "second self" (Trukle, 2005) to surf and communicate with people on the internet, intensifies and diversifies relative debates. As previously mentioned, no matter what terms scholars utilize to replace and evade words like "real" and "virtual", the question of rethinking what the real is is always behind the terms one uses. In discussions about real/virtual, Baudrillard's theory is frequently referenced. So, the theories of some game researchers and Baudrillard will be combined in my following argument.

The first point is about the distinction between the real and the non-real[①]. In his *Two Essays*, Baudrillard (1991) raises a prospective question about the distance between the real and the imaginary, which can be viewed as another version of the "magic circle". He asks "what happens when this distance, even the one separating the real from the imaginary, begins to disappear and to be absorbed by the model alone?" (p.309). Here, distance, in particular the distance between two spaces and between two categories, is highlighted. At first glance, it looks like Baudrillard is describing the situation of the avatar, if it equals the model to the algorithm that makes a contribution to the creation of the avatar. Also,

[①] I use the word "non-real' here to avoid narrowing down any possible dimensions from which scholars depart to categorize the opposite side of the real. "Non-real" here embraces three sets of terms: imaginary and fantasies, virtual, and fictive.

this statement can be viewed as a perfect support for the idea held by some game researchers, that “there is no magic circle” and even “there is no real”.

Game researchers have given their answers to this question from their unique perspectives. Some of them challenge the dichotomy between the real and non-real by doubting the concept of the “magic circle” and thus if there is a dependent space created by and within internet online games and online networks (see chapter1). To re-articulate, they have challenged the notion that MMOs (Massively-multiplayer online games) are separate worlds, located outside “the real world”. Vili Lehdonvirta argues that the dichotomy of “real world vs. virtual world” is either rooted in the “magic circle” concept (Consalvo, 2009; Lehdonvirta, 2010), or in the cyberspace separatism of early internet thought. Focusing on cheating in online game playing, Mia Consalvo (2009) argues that there is no magic circle, because if someone, in her studies a person who cheats in a game, can cross these two spaces, then the boundary is invalid. She also suggests that the concept of a space “apart from” everyday life, namely the geographical or conceptual notion of the “magic circle”, becomes harder to maintain. “There is no innocent gaming” (p.411), because players have acquired some information about new games even before they have started to play them, and because of the possibility of cheating. Similarly, Lehdonvirta (2010) refutes the point of view that sees an MMO as a virtual world, standing apart from “the real world”, by listing six caveats that must be taken into account. These seven caveats are all about if those elements can be clearly distinguished from “the real world”: the space the virtual world occupies; the population of the virtual world; inhabitant identities; social relationships; regulations of outside norms and institutions; the influence that shifts in the real economy put on an MMO economy; and that the MMO’s law and politics are shaped by outside processes. Consequently, he argues that the real world does not exist either. Because if the concept of “virtual world” is problematic, then there are problems in the way the “real world” is implicitly conceptualized. In the same vein, he insists that the “virtual” prefix in this case should be understood as signifying that they are computer-mediated, in other words digital, and not that they are unreal or derivative. Indeed, what Lehdonvirta suggests is that concepts like “real/virtual” should be excluded from game studies, especially MMO studies, and that different kinds of space are differentiated by the means in which it is produced, instead of by the criterion of the “real/virtual”.

Also focusing on the MMOs and challenging the concept of the “magic circle”, Mia Consalvo pays more attention to finding another perspective to substitute the magic circle. She views the magic circle concept as a structuralist definition and an attempt to conceptualize the games. “It emphasizes form at the cost of function, without attention to the context of actual gameplay”. According to Consalvo, with contemporary games, and MMOs in particular, “context is key” (2009, p.411). As a result, she tends to consider a game as “a contextual, dynamic activity, which players must engage with for meaning to be

made"(ibid), and turns to Gary. A. Fine's reconfiguration of Erving Goffman's theory of frames and keys to explain the game players' worlds (Fine, 1983). According to Fine, players can up-key from daily life to the world of game rules and game structure, and can also down-key back to their daily life when an interruption occurs, for example, a phone call or a knock at the door. Since the "real world" always intrudes on game playing, Consalvo (2009) suggests conceptualizing gamer activity as movements between frames, rather than seeing a boundary break or simply being "inside" or "outside" a magic circle (p.415). Put another way, she attempts to reconstruct online game playing by mapping multiple overlapping frames, including "players' daily life, the game world, their characters' alleged knowledge and past", where players can move with fluidity and grace, instead of sticking to the single structure of a magic circle.

Through her study on MMOs, Consalvo tries to substitute multiple frames for the concept of a "magic circle". I would like to highlight, however, that the existence and the role of boundary is implicitly kept in her argument, while what she emphasizes is that gamers' acts are "always, already, contextual and dynamic" (ibid). Those characteristics do not contradict with the role of boundaries, but instead they are combined in the online game playing. On the other hand, Consalvo does not try to redefine the real and reality, but sees them as conventional concepts that are mostly equal to the other concept of "daily life".

The above refutations of the traditional concept of the "magic circle" share a similar approach, that is, to challenge the idea of the single boundary between the real and the virtual, and between the game and non-game. Generally speaking, their refutations can be seen as challenges to a separatism that sees the game /virtual world as being separated from the daily life/ real world. Although different scholars opt for different approaches, their attempts can still be summarized as utilizing multiplicity against opposition between the two sides, whilst trying to open the door towards multiplicity. However, those attempts are, in some sense, superficial changes that do not thoroughly resolve this issue about boundary and its consequences. Even for Lehdonvirta, who revises the whole structure of the magic circle by utilizing means as criterion to replace the old "real/virtual" judgment, and thus invalidating the concepts of "real" and "virtual" in game studies, still cannot avoid the issue of boundaries. The same applies for Consalvo.

Unlike Consalvo and Lehdonvirta, other scholars who study "documentary computer games"[①] and historical games profoundly discuss the issue of what real is. For these games, historical, even documentary backgrounds and

[①] I borrow this phrase from Joost Raessens. In his work *Reality Play: Documentary Computer Games Beyond Fact and Fiction*, he uses the phrase "documentary computer games" to indicate games that combine the facts of documentaries and the fiction of computer games, such as 9-11 Survivor and Escape from Woomera.

contexts are inherently involved as a fundamental element, so the question about real and non-real is prominently emerging. As Joost Raessens (2006) points out even when those documentary games succeed in being more or less historically accurate, "they always occupy a comparable tense between fact and fiction" (p.218). Eva Kingsepp (2007) reassess Baudrillard's theory, in particular his thoughts about the real, by utilizing the Baudrillardian hyperreal to fight against the hyperreal. Through her research on World War II, Kingsepp states that the issues of real, fiction, and simulation are inherently involved. According to Baudrillard (1998), hyperreal is "the product of an irradiating synthesis of combinatory models in a hyperspace without atmosphere" (p.167), and is the consequence of the fact that the real "is no longer enveloped by an imaginary, it is no longer real at all. It is a hyperreal" (ibid). As one core concept, hyperreal has a connection to Baudrillard's assertion, that the world of today has lost its connection to reality, to history, and the possibility of transcendence. All of these losses are caused by the first loss of the original and the referential. This is where Baudrillard's core thoughts lie, and where Kingsepp (2007) starts. She focuses on death in World War II digital games like Medal of Honor, Return to Castle Wolfenstein, and finds out that "death both is and is not the end" (p.371). As a result, even if the games claim for authenticity and real experience, in the hyperreal, death, the ultimate proof of being alive, has lost its link to reality.

Herein, Kingsepp finds the fundamental counterexample and ultimate flaw of the Baudrillardian hyperreal, namely the simulated death. The death in the gaming hyperreal, like a backdoor in a computer program, can be used as a counterexample to fight against the hyperreal, because the simulated death in gaming always, as I argued above, reminds players of the fact that they are playing a game instead of living a real life. It also suggests that this is definitely a dead end to understand the real. I would like to highlight this point and put it another way. If one can only prove that one is alive through death, does it mean this approach is wrong, or at least that it really needs to be updated or changed? As Kingsepp concludes, "as long as there is a gap where the gamer notices the imperfections in the virtual world in comparison to the real, then Baudrillard's definition of hyperreality does not seem to fit on all levels" (p.373).

I would like to go further, firstly with Kingsepp's analysis on death in games, and then her conclusion, specifically on the questions of how to differentiate "real reality" from "authentic feeling", and how to understand the relationship between them. These questions really deserve to be explored, and to be treated seriously as a possible breakthrough approach leading to new perspective to resolve the problem left by Baudrillard that Kingsepp lays bare. In digital games, "death both is and is not an end", and can be seen as "a temporary absence" (p.371). Death in games just means an end of one round of playing, and the players have as many times as they want to revive their avatars and try again. Not only does this remind players that they are playing a game instead of living a life, it also reveals the reason – the physical body cannot be simulated

even if it can be represented on the screen or in other ways. Correspondingly, it reveals the key role the body acts, not only as the solitary one that cannot be simulated or duplicated, but also as the fatal counterexample to fight against the hyperreal. Pessimistically speaking, even if there is a hyperreal that has replaced the real that has its referential, one still has one's body that will not become a hyperreal, and can go through these different reals or different realms of the real. Optimistically speaking, it echoes my argument about the return of the body in section 1. It is time to recover the body, to reassess the value and the role of it. The body here holds the last situation and possibility to prevent one from being overwhelmed by the hyperreal, and offers one a new perspective to understand the world.

So, what is this new perspective? Here I turn back to Kingsepp's work to find a clue. In the same essay, Kingsepp mentions players' feelings in the course of game playing. For a player who is facing war, struggle, death, and perhaps even temporary transcendence in front of a computer screen, though still be safe and sound, "it might be close to reality, or rather hyperreal, and your feelings are authentic (because you have them), but it is not real reality" (p.367). She uses the phrase "authentic feelings" to describe what players are experiencing during their games, and considers it as not a real reality. In the meantime, she acknowledges the authenticity of those feelings, which are authentic and real, but for Kingsepp, those real feelings are not enough to support a reality. Given that she has proven that Baudrillardian hyperreal theory is not applied on all levels, I would like to consider another way of understanding what the real is.

I would like to employ the concept of "experience", as Raessens (2006) suggests, as a bridge between what Kingsepp calls "authentic feelings" and "real reality". By referring to Dutch historian Frank Ankersmit's theory, Raessens highlights the role of experience for a better explanation of the specific position of documentary games, which are in-between fact and fiction. According to Ankersmit, "if you dispense with experience, you lack the intuition, openness and susceptibility towards the knowable and, therefore, towards the past. That is the reason for my rehabilitation of experience as a source of insight" (p. 222). In this sense, the concept of "experience", including the "feelings" Kingsepp mentions, becomes a new criterion to define the real.

The game *Hurt Me Plenty*[①] is a good example for depicting how "experience", especially the feelings and experience aroused by the simulation of the body's behaviour, crosses through the "magic circle" and becomes the criterion on which the real depends. *Hurt Me Plenty* is a short game where, as game designer Robert Yang instructs, a player spanks the heck out of a man (the submissive) and learns about how BDSM (bondage & discipline, dominance & submission, sadism & masochism) communities attempt to formalize consent/caring. In this game, this man's knees and hands are fixed on the ground, and a player is allowed to spank this half-naked man until he says a

[①] The web link of the game is : http://radiatorYang.itch.io/hurt-me-plenty.

safe word. When a force is spanking him, his body shakes and his skin turns red, performing a "trembling pleasure". Vividly and visibly simulating the spanking force and the man's reaction, as Yang claims, makes "the results feel more 'real' to me than some supposedly realistic motion capture." Mark Wilson (2015) comments on this game that, "most video games treat sex as a goal, but *Hurt Me Plenty* treats it as a process with real consequences." When trying to play the game, Wilson noticed the relation between his every flick of the mouse and the reaction of the man. "The slightest flick of the mouse smacked his butt like I'd swung a paddle with two arms. Repeated flicks cause him to convulse as if he's being shocked by a taser while moaning in word bubbles"[①]

As Yang explains his original intension, this game aims at performing sex, and tries to illustrate how one can use expressive gestures to role-play as well as think about pain and intimacy. With this game, Yang endeavours to "represent sex as an on-going process", which can be even more real than the realistic movement capture. I would like to highlight these three goals, as all of them are the bodily and embodied experience, although having sex and pain are more concerned with the physical body, while intimacy is more related to feelings.

If authentic and real feelings and experience can be aroused by simulated games that can be seen as a realization of shared fantasies, does it mean that the criterion of the real and non-real is not necessarily material-oriented? Linked to the analysis on death in games, which reveals the ultimate fact that the body can be represented on the screen but cannot be simulated in any way, these experiences must be embodied. Being authentic and real is precisely because these experiences and feelings are inseparably situated, embodied in the body of a single person. This answer seems to be contradictory to the way one always understands the real/reality as material. But from another angle, it echoes the distinction between the embodiment principle and material-orientation that I made in section 2, and supports my clarified approach.

I argue that in the case of the avatar, and in general for every single participant of digital online life, the way in which one defines the real should be explored and thought of in terms of embodiment, instead of material/materiality. It is not really necessary to judge if what arouses one's feelings in the course of online game playing, internet surfing, or communicating with other avatars and players is material. Indeed, it is impossible. It does not matter if these experiences are material. What does matter is that one's feelings and experiences are authentic and real. I do not mean to deny the value of materialism, or confirm that those experiences are immaterial or not. What I stress is that they are embodied, and cannot be separated from the body, so does one really need to separate them from the physical body and categorize them as material or not? Is it more rational and sensible to see those

① http://www.fastcodesign.com/3043525/hurt-me-plenty-a-spanking-game-where-sex-can-hurt-someone .

experiences as an inseparable part coexisting with the body and accordingly change the way one comprehends the real?

Death and the physical body per se cannot be simulated or duplicated, so what digital technologies can do is to simulate the life that people are living, including the way people think and interpret the world, the relationships they establish and develop with other people, and the identity shaped and updated by their experience in the integrated world. I come back to the issue of death and the physical body in chapter 3.

2.2.2 Imaginary/Imagination and the Real

After discussing the issue of the real/reality and the virtual with reference to the concept of the "magic circle", this subsection carries on the exploration of the "real" in the light of the role of imagination. As I have argued in chapter 1, for the avatar, in terms of both game studies and Baudrillard's thoughts, the imaginary/imagination plays a very important role. For Baudrillard (1991), the imaginary, opposite to the real, even "was the alibi of the real" (p.310). It makes the imagination an inseparable element in the discussion of the "real". Since I have discussed about how the imagination becomes engaged in the course of game playing and how it works, in this subsection, I pay more attention to the theoretical exploration of the relationship between the imagination/imaginary and the real in cyber-oriented environments.

My assumption is that, since the concept "real" has become more embodied-oriented, instead of material-oriented, the relationship between the real and imagination or imaginary is no longer oppositional. Instead, the boundary between them is blurring and overlapping. To prove it, I would like to start with a discussion of the relationship between the imagination/imaginary and the real with reference to Baudrillard, followed by a redefinition of the real, along with an application of my understanding of this relationship.

For Baudrillard (1991, 1998) , that the real has become producible and can be produced "an indefinite number of times" is one of the reasons for the real disappearing. The actual destroyer of the real is the simulation principle, which replaces the reality principle and makes the endless production of the real possible. "The real is produced from miniaturized units, from matrices, memory banks and command models – and with these it can be reproduced an indefinite number of times. It no longer has to be rational, since it is no longer measured against some ideal or negative instance. It is nothing more than operational. In fact, since it is no longer enveloped by an imaginary, it is no longer real at all" (1998, p.167). Regarding the relationship between them, he also states that, "the imaginary was the alibi of the real, in a world dominated

by the reality principle. Today, it is the real that has become the alibi of the model, in a world controlled by the principle of simulation" (1991, p.310).

Regarding the simulation principle, Baudrillard claims that "the stage is now set for simulation, in the cybernetic sense of the word – that is to say, for all kinds of manipulation of these models…, but now nothing distinguishes this management-manipulation from the real itself: there is no more fiction" (1991, p.310). To find a way out through his confusing statements, two binary oppositions are key. The imaginary and the real constitute one duality, which was the old structure that existed in a world dominated by the reality principle. The other duality, constituted by models and the hyperreal, is the new situation of a world dominated by the cybernetic simulation principle. The latter's connection to the former, lies in the change that the real has been replaced by the hyperreal, while the reality principle has been taken over by the simulation principle.

I do not agree with Baudrillard's statement because his argument is confined within a binary oppositional pattern, which is very apparent as it appears in the above outline. To map positions of the imaginary and the real within Baudrillard's theory frame, the imaginary and the real constitute two, and only two, elements of the world. His logic is that since the imaginary was the alibi and the enveloping of the real, so if the real can be produced from models and technologies, the former opposition is broken and replaced by a new one between the model and the hyperreal. As a consequence, there is no space for imaginary and fiction, because the former binary structure constituted by the real and the imaginary has gone. When the real has been replaced by the hyperreal, the imaginary should be replaced by the models as simulating tools. It presupposes that there is a fixed space constituted by only two elements, and no matter what kind of changes happen, the space is still fixed. That is the only reason that Baudrillard's substitution can happen, which is what happens when balancing an equation. This binary thinking is also expressed by Baudrillard's insistence in the hierarchy between the two oppositional sides. For him, "simulation threatens the difference between 'true' and 'false', between 'real' and 'imaginary'"(1998, p.168). Linking to his nostalgia for Aura and the original, it is obvious that what he mourns for is not the difference but the hierarchy between true and false, between real and imaginary.

If the imaginary was the alibi of the real, when the real has become a hyperreal, or in other words where there is no longer any real, the sensible deduction is that the imaginary is not opposite to the real any more. At least, it can be deduced that the existing relationship between the real and imaginary is broken and needs to be rethought, rather than asserting "there is no space for the imaginary" or fiction. Accordingly, the next question should be how to define the relationship between the imaginary and the hyperreal. But Baudrillard, sticking to the binary opposition pattern, has to keep a newly formed binary structure of the real and the hyperreal, and then has to eliminate the role of the

imaginary, when he insists that the real has been replaced by the hyperreal. For him, only two elements are allowed to be in the whole structure, which is the structure for the one world, the physical world.

So, what happens when the perspective of the integrated world is introduced into the cartography of the imaginary and the real? I would like to return to the argument I made in the last subsection. The analysis on death in games indicates that the body is the only one that cannot be simulated or duplicated, which is the starting point Kingsepp holds to fight against the hyperreal. As a result, the body is the last front fending against the simulation-controlled hyperreal, and holds the path and the last possibility to go beyond it. After this transformation that the real has become the hyperreal, however, the real is not the same any more, and neither is the way one understands it. As I argued in the last subsection, the real has become more embodied-oriented, instead of material-oriented, while the imaginary is not necessarily an opposite. Rather, the real and imaginary are overlapping and intertwining with each other. In this sense, the case of the avatar and online games are good examples. From my analyses in chapter1 and in the last subsection, online games can be considered as shared fantasies realized and intensified by cybernetics techniques, from which authentic feelings and experiences are aroused and shaped in the course of playing. It means that reality is not necessary to arouse the sense of the real. As a result, the opposition between the imaginary and the real has been broken. Just to be clear, using the phrase "the sense of real" does not mean that I attempt to blur the difference between the real and the sense of real. What I am focusing on is still the notion of, and the working way of, the concept "real".

What does it mean to our comprehension of what the real is, if the sense of real and real actions one makes can be triggered by simulation? If the dominant principle of the world has shifted from the reality principle to one of simulation, the gap between the real and reality is also expanded and magnified. Although Baudrillard argues that there is no real any more, Kingsepp's research on death in games is a fatal attack on his theory of the hyperreal.

I argue that the real has become a process of one's embodied experiences, including one's feelings and actions. The imagination is not purely oppositional to the real, but is also changing. A new dimension of the capability of imagination is developing and flourishing that is the imaginary about identity, about who I am, and then who we are. Additionally, this new identity-dimension of the imagination has been foregrounded, and is specifically engaged in the process of identity shaping, and therefore of acquiring things to be the real.

Therefore, one needs to stop asking the question of what is real, what is virtual, and where the distinction between them is. What deserves to be asked and explored is the former part, namely the real. This subtle change is not only a

difference in terms of epistemology, but also opens the door to multiplicity and possibilities, rather than towards a single opposite pole.

2.3 Embodied Imagination and Identity

Before starting this section, I would like to make an outline of the previous arguments, by subordinating all those key terms involved in the last two sections to form a bigger picture: imagination, simulacrum, medium/mediation, and the body. They act as nodes to link and contour the whole structure, especially the connection between imagination and identity, surrounding the core term "avatar".

The avatar, as I argued in chapter 1, is a simulacrum, a process of performing within a shared fantasy world that is realized by modern technology. On the one hand, the avatar is one kind of simulacra with a feedback loop system as its core mechanism, (see section1.1.3) which offers three potential paths of theoretical establishment. Firstly, it leads to mass media, especially digital new media studies, and then to the theory of a network society and a mediation/ mediality perspective (see 1.2.2-1.2.3). Secondly, the synchronicity between the player sitting in front of a computer and the avatar on the screen breaks the entity of space and time, and, accordingly, changes the way one deals with the issue of boundaries from "boundary-crossing" to "boundary-blurring" (see 1.2.1), thereby subverting most of the existing theories. Thirdly, this synchronicity also foregrounds the role of the body as the unique key to all these new questions and issues, after the break-down of the traditional space-time frame (see 1.2.3).

On the other hand, the avatar is a simulacrum of human life, which leads to another insight dimension. That is concerned with the issue of the real and the virtual, as well the faculty of imagination as the bridge between them. As one kind of simulacra, the avatar is the product of imagination, although Baudrillard insists that since the third stage of simulacrum, there is no room for imagination. Nevertheless, the "shared fantasy" game world that the avatar inhabits is a product of imagination, and an environment for continual reproduction. So, how is it possible that the avatar has nothing to do with imagination, even if it "lives" in a world built by, and working with, fantasies? Based on internet technology, especially the feedback loop mechanism, the avatar acts as a new type of simulacrum that is totally different from other traditional kinds, such as a character in a novel (see section1.1). Similarly, the relationship between the avatar and its player is much more complicated than the relationship between a character in a novel and a novel's reader. Intertwining with the point of shaping the network society, the relationship between these two spaces, namely the real world and the virtual cyberspace, is

worthy of further study, since everyone is engaged in both spaces in the information era. In a similar vein, the relationship between simulacrum and its original can be seen as an analogy of it.

This section is divided into three subsections. The first subsection starts with a discussion about the relationship between the imagined virtual world and the physical world, in order to establish a structural background for the following argument about the issue of identification/ identity in cyberspace. On the one hand, I elaborate that, due to the simulacrum nature, an avatar has the capability of crossing through the physical world and cyberspace, and consequently integrating them into a new world. On the other hand, the most fundamental and strongest attraction of being engaged in online activities, including online social network and online game playing, lies precisely in the possibility of shaping and renewing identity, which is made possible by the simulacrum nature of an avatar. The simulacrum nature of the avatar and the issue of identity/identification are strongly connected to each other.

The second subsection focuses on how the process of identification takes place in cyberspace. By discussing Bottici's perspective, from which she raises an impasse where imagination is considered as an individual faculty, while the imaginary is a social context-oriented approach, I argue that the embodiment theory as a principle offers a solution to this so-called impasse by getting through the boundary between the two of them. Furthermore, by applying the Lacanian "mirror stage" theory to observing the process of identification for players in cyberspace, I confirm not only the important role of the embodiment principle again, but that neither online identity or offline identity can be isolated from each other. Put simply, there is no pure online identity or offline identity; instead, there is only an entity of identity that is continuously shaped and transformed by online and offline facets.

The third subsection looks at the shift from "our-ness" to "me-ness" in cyberspace identification that emerges from the analysis in subsection 2, as some scholars' work has already pointed out this tendency. Additionally, I would like to consider the emphasis on "individuality" as a characteristic immanent in the embodiment principle.

2.3.1 **Embodied Imagination: the Power that Integrates Two Worlds**

This subsection starts with a focus on the relationship between the virtual world and the physical world, in order to explore the new world one is living in and the new situation one is faced with. In the next step, I discuss the potential way one lives their life and understands who one is. In other words, I explore the new way in which one identifies oneself in a world that is becoming much

more complicated, multiple-layered and dimensional. To do so, I first come back to the simulacrum nature of the avatar. As Harold Morowitz points out, the twenty-first century is witnessing a move away from the study of relatively simple systems that can be modelled by equations with explicit solutions to complex adaptive systems that resist mathematical formalization and can be studied only through computational simulations (Hayles, 2010, p.152-153). Speaking of simulacra and simulation, the relationships between the simulacrum and the original model, between the real and non-real, are always involved.

I argue that an avatar is a combination of simulacrum and performance. By breaking down the traditional time-space limit, the emergence of the avatar redefines what "real" is, and consequently evokes the need and possibility of a new identity in the new world. This need and possibility are the premise and background for my exploration of identity and identification.

Instead of analyzing and repeating theories about simulation and simulacra, here I use David La Rocca's work as a counter-example, followed by a discussion on rethinking "real"/ reality and the role of the imagination. In his essay *The False Pretender: Deleuze, Sherman, and the Status of Simulacra*, David La Rocca discusses the nature of photographs, and in particular, the question of whether a photograph is a simulacrum or a copy[①], by focusing on Cindy Sherman's work. I have chosen his work as a counter-example to analyze for two reasons. On the one hand, I see a photograph as a transitional form between a character in a novel and the avatar. This transitional position of a photograph links La Rocca's work to mine. In the meantime, he raises a few very important questions I would like to discuss, but gives totally different answers to them than I do. La Rocca moves away from and then ignores a fundamental element – the body, which I see as the source of the answer to both his questions and mine. Thus, La Rocca's argument is problematic, but still inspirational.

My analysis is two-fold: concerned with the source of the confusion caused to the audience, while related to the relationship between the simulacrum and the copy, and consequently, the issue of rethinking the "real".

In the first step, I pay attention to the source of confusion, or in La Rocca's words, indeterminacy, of whether the image is a copy or a simulacrum, or in other words, it is documentary, staged, or forensic. Cindy Sherman's photograph Untitled 153, which is the research object of La Rocca's essay, is an image of a woman lying on the ground and acting as a corpse, played by Sherman herself. La Rocca (2011) stresses the confusion caused to the audience when they are looking at this photograph, and points out that "the

[①] I use the term "copy" in the way Deleuze uses it in *The Logic of Sense*. The copy refers to good copies which are always "well-founded", and is distinguished from bad copies (simulacra) . See *The Logic of Sense*, p.257.

indeterminacy of the image as a copy or a simulacrum raises the possibility of a new space of the simulated: one that requires that both aspects are in play" (p.322). Then, he argues that this photograph is both a simulacrum/false pretender in terms of its content – a women who is alive and acting as a corpse, and a copy/icon as a verisimilar photograph in spite of some inevitable distortion and effects of the camera's optics.[①] Furthermore, by referring to Ludwig Wittgenstein's discussion of aspect seeing, La Rocca claims that "the copy and the simulacra are two co-present, though not always coperceivable, dimensions of representational space" (p. 326).

La Rocca raises a very important question of the relationship between simulacra and copy, and between simulacra and the original model, but he ignores the fundamental element - the human body - that I consider as the source of the audience's confusion. Consequently, his conclusion is inevitably disembodied and inadequate, and ends up as two "co-present" aspects. A disembodied conclusion - in other words, the binary opposite thinking pattern - reveals that he understands these two properties have been intermingled into the same body as two separated parts.

Linking to the mediality of the body that I previously analyzed (see section1.2.3, 2.1.3), I argue that the embodiment principle should be highlighted in analyzing the simulacra and the copy in the condition that the human body is engaged in. Here, it is obvious that the body is the pivot and agent that mediates different understandings that cross different domains. Not only does this mediality cause the so-called indeterminacy, but also goes through the traditional time-space structure deterritorialized and reterritorialized by the capability of boundary-blurring. In the case of Sherman's photograph, it is precisely the body that is the source of the confusion, because the body is an agent that makes Sherman simultaneously the object of the image and its creator. Sherman's physical body is simultaneously material and representation, the represented and the presenter, the pretender and the object of pretension. Put simply, the capability of integrating these two functions into one human body causes the confusion, or in La Rocca's words, the indeterminacy. For instance, when they are looking at a photograph of a landscape or flowers, the audience will not become confused as to whether it is a documentary of a natural scene or a designed garden. There is also an indeterminacy of photographs of a landscape, but the point is that nobody cares. Furthermore, imagine what happens when people are watching a theatre performance. Even if the actor is lying on the ground in the same way that Sherman does, the audience knows that it is performed by an actor instead of a real corpse at a crime scene. They will not be any confusion, due to the context of the enactment. The first example shows the difference between the body of other materials and the body of a human being, while the second

[①] In this essay, La Rocca refers to both Deleuze's and C. S. Peirce's theories about simulacra, and challenges both. According to La Rocca, Deleuze uses the term "copy' the way Peirce uses "icon', so La Rocca uses both terms in this single essay and inevitably causes some confusions.

example reveals the limit and influence of a time-space structure and a traditional cultural context, if the theatre stage can be considered as a cultural and time-space framework.

So, what is the relevance to my research on the avatar? Sherman's work can be seen as one transition between different levels of simulacra, particularly between the characters in a novel and the avatars. I have already discussed two characteristics of Sherman's photograph, which are the embodiment principle and the non-time-space nature. For the avatar, the embodiment principle functions in a more complicated way, while the non-time-space nature turns to a real-time, temporary, and network-oriented structure. Different from Sherman's photograph in which the embodiment principle is embedded in her body, in the sense of representation, the avatar illustrates the embodiment principle in a multiple-layered way. Linking to my argument about the "three bodies" in the course of online game playing, the avatar's body has become a mediate "object-subject" that sees and is seen (Sobchack, 1992).

In 3D first-person games such as World of Warcraft, when the avatar moves or even turns around, the environment changes accordingly. The player has to adjust the direction of action in accordance with the avatar's every single movement, otherwise the avatar would be stuck on rocks, shrubs, or other barriers, or the attack that the avatar casts could not be aimed at the targets. This makes the way in which the players recognize and locate themselves in the virtual game maps and environments as vivid as that in the real world. Players see through the avatar's eyes, and act, jump, run, or fight through the avatar's legs. For the avatar, the embodiment principle works by integrating the multiple layers of the body into one player. In the meantime, integrating a multiple-layered body empowers the avatar with the potential to move forwards and backwards through these multiple layers that are located in different environments and worlds respectively, namely the virtual world and the physical world.

It is justified to say that, due to the existence and integration of these "three bodies" in the course of a game, two worlds, the virtual world and the physical world, are evoked and thrilled by and for the human-playing avatars. Every time a player logs into an online game, it is an adventure to pass through and integrates these two worlds. Considering my argument about the function of the faculty of imagination to the advent of the avatar, it is also justified to say that the resultant force of human imagination and technique integrates these two worlds into a new one. The avatar is a mere example of this integration. The world that is constructed by technology and digital communication is definitely crafted, or as Castronova (2005) names it, "synthetic". Additionally, "decently immersive virtual reality spaces [are] practically available to just about anyone on demand" (p.4).

What about the new world, the one temporarily shaped and ended every time avatars log in and out, where the new one, in some sense, is like a tunnel stimulating those two worlds? To reiterate, I would rather call this temporary, network-oriented world the "integrated world", while the faculty of imagination and the power of technology work together to shape it.

Then, the question of "who am I", which is the oldest question has been repeatedly asked since the day human beings started to think, comes back in a new environment. The issue of identity/identification is evoked and constitutes the background, and then justifies my whole research. Coming back to the indeterminacy caused by Sherman's photograph will be helpful to understand the key points. As La Rocca concludes, the indeterminacy is centered on if Sherman's work is documentary, staged, or forensic. Put simply, the indeterminacy is about the identity of this photograph, and about how to identify Sherman's work with categories people are used to.

In the case of the avatar, what makes millions of players devoted to and even addicted to online games is the temptation or desperation coming from the possibility of realizing the shared fantasies and having new "abilities". For example, as a night elf, a magic attack is possible, and new networks can be developed and participated in. In a word, the temptation is that of having a new identity.

On the one hand, some scholars emphasize the enjoyment of the games. In their work about game players, Neys et al. (2014) use the term "persistence" to indicate "the actual experience of wanting to continue playing a particular game in the face of insufficient reward" (p. 200). Based on a large-scale survey, they points out that Casual and Heavy gamers are "motivated to continue to play as a result of both the feeling of enjoyment and a sense of connectedness. Hardcore games are more intrinsically motivated through enjoyment enhancing their levels of persistence accordingly" (p.196).

On the other hand, some scholars like Daniela Merolla look at how imagination, even in offline life, is connected to group identity. As Merolla (2005) points out in her work, "A revolutionary slogan of the late 1960s, 'límagination au pouvoir', linked imagination with the power of changing the world…. The 1960s are over, but the power of imagination has taken a central place in studies of group identity" (p.217). She claims that "anthropological, literary, and cultural studies have shown that imaginative expression indeed plays a pivotal role in identity construction as it creates intellectual sites of exchange, new kinds of audiences, and new forms of social and political imaginings" (p.218). Regarding online game playing, Marinka Coiper also points out that "role players create a shared fantasy in which they not only form their characters, but through which they also conceptually blend conventions, identities, and interpersonal relationships" (2009, p.168).

To sum up, there are two points to be made for the above argument: the likely body of the avatar, and the capability offered by technology of breaking the space-time boundary. The body on the screen is simultaneously a false pretender, because most of the avatars appear unlike human beings, such as a night elf or a Tauren, and a good copy, as it acts in the same way or even better than an ordinary human body, for example, by having magical skills. Furthermore, the human body's involvement invalidates the difference and hierarchy between the simulacrum and the original model, whereby transforming the hierarchical structure into a node-centered one. The fact is every player knows their avatars are not their own bodies, but nobody cares about it. In the meantime, the involvement of the body, precisely the reunion of the flesh and the mind, makes a player become a boundary-crosser. However, this time boundaries are not only distinguished by real/virtual, and based on a time-space criterion, but also lying between me and others, thus presenting a different facet of the self per se. Significantly, this change makes the issue of identity/identification more complicated and important than ever before.

Last but not least, the capability of passing through different spaces and contexts evokes the issue of rethinking the "real"/reality as well. Coming back to Sherman's photograph again, although the audiences feel confused about whether this photo is documentary, staged, or forensic, they do believe that what they are looking at is a real body of a real woman. The indeterminacy is caused, in part, because this photograph is only one piece of an image abstracted from its context, on the basis of which people used to understand and interpret things, in particular the original intention of Sherman, in a so-called "real" and, accordingly, "right" way. Contrary to what happens in Sherman's work, every player knows that the image of the avatar on the screen is not their own body, as most avatars do not look like normal human beings. For instance, in World of Warcraft, there is no possibility that a player who chooses Tauren as their avatar will confuse this cattle-headed body with their own body, but thanks to the ability of imagination, playing can be started and continued. Not to mention the fact that a player is sitting in front of a computer with a mouse in their right/left hand, while the avatar is moving on the screen.

Differences in appearance of human beings and avatars, and in the spaces they are located, constitute a specific context of game playing. This context is real-time, temporary, nodal, and network-oriented, and totally different from the traditional time-space framework. In short, every player knows they are playing something that does not constitute one part of their physical body. In this sense, an avatar is definitely a simulacrum, or in other words a bad copy. Then, in the case of the avatar, the question with which a player is confronted is how to understand and define "real" in the condition that player can shuffle between or through avatars.

2.3.2 A "Mirror Stage" in Cyberspace

For online game players, their persistence with games they play comes from the possibility of establishing a new identity, whereby performing a new character and socializing with another players' avatars in a network. This new identity is not distinctively separated from the one that players already have in their daily life within the physical world. Instead, the process of shaping and constructing this new identity must be continuously influenced by and influencing the existing one. As an entity might have multiple layers, a renewed identity is acting as an entity that performs differently in diverse environments in a schizophrenic way. However, for the sake of elaboration and being focused on the avatar, I will discuss the identity developed in online activities[①] and offline activities, respectively, and pay more attention to the former, as well as focusing on the way in which online identity is influenced by and influences offline identity.

The Lacanian Mirror Stage theory significantly matches the process of a novice player who for the first time logs in a game or a social network, while self-determination theory makes a contribution to construct the entity of identity as well. Accordingly, in the first step, I look at the process of identification in the context of online activities by referring to a combination of both the Lacanian theory of Mirror Stage and the self-determination theory. Then, I briefly summarize some outcomes of studies on online game playing from a social scientific perspective, and integrate them into the self-determination theory, in order to outline a structure of categories of online game identities.

The Lacanian theory provides the very important term "imaginary" to develop the theory of identification. I would like to adopt this to establish my argument in this subsection, but firstly I need to outline its connection to the term "imagination", the concept I have used as a key term in my previous writing. Chiara Bottici (2011) summarizes the relationship between imagination and imaginary as oppositional. By exploring the knowledge background of these two terms, she locates the theory of imagination as a subject-oriented approach, while imaginary is a context-oriented approach. An unsolvable tension between them emerges: if one moves from the idea of imagination as an individual faculty, then the problem is how to explain the impact of the social context, or vice versa (p. 56, 57). She warns us that focusing too much on either dimension can "fall in an equally problematic metaphysics" (p.63). As a result, Bottici turns to another term "imaginal", which is borrowed from Henri Corbin's theory, to "go beyond the current impasse of the opposition between theories of imagination as an individual faculty" to "produce images", and "theories of the imaginary as social context" to structure politics. The tension and impasse she

[①] Here I use "online activities' to indicate usage and activities in both MMORPGs and online social networks like Facebook.

points out is exactly concerned with how the individual acquires access to social politics. Within the framework that views imagination as an individual faculty and the imaginary as a social context, imaginal is defined as "what is made out of images, an adjective denoting something that can be the product of both an individual faculty and a social context. Simply put, "imaginal" is "the quality of a product that stands in between the two" (ibid).

I do not entirely adopt Bottici's theory for two reasons. On the one hand, we have already had too many similar terms which are frequently confusing. On the other hand, the term "imaginal", namely the solution to this impasse, can also be seen as a process product of imagining, and as an analogue of the "gaming body" among the "three bodies" theory. Additionally, she discusses imagination and the imaginary without taking the human body into account. Although Bottici keeps trying to avoid "the traps of a philosophy of the subject" in her elaboration (p.58), is her attempt still a sort of problematic non-metaphysics, which is based on the same logic as metaphysics works? Instead of considering the relationship between imagination and the imaginary as an impasse, I tend to see it as a question that evokes the embodiment principle as a solution. The term "imaginal" is merely a transitional concept to suspend the theoretical structure behind it, irrespective of whether it is emerging from a subject-oriented or context-oriented theoretical perspective.

Thus, I argue that both the faculty of imagination and the imaginary are centered on the human body, through which the two are connected and fused. It is not necessary to separate one from the other. This is the same way that I understand the issue of identity. When the embodiment principle is recovered, the impasse Bottici raises is merely a problem about how to deal with the different dimensions of human imagining, as well as how to integrate them both into the same person, instead of separating one from the other.

I now turn to the Lacanian theory of "mirror stage", because this theoretical structure takes into account the human.

I would like to review the term "imaginary" first. This is one of the three "orders" - imaginary, symbolic and real - in Lacanian psychoanalytic theory, and is always connected with identification. As Elizabeth Wright (1992) summarizes, the imaginary is "a belief in images that cover over the veiled object that promises JOUISSANCE"(p.173). This phrase of imaginary is prior to castration and is an access to the order of language and difference. The imaginary arises from the process of identification that the infant makes in the mirror stage by attempting to unite the split subject into a whole entity, which is, sometimes, based on a miscognition of consciousness.

Departing from the Lacanian perspective and considering cyberspace as a bigger mirror to the physical world, the "mirror stage" vividly describs the situation every player faces when they log into a new game for the first time or create a new account on a social network like Facebook. A newly created

avatar, with a new nickname, a new gender, a new profile and resume, or nothing but a blank, can be seen as an newborn infant in this new environment, even though the physical player per se is an adult. One needs to be identified in the new environment again, just as a real infant in the real world. Not only does a player have the screen as the substitute of a glass mirror, but also has other players' avatars and the network emerged within them as symbolic mirrors. Put simply, not only does a player go through an individual-oriented "mirror stage" happening between an avatar on the screen and the one sitting behind a computer, but also experiences a continuous social network-oriented "mirror stage" between their avatar(s) and those of other players. For the avatar, the process of identification happens and is still happening on both levels - in Bottici's words, on the levels of both imagination and imaginary. As a result, the so-called impasse is broken down, and a possibility of fusing both imagination and imaginary, both the individual-oriented approach and the social network-oriented approach is realized and continually reproduced.

Unlike the process of an infant's first look at their figure in the mirror, in the case of the avatar, what is seen and going through is not an image of the physical body but the embodied identity. As previously stated, every player knows the avatar on the screen is not theirs body, so the process of identification is initially happening on a symbolic basis, the second order of the Lacanian structure, and therefore, on the basis of existing experience and identity. This is a reproduction and re-identification on an individual level in the first place. It does not mean that this process of identification in cyberspace has nothing to do with the body. Indeed, it is still concerned with the body, but it is about how to tell and deal with the issue of "real/virtual" which emerges and is represented by the two bodies in different spaces, rather than accepting the image in the "mirror" as an authentic self without any doubts. This change in identification brings the order of "real", which is the third and highest order of the Lacanian structure, to the fore. As a result, in this sense, the cyber "mirror stage" does transform this linear order into a multiple-interactive one. This process also suggests that there are not two separated identities existing in different types of space. Instead, there is only a process of de-identifying and re-identifying, a process of interaction between different layers, through which an embodied identity establishes and is established.

Nevertheless, this process of the "mirror stage" in cyberspace can also be seen as anti-imaginary, and an anti-mirror stage activity. Opposite to shaping an identity by uniting, in cyberspace, the subject splits, since the person who enters cyberspace is not an infant any more but a subject. In this sense, the process of identification in cyberspace is one of mixing imaginary and anti-imaginary, a process struggling between identification and de-identification. Consequently, the "mirror stage" in cyberspace precisely deconstructs the Lacanian "mirror stage" itself.

To sum up, by applying the Lacanian "mirror stage" theory to the issue of online identification, two consequences emerge. Firstly, the combination and inter-influence between an individual-oriented imagination and a social network-oriented imaginary finds a solution to the so-called "impasse" (Bottici, 2011), which is caused by the opposition between them. This solution is the embodiment principle. Secondly, in the same vein, not only does the process of identification in cyberspace work simultaneously in the Lacanian and anti-Lacanian "mirror stage" way, but also integrates the online and offline identification into an entity. Furthermore, regarding the issue of identification and identity, a shift from "our-ness" to "me-ness" should be observed by foregrounding a dimension of "real/virtual".

2.3.3 **A Shift from "Our-ness" to "Me-ness"**

Hitherto, I have demonstrated how the Lacanian "mirror stage" theory functions and transforms when it is applied to the process of identification during online activities. It leads to the theme of this subsection, that is, the shift from "our-ness" to "me-ness" happening in the process of identification in cyberspace. My assumption is that this shift has not only been suggested by some research outcomes, but is also immanent in the embodiment principle.

For many people, such experiences challenge what they have traditionally called "identity," which they are moved to recast in terms of multiple windows and parallel live. Sherry Turkle (1999) points out that "online life is not the only factor that is pushing them in this direction; there is no simple sense in which computers are causing a shift in notions of identity, It is, rather, that today's life on the screen dramatizes and concretizes a range of cultural trends that encourage us to think of identity in terms of multiplicity and flexibility" (p.643).

From the perspective of a network society, the need to identify oneself in this rather "synthetic" world, and therefore the identity issue, is raised again. On the other hand, the faculty of imagination, as a co-operating element of the avatar, develops a dimension of imagining "who am I" and then "who are we", or in a Lacanian term, a process of imaginary in terms of identity/identification. Some scholars' research shows that the pattern and result of negotiation could be and is very individual, depending on the player's personal hobbies and understanding of the rules and the "magic circle".

In their research on game players' game-originated romance, Huynh et al. (2013) raise two core issues, the role of "emotions" and the individual perspective of understanding the boundaries, to explore the unique way in which people develop their relationship with others. Observing that these two

core issues are inter-dependent and interweaving with each other, they argue that "the line between play and life is blurred when the emotions elicited in a life narrative can be recreated in a play narrative" (p.256). They state that it is reasonable to argue that each individual has a different "thickness" and "thinness" regarding the different "magic circles" that are constructed for various aspects of their in-game relational experience (p.260). Thus, an individual may construe a "magic circle" for each aspect of their relational experience in the game world, such as: emotions, romance, friendship, etc., and each may take on varying levels of permeability for different players (ibid). It is justified to argue that different players hold different understandings of a "magic circle" and of what is real and what is virtual, and accordingly deal with the boundary between the real and virtual on their own way. In other words, emotions, rather than rules are the motives for and consequences of negotiating with other players and bridging different spaces. What is forming from their modest and unassured conclusion is the tendency of the change of identification – shifting from "us/our-ness" to "me"; from a more collective perspective to a more individual perspective.

Additionally, I view emotions as evidence of the embodiment principle. If the embodiment principle is emphasized, the idea of difference is emphasized as well. Then, in the case of the avatar, individuality should also be highlighted, because every player has their own emotion and specific way to deal with the relationships and networks in online activities and identities. Furthermore, in the process of identification and dealing with the online social network, a dimension of "real/virtual" has to be taken into account. As a result, the first question for every player who enters cyberspace should be: who am I, or which me is real and reliable. This question is foregrounded by the intervention of the "real/virtual" dimension, and is very much individual. As Deleuze points out, individuality does not lead to the "I" or the "Self" but to "the system of the dissolved Self" (Wong, 2014, p.109-110). The tendency of dealing with this dissolved self first, in turn, brings about the tendency of "me-ness".

Chapter 3

Three Bodies: the Invisibly Corporeal Body, the Visibly Imaged Body and the Functioning "Gaming Body"

3.0 Introduction

In the previous two chapters, some infrastructural work for the whole dissertation has been done. In chapter 1, I elaborated on three significant characteristics of the avatar through a comparison with the character in a novel, followed by an outline of the consequences caused by them. These three characteristics of the avatar are: the integration of the imagination and cybernetic technology, the capacity of negotiating with massive multiplayers through their avatars, and the feedback loop mechanism which technically supports the real-time interaction. Significantly, the third one distinguishes the avatar from characters in a novel and other traditional simulacra, and leads to the synchronicity perspective. In chapter 2, I pointed out that there is an "epistemological turn" in terms of theoretical knowledge triggered by the emergence of cyberspace and in particular the avatar. I developed my own understandings of boundaries and the relationship between embodiment and disembodiment, by highlighting the embodiment principle and referring to the Daoist theory. I concluded this "epistemological turn" as a pattern of "Re…ING", which indicates a continuous process of deterritorializtion and reterritorialization. On the basis of this perspective, it is necessary to scrutinize the issue of identity/identification accordingly, in particular the traditional categories for identification, such as the body, sex, and gender.

This chapter carries on analyzing and exploring the first category I listed above, namely the concept of "the body", including changes in its notion and the ways in which it is comprehended and is functioning.

I would like to make some clarifications and some points before I start this chapter. The idea of synchronicity, adapted from computer science, used here as a theoretical perspective as well as a specific information technology. It is worth noting that embodiment and synchronicity are the two theoretical anchors in this chapter. Put another way, this chapter discusses the body from both embodiment and synchronicity perspectives. I will demonstrate that how different bodies with different existing forms inhabiting different spaces are synchronized, thereby updating and changing the concept of the body, namely a core category for identity/identification. As a result, it is not necessary to engage in the discussion about the relationship between the mind and the body, because, as I will show, in the case of the avatar, the mind and the body are also synchronized. Thus, it is not necessary even not possible to distinguish two of them, let alone the hierarchy between them. In this sense, synchronicity does

lead to and realize the fusion of the mind and the body as well as illustrates the process of embodiment.

As indicated in the title of this chapter, the key terms of "invisible" and "visible" not only echo other two key terms of imagination and the embodiment, but also suggest the relevance to Maurice Merleau-Ponty's phenomenology which will also be referred to through an analysis on Sobchack's theory (1992) on embodiment vision. Additionally, Elizabeth Grosz's corpus on virtual and real space is also taken into account. In particular, her argument on the body and her reflection on how to understand the relationship between the mind and the body will be employed as a starting point of my following analysis. That is, "we don't just have bodies but are bodies", then "there can never be the threat of displacing body in favor of mind or abandoning the real for the virtual." Rather, "cyberspace, virtual worlds, and the order of computer simulation– whether imagistic or computational" – show that our notions of real, and of body "need to be complicated and rethought to accommodate what they seem to oppose" (Grosz, 2001, p. 85).

My assumption is that, with the intervention of technology, especially information technology, the body has become an assemblage[①]. This shift not only in regard to the existing forms of the body, namely the three bodies emerging from in the course of online game playing, to which I will elaborate in subsection 1 and 2; but also to the way in which every single body lives, and every organ, body part and its faculty and sense works and co-works. In the account of existing form, that the body gets the capacity of being invisible and physically absent[②](see section 2.1.1), generates the functional "gaming body", and then the body as a concept has become an assemblage. It is constituted by differently dimensioned bodies, among which the embodiment principle is indeed embodied, situated and indivisible. In this context, flesh is embodied, but being embodied can have more way of implementation. In the account of the body as a relational entity, for every single body, the relationship between organs, body parts, senses, and the general concept is not the part-entity relation anymore. Rather, it is assembled, configurative, which means that, in some conditions, the body allows for the replacement and changes in different organs, parts and senses. Accordingly, the concept of the body also needs to be updated. The body, I argue, should be viewed as an assemblage that is configured and activated by life dynamic, which changes not only the way in which identification is processed, but also the context of thinking and identification that I would like to call a coordinate-shaped frame.

[①] In this chapter, some refutations about wholeness or totality of the body, as well as another key term "mediation/mediality" that Wegenstein emphasizes in her work, will be discussed. In order to avoid any unnecessary confusion, I would like to use the term of "assemblage" rather than the "whole" to describe and define the new changes in the body.

[②] As I have discussed in chapter 1 and 2, I prefer to describe the changes in the body, that is triggered by the emergence of digital technology, as "the capacity of being invisible or physically absent", instead of "to disappear".

To this end, my argument will unfold in three steps. The first section looks at the contemporary theoretical exploration about the expansion of the physically flesh body, in particular theories of Vivian Sobchack (1992) and Bernadette Wegenstein (2006), in order to underpin the embodiment principle. In my view, both theories form a genealogy of the gradual process of the embodiment principle through the study of vision and skin respectively. In this sense, their theories can be viewed as anticipation of the situation and circumstances that the avatar confronts and the embodiment perspective functions. Significantly, Sobchack's concept of the "film's body" precisely legitimizes the avatar as a "body" instead of an image on the screen, thus inspires and opens the door to my following argument of the "three bodies" theory.

In the second section, I elaborate on the theory of the "three bodies", by applying the "film's body" theory of Sobchack, as well as introducing the synchronicity perspective into my own research on the avatar performance[①] in game playing or online communications. I argue that the concept of the body has become an assemblage configured and activated by life dynamic, while this assemblage is constituted by these three synchronized bodies: the physical and flesh body sitting in front of a computer, the imaged body moving on the screen, and the process body that I would like to call the "gaming body". The emergence of the gaming body does illustrate how the first two bodies interact and cooperate with each other on the one hand. Meanwhile, as an invisible and untouchable functional body, the gaming body can be viewed as the embodiment principle *per se*. Significantly, one of the major consequence, related to the issue of identity/identification, is that the external gaze has become a vision from "within". In the condition of an integrated world, the issue of identity and identification simultaneously becomes more singularity-oriented and more multiplicity-oriented.

The third section will take a step back, and look at the theoretical frame constituted by the perspective of "within", synchronicity and the "three bodies" theory, in order to push my exploration on the relationship between the issue of identification and the body further. I would like to map out the frame as a coordinate, a multi-dimensional coordinate structure accommodating both time and space. My assumption is that "within", in the condition of synchronicity, means within a frame of time and space, within a section and slice of the life dynamic captured by a specific moment, presenting the fusion of a human being and technology. "Within" this section, the specifically different dimensions of the body, are synchronized. The context of "within", namely the frame constituted by the time and the space, is not limitless, while death, as I have briefly analysed in chapter 2, sits at its origin point, the (0, 0). point of this coordinate-shaped frame. Based on this frame, an identity is shaping while the process of identification is taking place. Mapping out this frame also answers a

[①] I would like to use this phrase to indicate all activities that the avatar is involved, including online game playing, communication, and even offline gatherings or other events. As to the word of "performance", I tend to use it the same way as I did in chapter 1.

crucial question: if there are three bodies emerging in the course of online gaming, is it possible to identify each of them, and how? And further, how to identify an "I"?

Last but not least, since the body has become an assemblage accommodating multiple levels and dimensions, the structure of my following argument will be nonlinear accordingly (Braidotti, 2006, 2013). Instead, it will unfold as a multi-dimensional and multi-leveled landscape.

3.1 From the Eye, Skin to the Simulated body: A Gradual Process of the Embodiment Principle

This section proceeds with two issues I raised and briefly addressed in the previous two chapters: the concept of the "gaming body", indebted to Vivian Sobchack's thoughts of the "film's body" (see section 1.2.3), and the concept of the mediation of the body held by Bernadette Wegenstein (see sections 1.2.3, 2.1.1). In their brilliant work, both of them explore the limitations of the body and how to go beyond them, from their own perspective. For Sobchack, the perspective is the eyes and vision, while for Wegenstein, that is skin, haptic and mediation.

I would like to combine their work in this section because of the common concern they both share, which is, I propose, a genealogical path of development that anticipates the embodiment perspective. Or, in other words, their theories form a uncompleted trajectory of transformation from phenomenology to embodiment theory. This is not a linear path. Instead, shifting the focus of the research from eye and skin, to the avatar, what is emerging is a scattered map illustrating the trajectory from body organs, namely eye and skin, to the whole body. Borrowing Deleuze's thought, they form a limited "new image of thought"(2004). "Limited" does not necessarily mean the finitude of the embodiment principle, rather, it means that this area is still developing and waiting for further exploration. In another aspect, their work also creates a complementary tension between traditional art, philosophy and new media theory influenced by technologies. Although technology has become one important element of film research, it is still not the focus of Sobchack's theory. In Wegenstein's work, however, technology, in particular technological disembodiment, is one fundamental ingredient and the opposite side against embodiment. Therefore, she employs the idea of mediation to bridge these two sides. As Mark Hansen(2006b) writes in the Foreword of her book, Wegenstein's appreciation for historical stages in the history of the body as a history of mediation is uniquely informed by the digital revolution.

Nevertheless, their theories will not be entirely adopted to my own research understanding. As Sobchack's makes cinematic representation a priority to electronic representation, by arguing that electronic representation "diffuses the fleshy presence of the human body and the dimensions of that body's material world" and "tends to marginalize or trivialize the human body" (Crick, 2010, p.2). Here, apparently, is a priority or hierarchy between material/materialism and disembodiment, but it reverses the traditional hierarchy that the body is submitted to the mind, hard science and technology. As to Wegenstein's mediation theory, by radically arguing "the medium has become the body" and over-emphasizing the mediation process, the flesh nature of the body is somehow ignored, or at least marginalized. It echoes the summary Mark Hansen makes, that "disembodiment itself paradoxically becomes an irreducible dimension of embodiment" (2006b, xiv). I have disproved it in chapter 1.

Sobchack's theory, especially the concept of "film's body" and "film subject", opens the door for game studies, raising the possibility of applying film theory to gaming research in an integrated context which combines phenomenology perspective and digital technology. This combination context has the capacity of accommodating both film and game, linking those theories I mentioned above to my research on the avatar, more directly. Accordingly, after elaborating on these two theories in subsection 1, I turn back to the context of game studies in subsection2, to explore the potential and limitations when Sobchack's thoughts of "film's body" and "film subject" are applied to my research on the avatar.

My analysis will be carried on with this sequence. I will pay more attention to Sobchack's theory, not only because Wegenstein's theory has been discussed before, but also because the idea of the "reversible vision", and her point of view about considering the camera as an object-subject, are very inspiring for my thinking.

3.1.1 Eye and Skin, Vision and Haptic

In this subsection, I deal with two intertwining dimensions towards the potential of transformation that lies within Sobchack and Wegenstein's theoretical work. I put their theories together for two reasons. Firstly, both Sobchack and Wegenstein start their thinking from one organ of human body and its faculty. For Sobchack, it is the eye and vision, while for Wegenstein, it is skin, haptic and then cognition. This similarity creates the foundation of my assumption about the genealogy of the embodiment principle. Secondly, they both not only pay attention to the term of "mediation", but also share Merleau-Ponty's phenomenology of perception as an important theoretical source. Indeed, the different extent to which they adopt Merleau-Ponty's theory

determines the approach they choose respectively, and the potential and limitation of it. For Wegenstein, a new perspective combining feminist theory and technological development has emerged and has acted as equally important roles as phenomenology. For Sobchack, phenomenology of perception is the solution to the dilemma caused by the contemporary theoretical ground of cinema studies, namely Marxist theory and psychoanalysis. Considering this difference, Wegenstein develops her theory about mediation and mediality of the body by embracing feminist theory and technological perspective, while Sobchack raises her unique concept of "film's body" and "film subject", which has shown its potential of being applied to research on online games. Meanwhile, comparing their theories reveals the limitations of focusing on organs and their faculty, and, in turn, confirms the central role of the embodiment principle in the synchronized digital environments.

Connecting back to the idea of viewing the body as an assemblage, I argue that, the avatar, as a simulated body, adds a significant chain to the uncompleted genealogy of the embodiment theory, and then stresses the embodiment principle by highlighting the influences of technological intervention and human activities. This body is a concept assessed neither by the criterion of material/immaterial, nor by wholeness or fragmentation. Instead, this body *per se* has become an assemblage, and is working in a configurative way in which the embodiment principle, rather than mediation, crucially functions.

To this end, in this subsection, I would like to outline the uncompleted genealogy constituted by both Sobchack and Wegenstein's work first, followed by a reflection on it.

In the first step, I will start with the major similarity shared by these two theorists, namely their emphasis on the concept of "mediation", which has some relevance to the concept of "embodiment". Through a study on digital arts and architecture, Wegenstein sets her research on the mediation/ mediality of the body in a context where technology, in particular the digital revolution, acts as one essential ingredient. Without this context offered by the digital revolution, the mediation/ mediality of the body is impossible to be conceived. For Wegenstein (2006), as I have briefly discussed in chapter 1, mediation and mediality entail a new perspective to understand the whole history of the body, as well as the new situation the body confronts in the contemporary information era. She argues that the history of the body is a history of constitutive mediation, for which both fragmentation and holism are indispensable modes of imagining and configuring the body. It was not until the start of the millennium, characterized by the digital revolution, that the body was able to show best its real face: mediality (p.3). Here, she indeed embraces technology into her research and puts it, in particular the digital technology, at a very vital position. More than that, she clarifies that phenomenology and psychoanalysis constitute the theoretical basis of her insight into the mediality/mediation of the body. She also addresses the

essential role of the digital revolution, depending on which, she argues, the body is able to adapt to "a new form of wholeness that manifests itself as a multiplicity and plurality of mediative forms" (p.36). Simply put, she adresses that the new concept of the body would not be conceivable without the achievements of artificial intelligence and cognitive science on the one hand, and the feminist criticism of the resulting notion of disembodiment on the other. Both of these two aspects are caused by the emergence of the digital revolution in the late twentieth century (ibid).

Moreover, she argues that the scattered and dispersed way that the body has survived was concealed until the digital techniques reveal it. Since the body is always dispersed and scattered, the process of mediation and the nature of mediality are emphasized. On the basis of this point of view, Wegenstein considers the ideas of fragmentation and wholeness as different parts of the same process: the process of mediation. It means that, for her, mediation is the key process, while either fragmentation or wholeness is one contemporary section or outcome of this process. Since they are contemporary, this process also echoes Jean-Luc Nancy's claim about the body, "The parts of the corpus do not combine into a whole, are not means to it or ends of it. Each part can suddenly take over the whole, can spread out over it, can become it, the whole – that never takes place. There is no whole, no totality of the body – but its absolute separation and sharing" (Nancy, 1994, p.31).

Not surprisingly, Wegenstein states that "medium has become the body". For her, skin is sort of a boundary that distinguishes interior and exterior. Furthermore, in the context of space and time that she sets up for studying architecture, skin is the boundary between the real and the virtual, and the place where these two opposite sides are interfacing, merging, or, in her words, are mediated.

Similar to Wegenstein's focus on mediation/mediality by considering them to be the fundamental nature of the body, Sobchack also employs the term "mediation" to analyse the process of cinema watching, and then raises the unique concept of "film's body". For Sobchack, however, mediation is working to connect direct experience and existential presence in the cinema. Mediation always reveals there is an "other", and it is taking place between different subjects, in her case, between the viewer subject and the film subject, or in the course of communications.

The different attitudes and understandings about the concept of "mediation" that Wegenstein and Sobchack respectively hold, are caused by their different theoretical backgrounds and approaches. In addition to the term mediation, they also share Merleau-Ponty's theory of perception phenomenology as a theoretical source. For Wegenstein, this theory builds her theoretical basis along with psychoanalysis, while for Sobchack, it is the solution to the limitation and dilemma of the contemporary cinema theoretical structure.

Interrogating the eye and vision, in her research, aims to challenge the basis of the contemporary film theory which is constituted by psychoanalysis and Marxist theory. By revealing its deficiency and appealing to phenomenology, in particular Merleau-Ponty's perception phenomenology, she endeavors to rebuild cinema theory. According to Sobchack, Marxism tends to neglect the embodied experience whilst paying more attention to social relations and ideological objectives of the cinematic "apparatus" and its representations. Meanwhile, psychoanalysis is fine to disclose the "unconscious" aspects of patriarchal texts and the constitutive nature of an experienced "lack", but it is not fine for describing pleasure and plentitude of experience including but not limit to "sexual difference" (Sobchack, 1992). As for existential phenomenology, it is, as she explains in another book *Carnal Thoughts*, "philosophically grounded on the carnal, fleshy, objective foundations of subjective consciousness as it engages and is transformed by and in the world." (2004, p.2). Therefore, Sobchack opts for it, and aims to explore "the act of viewing and its relation to our being-in-the-world" (1992, p.54).

In this vein, it is not surprising that Sobchack starts her thinking from the eye and the sense of vision, considering that cinema is always related to the eyes, vision, watching and seeing. Additionally, as Elizabeth Grosz comments on embodying space, in terms of academic tradition, it is because that "vision is the easiest in many ways, partly due to the history of the photographic still and then the movie camera." (2001, p.15). In her seminal book, *The Address of the Eye: A Phenomenology of Film Experience*, Sobchack starts her thinking with film, putting the camera in center place of her theoretical structure. She claims that, "I must interrogate vision – vision as it is embodied, vision as it is performed, vision as it signifies, vision as it radically entails a world of subjects and objects to make sense of them and of itself as it is lived" (1992, xvii).

I would like to focus on some of key concepts Sobchack raises and coins, such as "film's body", "film subject", "perception-cum-expression" and mediation, and skip others, because her research is specific on cinema after all. It appears that all of these concepts are multi-dimensional, but they also are based on her fundamentally theoretical basis, namely phenomenology, which builds a relevance among all these concepts.

On the basis of phenomenology, Sobchack develops her unique film theory, claiming that there is a film presence or a "film's body", a "film subject" that experiences a world from a subjective perspective. This film's body is not to be understood metaphorically, instead, it is a functioning object-subject. "An act of seeing that makes it self seen, an act of hearing that makes itself heard, an act of physical and reflective movement that makes itself reflexively felt and understood" (Sobchack, 1992, p.3-4). As a result, this film's body differs from the other two physical bodies (filmmaker and viewer) in the material and mode of its embodiment, as well as its nature, coined by Sobchack, as "perception-cum-expression". That is "situated, finite, and – by virtue of being a body –

'centered' in a world, embodied existence is constituted as and marked by the intrasubjective and intersubjective exchange between perception and expression" (p.13). Based on this unique "perception-cum-expression", watching a film is "both a direct and mediated experience of direct experience as mediation". As viewers, we can "see the seeing as well as the seen, hear the hearing as well as the heard, and feel the movement as well as see the moved". "We watch them as a *visible performance* distinguished from, yet included in, our own" (p.10-11).

I would like to highlight these two inspiring concepts of "perception-cum-expression" and "film's body". On the one hand, both of these two concepts are generated on the basis of a primary and fundamental function of the eyes, namely the vision. As Sobchack writes, "as a modality of embodied perception, vision not only provides us fundamental access to the seen and visible world, but it also provides us fundamental access to ourselves – both as seen and visible subjects and as seeing and visual subjects" (p.98). By depicting and highlighting the cinematic reflexivity, the concept of "perception-cum-expression" makes another core concept "object-subject" understandable, and illustrates the way in which embodiment functions. That is, Sobchack explains, the act of reflection discovers its origins in the subjective body that sees and rescues the latter from anonymity and invisibility by re-cognizing and re-presenting it to consciousness – that is, thinking it as the body-subject who sees (p.97-98). On the other hand, vision, as a red thread, also has the capacity of going out of the film, and creating a connection with the audience through the process of "perception-cum-expression". Not only does the vision form the "film's body" which is an object-subject and simultaneously sees and is seen, but also expands the phenomenological principle to the audience which develops and fuses perception and expression into the same experience of watching a film. This expansion generates the dynamic within a circle that is constituted by the screen and audience, in Sobchack's case, it is a circle constituted by the screen of the cinema and cinema goers. This pattern of dynamic between screen and audience as well as the possibility of expanding out of one specific research field, also justify my following application of Sobchack's thoughts to analysis of the avatar and online game playing, to which I will come back in next subsection.

As for the second concept of "film's body", I would like to refer to Sobchack's argument about how her research with vision and the eyes points toward a phenomenological "manner of existing" that enables "being-in-the-world". According to her, we are aware not only of an experience, or of some "thing" seen, but also of an act of seeing. We are competent visual performers, capable of seeing not only as subjects of consciousness but also of making our own acts of vision objects of consciousness. Such a reflective performance is also reflexive (p.52). In this sense, the concept of the "film's body" can be understood as the subject of the film's moving images, a body that enacts perception in an equivalent way to a human viewing subject. It is neither the

camera nor the lens; neither the projector nor the screen (p.169). In hermeneutic terms, the film's body is a production of interpretation, a production of the nature of film that is a combination of simultaneously having sense and making sense by and for experience. Undoubtedly, her concept of the "film's body" is based on a phenomenological interpretation about the vision and the eyes. The vision makes the "perception-cum-expression" possible, and then justifies the existence of the film's body in the sense of combining trans-subjective and inter-subjective. I will come back to a detailed elaboration about the concept of the "film's body" in the next subsection.

In the second step, I reflect on the uncompleted genealogy of the embodiment principle that is constituted by Sobchack and Wegenstein's theories. This genealogy illustrates the change in the concept of the body and the development of the embodiment principle. As my analysis shows, both of their theories choose an organ, or a body part, as the starting point of their thinking. For Sobchack, the starting point is the eye and vision, while for Wegenstein, it is skin, the traditional boundary between interior and exterior. In this sense, their theories do shape a track of the changes into the concept of the body, not only in terms of definition, but also in the way one understands the body, the knowledge of the body is produced, as well as the theoretical background they refer to. Based on phenomenology, especially Merleau-Ponty's perception phenomenology, through a close study on the vision, Sobchack reveals the synchronous reflexivity between the action of seeing, watching and the process of perception, interpretation. This reflexivity exists and takes placing on the seeing subject all the time. One of her unique concepts, for instance, "perception-cum-expression", object-subject, seeing and being seen, are much more than pure palindrome, but an insight in light of trans-subjectivity and inter-subjectivity philosophy. Additionally, surrounding the eye and vision, she also develops the significant concept of the "film's body", expanding the body from a physical human body to a more aesthetic-oriented concept. In her research, it is the film, but this principle of reflexivity that she reveals, can be applied to other related research fields, for example, the research on online games. I will come back to it in the next subsection. As for Wegenstein's theory, her point is always concerned with relationship, not only the relationship between the body parts and the body as holism, but also between the body and environments, the interior and exterior, the real and the virtual. Different from Sobchack, Wegenstein puts technology/science and feminist theory in the central place along with phenomenology, intending to break up the traditional holism of the body, and to embrace the concepts like disembodiment, embodiment and mediation. Departing from this perspective, Wegenstein (2006) emphasizes the mediation/mediality of the body, "the body and its parts themselves have adopted the characteristics of a medium, wherein lies the return to a holistic body concept" (p.162). She even claims that "the medium has become the body". Their theories do lead to different dimensions of rethinking about the body, even though they both start from one specific body part and its faculty of sense.

Another intriguing question I notice is related to the issues of the real and the virtual, and the material and immaterial, both of which are core issues of my research. For Wegenstein, these two issues are playing very important roles in her theory background, since she employs digital arts, performance and architecture as research subjects. She raises the idea of "mediation" as a key nature of the body in the contemporary era, to bridge and accommodate these two oppositions, namely that of real/virtual and material/immaterial on the one hand, and to avoid being trapped in any term abuse, misusage, or ambiguity, on the other. Put another way, in order to avoid being labeled with either of the aforementioned positions, she chooses the idea of "mediation" as the answer to bypass or go beyond the debate on the oppositions of the real/virtual and the material/immaterial. As Hansen summarizes, "by welcoming the capacity of the (human) body to disappear, while insisting on the incapacity of (human) embodiment to do likewise, Wegenstein embraces a dimension of contemporary cyber-culture (the virtualization of the body) without taking on its more suspect tenets (radical freedom from constraints of embodiment, possibility for downloading consciousness onto computers, etc.)" (Hansen, 2006b, xi).

Nevertheless, Wengenstein's avoidance causes an inherent paradox which precisely lies in Hansen's summary. Firstly, the mediation nature of the body is problematic, as this concept comes from a disembodiment thinking pattern. Wegenstein chooses her own approach that differs from either Hayles's posthumanism, which discusses about how humans are "seamlessly articulated with" computers, or Hansen's new media philosophy, which looks at how humans "retain a distinct form of embodiment that differs categorically from the materiality of computers", under the condition that these two can be "interactively coupled" (ibid). The concept of embodiment that both Hayles and Hansen raise, aims to "articulate" the heterogeneous aspects, while I doubt if the idea of "mediation" is capable of doing it. Because mediation is more neutral but less intentional, or in other word, is less human. As Wegenstein (2006) writes in conclusion of her book, the medium has become a body, then "is this in fact anymore a body, that is, a human body, that is being released as whole through these body installations? Then answer is no…. how the body of twentieth-century concerns, … has been replaced by issues regarding mediality itself" (p.162). Although what she emphasizes is the most significant change in the body, paradoxically, this emphasis still comes from an inherent disembodiment thinking pattern.

Secondly, related to the first paradox, I would rather replace the word "disappear" by "invisible", indicating that in cyberspace the physical flesh body becomes invisible, but no way disappears or vanishes. Put another way, the capacity of being invisible can be seen as one unique existing form of the body, namely the existing digital form, as I discussed in chapter 2. It does not mean, however, the body disappears. Otherwise, a question is emerging - if the body disappears, how and why could embodiment still exist? Even further, this

claim indeed considers embodiment as a priori, which precisely causes an intrinsic paradox both literal and interpretational – a concept of embodiment works and exists in a disembodiment way. This intrinsic paradox undermines the embodiment principle as well as the idea of mediation she raises. Therefore, I prefer to understand this claim in another way. That is, even if the physical body becomes invisible, embodiment as a principle works at soon as the body is involved in any activities again. In other words, the embodiment principle will not be activated, until the body is involved. Indeed, this understanding comes back to phenomenological intentionality, to which Sobchack's theory is related.

As for Sobchack, at least in her book *The Address of The Eye*, she does not even care about these two issues, namely the issues of material/non-material and real/virtual. Her aim is to challenge the traditional theoretical foundation of cinema studies by finding out how vision reveals the synchronicity and reflexivity that exist in a human "subject-object". To this end, she develops the concept of "film's body" through which the concept of the body expands to nonhuman objects, such as cinema, camera and scenes. For Sobchack, the conflict of the real and the virtual, the material and immaterial, are inherently and seamlessly fused into experience, the experience of "being-in-the-world" in terms of aesthetics. Departing from phenomenology, embodiment is undoubtedly a fundamental principle of her theory which transforms and fuses the subject and object, the actor and object. Her thoughts on cinema, in particular on the eye and vision, carry the genealogy of the embodiment theory to a phenomenological direction, and keep reminding us of it even in the digital information era. In summary, these two different dimensions of embodiment provided by Sobchack and Wegenstein not only suggest that this uncompleted genealogy would be nonlinear, but also show how much potential the body would have.

To reflect on my research on the avatar in light of these two theorists' thoughts, I would like to reiterate the definition of the avatar that I have made in chapter 1. That is to define the avatar as an embodied simulacrum of human life supported by the resultant from the imagination and cybernetic technology, inhabiting an integrated environment where the physical daily life and cyberspace are temporarily and seamlessly fused. Different from body parts and organs from which Sobchack and Wegenstein start their thinking, such as the eye and vision, skin and haptic, the avatar is a simulation of a complete body. The experience of playing online games through an avatar is engaged in the process of self-identification (see chapter 2). Meanwhile, as a simulacrum of a complete body, the avatar *per se* is an assemblage that is realized by configuring the faculty of imagination, human senses, including vision, haptic, etc,. and technology. The emergence of the avatar does add a new segment to that incomplete genealogy of embodiment theory, which, in turn, shows the avatar the potential theoretical sources to adopt from. One of the most

significant ideas that I would like to adopt is Sobchack's theory of "film's body", which I will elaborate on in the next subsection.

3.1.2 Is the Avatar a Body or An Image?

In the last subsection, I looked at Sobchack and Wegenstein's theories, and stressed that their theories have shaped an uncompleted genealogy about how to understand and define the concept of the body from a perspective of embodiment. Their theories provide some significant ideas for my research on the avatar, since the avatar not only has some similarity to both cinema on the screen and digital performance, but also has some overlaps with each of them.

This subsection, inspired by Sobchack's concpets of "film's body" and "film subject", legitimizes the avatar as a "body", rather than as an image on the screen.

Is the avatar an image, or a body? The answer to this question is crucial to my research, as it reveals the perspective I take as well as its potential. By the concept of the "film's body", Sobchack legitimizes the film as a body, not in terms of whether it is material or not, but in terms of its reflexivity, which is used to be understood as a capacity that only human bodies have. Viewing the film as a body does open the door to a new understanding and identifying of nonhuman things as well as of the concept of the body. For Sobchack, the lived body of human beings is not merely the "objective instrument of intentional consciousness", but also the "instrumental subject of intentional consciousness" (1992, p.167). A film, as she writes, "is an act of seeing that makes it self seen, an act of hearing that makes itself heard, an act of physical and reflective movement that makes itself reflexively felt and understood" (p.3-4). This film's body enables the filmmaker's and spectator's perception and expression, but due to the assemblage nature of the film's body and the mode of its embodiment, this body still differs from these two physical bodies. The film's body also can be considered as the film's means of perceptually engaging in expressing a world, not only for the audience and filmmaker but also for the film itself. To sum up, according to Sobchack, this film's body is considered as a direct means of having and expressing a world – given to us as a technologically mediated consciousness of experience, but given to itself, through the praxis of its existentially functional body, as the immediate experience of consciousness (p.168). Simply put, the film's body is simultaneously having sense and making sense. It is not to be understood metaphorically, instead, it is a functioning object-subject. On the basis of Sobchack's unique concept of "perception-cum-expression", the moving image on the screen is legitimized as a "body" rather than an image.

Applying her point of view to my research, the avatar also has a function of "perception-cum-expression", but for the avatar, this function is working as real-time, movement-oriented and synchronized. In this sense, the avatar is more than an image, but another animated "body".

In my view, two premises are necessary for considering an image as a body. The first one, although Sobchack does not point this out clearly, is its autonomy. For the avatar, that is if the player is aware that the avatar is not their own physical body, which has been confirmed by the analysis I have made (see chapter 1). The second premise is, according to Sobchack, its reflexivity through which the film's body is seen and seeing, hearing and heard, having sense and making sense. For the avatar, on the basis of the feedback loop mechanism, synchronicity is one of its most significant characteristics. Not only the avatar is seeing and seen, hearing and heard, but also moving and moved, performing and performed. Not to mention the most remarkable capacity of the avatar, namely the capacity of interacting. It makes that, the avatar is interacting and interacted, and also makes the behavior of interacting a dynamic, a network, a flow, where who is firstly starting this interaction does not matter. Put another way, the avatar's capacity of interacting with others makes trans-subject and inter-subject realized, and also makes the avatar a body.

Linked back to the "film's body", this concept can be understood on two levels. In terms of the way in which the film's body is constituted, this body is configurative, an assemblage of multiple parts, such as separated shots and scenes, discontinuous spaces and times, lenses, cameras, etc. This film's body is configured by but more than the sum of all those parts. "That is, articulated in separated shots and scenes, discontinuous spaces and discontinuous times are synthetically gathered together in a coherence that is the cinematic lived body: the camera its perceptive organ, the projector its expressive organ, the screen its discrete and material centre of meaningful experience" (Sobchack, 2004, p.152). This film's body is untouchable, although, as quoted above, material apparatus are essential to shaping this body, such as camera, screen, and projector. This is a process body, similar to, but still different from the body of the avatar, which is an assemblage of hardware of a computer, including a screen, a CPU, etc., and the necessary software that support the game running. This film's body is heterogeneous, or in other words, it is not necessary to assess if the film's body is material or immaterial. More significantly, combining phenomenology and embodiment perspective justifies something as a body that is not necessarily material or physical, but embodied. This justification also, in turn, supports and foregrounds embodiment, even in the discussion in which technology, especially digital and internet technologies which are usually considered as perfect proof of scientific disembodiment and "alibi" of embodiment, is involved.

To sum up, vision not only generates the dynamics simultaneously within film and audience per se respectively and between them, but also opens the possibility of applying it to broader contexts and other related research fields. Jumping out of the field of cinema studies but still following the phenomenological perspective, vision as a vehicle also offers the possibility of applying the "film's body" theory to game studies, and especially to the concept of the "gaming body".

Moreover, different from Wegenstein's solution to the conflict between embodiment and disembodiment, namely the idea of the mediation/mediality of the body, Sobchack's theory appears simultaneously old-school and advanced. "Old-school" refers to her stronger adherence to phenomenology, in which embodiment and the intersubjective perspective inherently lie; while "advanced" frees her from the trap set by the assessment of binaries, for instance the binary between material/immaterial, and then turns back to the fundamental research inquiry about human life. It echoes my understanding that views the avatar as a simulation of human life. Therefore, I would like to call the moving image of the avatar on the screen a body, specifically, following Sobchack's tradition and the new term coined by Crick, a "gaming body".

3.1.3 From "Film's Body" to "Gaming Body"[①]

In the last subsection, in light of Sobchack's concept of "film's body", I have legitimized viewing the avatar as a body, instead of an image on the screen. I also explained how significant this legitimacy is. It is the foundation of my applying the "film's body" to game studies, coining another specific concept of the "gaming body". This subsection firstly gives a glimpse of the concept of "game body" that Crick coins by transplanting Sobchack's concept of "film's body" to game research, combined with a reflection on the limitations and potential of both Sobchack's concept and Crick's assumption. Then, I will raise a concept of the "gaming body" as the substitute for Crick's "game body".

In his essay, inspired by Sobchack's concept of the "film's body", Crick attempts to coin and develop a specific concept of the "game body" in the field of game studies, by addressing the similarity, in particular the linear perspectives such as first- and third-person perspectives used in both films and videogames. For Crick, the camera bridges Sobchack's "film's body" theory and his own game body assumption. In the case of videogame, however, the central role is not the cinema camera but the software-simulated mobile camera

[①] In this chapter, the concept of "game body" specifically refers to the term that Crick coins in his paper *The Game Body: Towards a Phenomenology of Contemporary Video Gaming*, which is different from the term of "gaming body" that I prefer to utilize.

that "follows (or inhabits) a game character in a virtual world" and serves double duty as the perceptive organ of a "game body" (2010, p.3). In this vein, he considers the avatar as "the exclusive intermediary of another" controlled by the player, and raises a very insightful argument about the "three bodies". "During many third-person-style gaming experiences, the player is effectively in control of three bodies: the avatar's body, his or her own body, and the visual perspective of a "game body" or "game subject" (p.4). According to him, in the course of game playing, the game body and the avatar's body are simultaneously controlled by the player, because "the camera view becomes the avatar's virtual head." Both the player and the avatar see as the game body's eyes see or as the player directs it to see (ibid). Employing almost the same words that Sobchack uses to define her "film's body", Crick defines a "game body" as "a visible object" and a "viewing subject" for the player; an "object-subject" that sees and is seen (p.5). Crick also makes some primary distinction between Sobchack's concept of film's body and his game body. He argues that the major distinction lies in that the player's action is explicit in its motility, while a film's body's motility does not depend on any action on the part of the spectator. It echoes the assumption I have made in chapter 1, that one of the most important distinctions between an avatar and a character in a novel is the capacity of movement, action and consequent interaction and cooperation (see Chapter 1).

Crick's three bodies assumption is very significant and insightful, but I would like to push it further and to refer to the embodiment principle as well. His research focus is still on the camera, or the direction and dimension of the camera, the vision, the function or organ of the body, instead of on a complete body and embodiment. Indeed, the perspective that Crick relies on is one function of the feedback loop mechanism that I have argued in chapter 1(see section 1.1.3). The most important lack of his assumption is that he still sees the body as a separate entity, while the relationship between these three bodies is more like a controller-controlled one, rather than an embodied network.

Different from Crick's understanding that the "game body" is controlled by the player, I would like to name this body "gaming body" which is a process body, similar to the unique concept of "perception-cum-expression" that Sobchack develops. In my view, the gaming body is temporarily generated and shaped in and only in the course of game playing. To be clear, the gaming body is not a tangible or visible body, but a process body. It is embodied in the physical gaming body and cannot be controlled, but must be interacting, guiding, cooperating with the other two bodies (namely the physical body of the player and the avatar body on the screen) in real-time.

To sum up, my understanding of Sobchack's "film's body" is much different from the concept that Crick calls "game body". Firstly, one of the major differences between the avatar and a character in a novel lies in the capacity of acting and moving, which Crick also mentions in his paper. Secondly, due to its

capacity of interacting with other people as a different personality, the avatar is a simulation of a complete body, instead of any body organs or their faculty or function. Put another way, the avatar raises a crucial question, that is to what extent embodiment is possible. This issue will be continued in the next section.

Last but not least, I would like to briefly discuss about the possibility of applying the idea of "the body in-between" to a broader research fields. Following Sobchack's perspective and corresponding to the concept of the "film's body", it is justified to argue that there is also a "viewing body" in terms of audience or the action of watching a film. This viewing body is the vehicle of the process of "perception-cum-expression", and is related to but different from both the physical bodies of audience's and the body of the film which is configured by apparatus and shots, scenes, etc,. This coined "viewing body" is an untouchable and invisible outcome of an embodied behavior. Generally speaking, there is a "doing body" that exists and functions in and only in the course of human actions, such as watching movies, playing games. What makes the avatar so distinctive is that, by far, it is the perfect case that distinguishes these three "bodies" and maps out the relation between them. In this sense, this distinctiveness of the avatar renews our understanding of what the concept of the body means. I will turn to this issue of the "three bodies" in section 2.

3.2 Three Synchronized Bodies:

A Body in Flesh, A Body in Code, and What Else In-Between?

In section 1, I have teased out an partial trajectory of embodiment, to which the avatar, as a simulation of a complete body, adds a new segment. This partial trajectory is constituted by Sobchack's theory starting with eye and vision along with Wegenstein's theory of mediation/mediality of the body in the context of digital arts, performance and architecture. Both of their theories are very inspirational in different dimensions: Wegenstein is more technology-oriented, but is trapped by labels such as materiality/immateriality, real/virtual, although she makes a lot effort to avoid it. On the basis of phenomenology, Sobchack develops her unique concept of the "film's body" by highlighting reflexivity and synchronicity that lie in vision. Departing from her perspective, firstly I have validated the avatar as a body, instead of an image on the screen. Then I analysed the potential and limitations of applying Sobchack's "film's body" to game studies, by referring to the concept of "game body" as well as an assumption of "three bodies" initiated by Crick in his essay.

Accordingly, in this section, I carry on the unfinished discussion and analysis on the theory of "three bodies" whereby taking the perspective of synchronicity

into account. I would like to clarify two points. Firstly, concerning the context for the "three bodies" theory, technology, and especially media synchronicity technology, has already entered the centre of the stage. I would like to claim this again, in the informational circumstances, media synchronicity has become the most powerful force and dynamic to fuse, locate, situate and anchor every section of life. This process is being illustrated vividly in the case of the avatar, by capturing these three bodies that are inhabiting different spaces at the same time, in other words, by synchronizing these three bodies. Secondly, pondering those questions does foreground "time" in central place. Along with the embodiment principle, time as a means situates and locates every single body in the era when spatial-temporal frame has become transformed. Specifically, even though these three bodies inhabit different spaces with different forms, they do share the same timeline, which is called "real-time" in both video games and the basic feedback loop function that I discussed in chapter 1. For the sake of articulation, however, the issue of the new spatial-temporal frame will be elaborated in section 3.

This section deals with two major issues: what these three bodies are, as well as what contribution they make to building an identity. I aim to find out how these three bodies co-exist, as well as to what extent and by what means they can be identified as an entity, namely as an identity. Regarding the issue of subject, what is the relationship between these possible identity or identities and the player's subject, and what is their relation to "I"?

To this end, the first subsection deals with the questions about what these three bodies are, what new changes the "three bodies" theory brings about, and how they co-exist with each other. In my view, these three bodies are: the physical body sitting in front of a computer, the avatar's body on the screen, and the gaming body[①] in-between. Or, from another angle, I distinguish them as: one body in flesh, one digitized body on the screen, and one in-between.

The second subsection deals with a need for a terminological clarification, which is emerging from the big picture constituted by Sobchack's "film's body" theory, Crick's effort of applying it to game studies, and my own understanding about the "three bodies" theory. That is, to what extent I use the term of "the body" in this dissertation. The answer to this question is also related to the way in which the term of the body and embodiment differ from each other and then work together. Connecting to the last section where I have validated the avatar as a body rather than an image on the screen, I define the body, at least my usage of this term, as a physical and mechanical assemblage of life dynamic. Not only does this perspective of viewing the body as dynamic echo my analysis about the Daoist Yin-Yang emblem (see chapter 2.1.3), but it also fits

[①] I would like to use the phrase "gaming body" to indicate the process body that is temporarily emerging from and only emerging during the course of game playing, in order to avoid some unnecessary confusion.

with both the embodiment principle and the synchronicity nature of the new media.

The third subsection looks at the significant consequence caused by the updating of the concept of the body, from the perspective of synchronicity, in order to build a connection to the issue of identity/ identification. The consequence is that the external gaze has become a vision floating within different bodies that are inhabiting different spaces, as well as within the self and the other.

3.2.1 What Are These Three Bodies in Game Playing?

In this subsection, I will deal with the question that the title lists out, looking at the theory of "three bodies" that Crick briefly mentions but not expands on deeply enough in his work. I have validated the avatar as a body, rather than an image on the screen in the last section, highlighting reflexivity as the fundamental capacity of a body. Reflexivity will still act as the key to understand and develop my following discussion about the body.

My reflection on the "three bodies" theory is inspired by Crick's idea, as he raises in his paper: "during many third-person-style gaming experiences, the player is effectively in control of three bodies: the avatar's body, his or her own body, and visual perspective of a "game body" or "game subject"(Crick, 2010, p.4). Although I do not agree with his description that these three bodies are "controlled" by the player, I still would like to adopt his idea of the "three bodies" to discuss the circumstances that the body confronts in the digital gaming context, from a perspective of synchronicity.

I argue that these three bodies which are emerging during the process of online game playing are synchronized, coexisting and cooperating with each other in and only in the course of game playing. Specifically, in MMORPGs (massively multiplayer online role-playing game) playing, synchronicity accommodates not only these three bodies within every single player, but also supports multiple real-time interaction and communication among groups and shapes multiple online networks. Different from Crick's terminology and his research objects, namely video games, I would like to name these three bodies as: the physical body sitting behind computer, the avatar's body on the screen, and the gaming body[①] in-between. Or, from another angle, I distinguish them as: one in flesh, one digitized body on the screen, and one in-between. I would like to pay more attention to the third body, due to its special nature which is based on and

[①] I would like to use the phrase "gaming body" to indicate the process body that is emerging from and only emerging during the course of game playing, in order to avoid some unnecessary confusion.

emerging in the process of, in Sobchack's words, perception-cum-expression, and is the perception-cum-expression per se. The concept of the "gaming body" is the one that I would like to substitute Crick's concept of "game body".

The first body is the physical body which is sitting in front of a computer, playing an online game. There are different criteria to define this body from different perspectives in different contexts. This body, for example, in Sobchack's context, is a cinema-goer; while in online game context, is a player's body. This is a flesh body with all organs and faculties such as eyes and vision, skin and tactile, mind and thinking. In terms of simulation, as I have analysed in chapter 1, this body can be seen as the original of the avatar. This body is living a life, while the avatar is simulating it in cyberspace and starting a new process of identifying itself. There are so many ways to define this body. I choose to focus on how this body functions and cooperates with the other two bodies in the context of online gaming.

The second body is the avatar's body on the computer screen. According to Sobchack's terminology, this second body is one component of the "game's body". Along with hardware, such as computer camera, screen, WIFI devices, keyboard, mouse, and software like game software and certain apps etc., the avatar's body acts as one important part of but not equal to the game's body. I prefer to, therefore, employ the phrase of "the avatar's body" instead of game's body to avoid terminological confusion. This subsection focuses on the avatar's body, while the changes in the concept of the body will be discussed in the following sections.

Nevertheless, one question is emerging from the potential discussion concerning the avatar's body: on the one hand, how is the avatar's body different from the body of a book, namely the bound printed pages, as K. Hayles puts it (1999); on the other hand, how is it different from the 3D digitized body, for example, the corpse of the Visible Human Project (VHP) (Waldby, 2000) Simply put, the question is concerned with clarifying the definition of this digital body by comparing it with two other kinds of bodies: a material but non-human body of a book and a digital but fixed imaged body of the VHP.

The comparison unfolds in two dimensions: the nature of reflexivity and the capacity of moving and interaction (see chapter 1). I have argued that the avatar can be and should be viewed as a body rather than an image on the screen or a product of artistic imagination. The avatar's body is a body that has capacity of reflexivity which sets apart the avatar not only from books but also from the corpse of the VHP.

In her book *How We Became Posthuman*, Hayles uses books as an analogy to human bodies, focusing on the "parallel doubleness" that "the entanglement of signal and materiality in bodies and books confers on them" (1999, p.29). The doubleness, according to her, lies in the dichotomy and entanglement of,

generally speaking, structure and content. In the case of the human body, this doubleness is manifested simultaneously as an expression of genetic information and as a physical structure. Similarly, the literary corpus is at once a physical object and a space of representation, a body and a message (ibid). As she puts it, human bodies and books do share some similarities, such as the entanglement of constant struggle and fight between physical structure and representative signal. In my view, however, this point of view ignores reflexivity as one fundamental nature of the body, instead, turning to the dichotomy between the mind and the body, structure and signal. There is a logical trap lurking in her statement, which is concerned with the comparability between books and humans, namely, to what extent the books and the human are analogue in terms of the body. Hayles stresses that "like the human body, the book is a form of information transmission and storage, and like the human body, the book incorporates its encodings in a durable material substrate" (p. 28). It appears convincing, but the human body is more than a form of information transmission and storage. It is also concerned with "lived experience". Adherent to materiality so much that she reduces both the concept of the body and the existing form of the body to a dichotomy of the mind and the body, and to an assessment of the binary based on the material or non-material distinction. In the meantime, she emphasizes the role of technology in history of both human beings and book printing. For books, according to her, their bodies are produced and encoded by printing technologies which have been updated continuously. Different printing technologies change the patterns and codes of books. The content of a book cannot exist without any representation material, no matter if it is written on parchment with pen or printed on paper with ink, but the form of representation is alterable instead of fixed, thus it can exist as information without material substrate.

As a result, a question emerges from her argument: what is the relationship between information and the body? Is information a body? Significantly, this debate links back to my analysis of the difference between the avatar and the character in a novel. In chapter 1, I emphasized that the avatar is the outcome of combining technology and imagination, and a simulacrum of the human life. Meanwhile, this question is related to the visualized digital anatomical body that Balsamo works on, which, indeed, answers above questions (see chapter 2). That is, due to its reflectivity, information could make a contribution to shaping a new body, such as the avatar's body. Both Balsamo's analysis of the digitized body and Hayles's argument about books map out a background for the further discussion about the avatar's body, and foregrounds reflexivity and the capacity of moving as two fundamental characteristics of a body. The feedback loop and the capacity for action not only distinguish the avatar from the characters in a novel, but also distinguish the human body from books and the visualized digital body that Balsamo raises. The capacity for action is important, as Mark Hansen puts it, "movement always displaces the self, thus preventing it from coinciding with itself" (2006a, p.17). It means that the capacity for moving and acting disturbs the illusion that one is not only immersed into a digital

environment or game playing, but also one identifies oneself to the avatar or the characters.

Speaking of gaming experience, Laurie Taylor, based on her own experience of video game playing, points out that in "most first-person games, the player operates on the game world, but never within, which allows the world to be constructed from an imagined viewpoint." She emphasizes that, during her playing, she is aware that she plays as herself so she never passes "through the medium of screen; acting on the screen rather than within the screen" (Taylor, 2003). On one aspect, her argument reveals the awareness of the player during the course of online game playing. The player is always aware that he/she is not identical to the avatar on the screen, because they inhabit different spaces with different appearances. In this sense, it also opens the door to another important question about who the self is, even in the context of "playing as herself". Or put another way, is this the player's self or a new one generated during playing or an integration of both? On the other aspect, playing "on" the game world instead of "within" it that Taylor stresses, triggers a question I would like to discuss about, that is "what is the relationship between these three bodies". Put these two aspects together and there is an inherent logic through her argument: the separation between the player and the avatar, or in other words, the master-slave relation between them. This logic seems to make sense by arguing that the player is aware that he/she is controlling and different from the avatar. In this way, playing a game is an action with awareness and consciousness, instead of being immersed. Thus, in the context of online game playing, a more complicated question needs to be asked: what if the awareness and immersion are occurring at the same time? My assumption is that the coexistence of awareness and immersion makes the game playing a process combining rejecting and acknowledging being identical with the avatar. This process is precisely one of identification and subjectification. I will come back to discuss the new changes in the concept of the body and the relationship between these three bodies in the condition of media synchronicity in the next subsection.

Connected back to the definition that the avatar is a simulacrum of human life, apparently, for an avatar, it does not matter if the simulacrum looks or works the same as its original, namely the physical player's body, or if the simulated is real or virtual. Since appearance is not the fundamental criterion any more, what the avatar means to a player is not to simulate one's external appearance, but the way people live a life.

To sum up, the second body is the avatar's body which is acting and moving on the screen, according to the player's operation. Reflexivity and the capacity of moving simultaneously justify the avatar as a body rather than an image, as I have argued in the last section, and distinguish it from the other two bodies, namely books and the digitized anatomic body. In particular, the capacity for action, even though the action is from the player's demand, "displays" the self, thus gains autonomy for this body on the screen.

Different from these two former bodies I have analysed above, the third body is a specific one that is temporarily generated from and only from a process of online game playing. I prefer to name it the gaming body instead of following Crick's terminology of the "game body", in order to highlight the fundamental nature of this body: a body existing in and only in a process. For Crick, who initiates this "three bodies" assumption in his essay, this third body is based on and shaped by a "visual perspective", which is a fuse of a computer camera and the player's eyesight. The visual perspective, in my view, confines his theory to vision and camera, but also confines his research objects to video games. His focus and research interest is ont how visual perspective functions in game playing, excluding the concept of the body as well as the real-time communication and networking in games.

Choosing the term of the "gaming body" instead of following Crick's terminology of "game body" is based on my own understanding of this process body, and aims to avoid some unnecessary confusion of term usage. The term of the "game body" is, in some way, mechanically transplanted from Sobchack's argument about the "film's body". The "film's body" stresses the interaction between the cinema goers and cinema *per se*, but does not develop the third in-between body, because she raises the unique concept of "perception-cum-expression".

In my view, it is justified to name the third in-between body as "gaming body" to indicate its unique nature of emerging from and only from the process of game playing, in order to avoid confusing it with the whole set of online games which also can be called as "game's body" in Sobchack's way. By "gaming body", I stress the very unique and specific nature of this body. This is a dynamic body, a process body, in-between the body in flesh and the body in digital.

This gaming body is untouchable, invisible but functional. It is a process body, a temporal body. As a result, for the gaming body, time, specifically real-time, is a fundamental parameter, not only because this body's temporality, but also because the gaming body is generating on the basis of the feedback loop which guarantees the synchronicity between these three bodies and therefore makes sure the game playing is continued (see chapter 1.1.3). The role of real-time, or synchronicity, is indeed implicit in Sobchack's concept of "perception-cum-expression". Put another way, this gaming body is an embodied "perception-cum-expression", illustrating the synchronicity between perception and expression, and thus fusing and integrating them together. In this sense, the gaming body is illustrating what embodiment means and how it works, in the specific condition of media synchronicity.

To summarize, these three bodies are the physical and flesh body sitting in front of a computer, the digitized body "doing" on the screen, and the invisible but functional body generated in the course of game playing. These three

bodies, as I analysed above, are inhabiting different spaces, namely the physical world, cyberspace and the interface between them. The "three bodies" theory not only shows that what enormous possibilities and potentials the parameter of "space" could have, but also suggests that space cannot work as one parameter for situating the body anymore. Put another way, it indicates that the so-called "spatio-temporal" bound is loosening. The co-existence of these three bodies is precisely the result and the way to illustrate media synchronicity. In this sense, synchronicity can be understood as transversal flows and the possibility of developing and enriching the transversal dimension of time, provided by new media technologies.

3.2.2 Synchronizing the Body Concept into An Assemblage

In the last subsection, I elaborated on what the three bodies are and linked them back to some arguments and points I have made in previous chapters, such as the exploration of the simulation/simulacrum nature of the avatar, the feedback loop mechanism and the avatar's capacity of behavior, etc,. Based on the "three bodies" theory, this subsection looks at new changes in the concept of the body, in a synchronicity technical context.

My argument is that, in terms of the way in which the body is constituted, the body has become an assemblage, which is supported by synchronization technology. This is not only an assemblage in regard of the existing forms, namely the three bodies emerging in the course of online game playing, but also of the way in which every single body lives, every organ, body part and its faculty and sense work and co-work. Moreover, in regard of the nature of the body, inspired by the Daoist perspective (see chapter 2.1.3), I argue that the body can be understood as a life dynamic, a physical and mechanical being of life dynamic, beyond the distinction between materiality or immateriality.

I argue that synchronicity plays a significant role in this process without taking away the depth of life and the issues of subject and identity. Instead, it enriches dimensions of time, potential and possibilities. Synchronicity thoroughly blurs and invalidates the distinction between outside and inside, by shifting the assessment criterion to the distinction between time and space. That is to say, the outside and inside are distinguished by the traditional time-space frame within which the space is single while the time is fluid. In the synchronized frame, however, the space becomes multiple, multi-layered and multi-dimensional, but shares the same timeline. As a result, the distinction between the outside and the inside, as well as between the real and virtual, are blurred. The very moment of the integrated world, or in Hansen's words, the mixed reality, is synchronized. Synchronicity changes the traditional way in which

one understands time, and develops and keeps exploring another dimension of time.

I would like to highlight that, the synchronicity frame of time and space is not linear anymore, rather it is a landscape, rhizomatic, and nomadic. It is a section, a slice of life dynamic captured by and presenting the fusion of human being and technology. It is a frame within which we are thinking, watching, acting, experiencing and living in the information era.

To this end, I will firstly explore the updated body concept in digital environment, especially in the context of synchronicity, and then specifically focus on the change in the concept of the gaze, to demonstrate the application and influence of this new perspective.

Synchronicity, as the core of the theory of media synchronicity, for some younger computer scientists such as Alan R. Dennis and Joseph S. Valacich (1999), is a substitute for the traditional theory of media richness. According to them, in terms of computer science, synchronicity "is the extent to which individuals work together on the same activity at the same time; i.e., have a shared focus." Five media capabilities that realize media synchronicity are immediacy of feedback, symbol variety, parallelism, reprocessability and rehearsability (p. 5). In general, the definition above is precisely describing the environment and condition of online game playing where individual players play together in the same game at the same time, having a shared focus and imagination. Among the set of media capabilities for synchronicity that Dennis and Valacich outline, immediacy of feedback is worthy of highlighting, because the feedback loop is one of the core supports of the emergence of online gaming and of the avatar, thoroughly distinguishing the avatar from traditional simulacra (see chapter 1.1.3). This capacity of immediacy feedback, for these computer scientists makes a contribution to build better communication among multiple individuals or even multiple groups, than ever surrounding the core theory of media synchronicity. I would like to highlight that there is one possibility these computer scientists have ignored. It is the possibility of communication within one individual, within one self. This communication is taking place during online game playing, and is precisely illustrated by the "three bodies" theory.

In this vein, I then turn to the issue of the relevance between synchronicity and the body, or in other words, to deal with the question about what change and influence synchronicity technology brings into the concept of the body. I would like to consider these three bodies which co-exist and cooperate with each other during the process of online game playing as an outcome and proof of synchronicity. Dennis and Valacich look at what synchronicity can do with regard to developing and improving communication among multiple individuals, but overlook the communication, interaction and cooperation within a single individual, namely that among the three bodies in the course of

online game playing. Rather, as I stressed before, by synchronizing the physical body and the avatar body which are inhibiting difference space, namely by setting these two bodies in the synchronicity frame, the way in which they communicate *per se* seems ready to come out. This way is called embodiment, and in my research on the avatar, it is the gaming body in-between. Synchronicity technology, thus, does illustrate how the communication and cooperation happen within one player, keeping simultaneously splitting and integrating the body and self.

For example, in MMORPG game playing[①], every time the player clicks the mouse, or makes an action order, such as jumping, running, shooting etc., the avatar is making the exact movement as the player demands. It is very common that the player always unconsciously moves his/her physical body with the movement of their avatars, in order to keep consistent pace with them. In this sense, synchronicity is happening between the player and his avatar through both the gaming software support and the gaming body. Due to the unconscious consistency and synchronicity between the player's physical body and their avatar's on the screen, especially the body memory of driving experience and skills learnt from simulated gaming training, some games, e.g. Simulated Flight, are used by the military in the training of pilots. Additionally, in MMORPGs, synchronicity also happens among a number of individual players, just as Dennis and Valacich define: a number of individual players are playing together on the same activity at the same time; i.e., have a shared focus, such as doing tasks, exploring game instances with a group, etc. This capacity also acts as the foundation of online networking, even online society, and then engages in the issue of identification of individual player in the integrated environments.

Looking closely at the synchronization within one player, significantly, being aware that the avatar is different from the player's physical body is vital (see chapter 2.3.1). Not only does this awareness guarantee and confirm the "abandonment of the dream of total immersion" (Hansen, 2006a, p.8), but also illustrates how this abandonment functions and the consequence of it, that is that the third body, namely the gaming body, is foregrounded. Here I would like to employ both Sobchack's "film's body" and Hansen's concept of the "body-in-code" as a background, to scrutinize the theoretical development of the third body.

According to Sobchack, the film's body is neither the camera nor the lens; neither the projector nor the screen, but is an assemblage of a lot of parts, including separated shots and scenes, discontinuous spaces and times, lenses, cameras, etc. In this sense, Sobchack's film's body can be viewed as an embryo

[①] I use MMORPGs (massively multiplayer online role-playing game) instead of traditional video games as an example to discuss how synchronicity, especially the feedback loop, works in game playing, because MMORPGs not only retain most of video games" characteristics, but also develop a potential for online networking (see chapter 1) and communication, which has become a major source of attraction in gaming.

or a transformation of the perspective that the body has become an assemblage, in terms of how the body is constituted. The concept of the "film's body" embraces the points that what we call a body *per se* is not necessarily being flesh or organism, such as lenses and cameras, it even goes beyond the distinction of material/immaterial, such as cinematic shots and scenes. Sobchack's thoughts pave the road for two potential dimensions: one leads to the perspective that the body has become an assemblage, the other leads to my finding about the relevance between the body and life dynamics. In regard of the first dimension, complementary to the concept of the "film's body", the idea of "perception-cum-expression" depicts the body in-between, namely the gaming body in the condition of online game playing, through which the physical body and the avatar are articulated. The body in-between is still vague in the context of film studies, partially caused by Sobchack's rejective attitude towards digital technologies (1990). That is why she does not view it as a body but a phenomenon during the action of watching a film. This body, however, starts to become clearer in the context of digital and online gaming, generally speaking, in the integrated world supported by synchronicity and information technologies.

It is time to turn to Mark Hansen's theory of the "body-in-code" to explore the development of "the body in-between" in the integrated world, or in Hansen's terms, in the mixed reality environment. In his book *Bodies In Code*, Hansen (2006a) raises the concept of the "body-in-code", by stressing the power of imaging, which has been ignored for a long time. In particular the power of imaging the human body, which is given and developing along with "technics"[①]. This concept, he clarifies, does not mean a purely informational body or a digital disembodiment of the everyday body. Rather it refers to "a body submitted to *and constituted by* an unavoidable and empowering technical deterritorialization – a body whose embodiment is realized, and *can only be realized*, in conjunction with technics". This "body-in-code" is a potential that has been ignored for many centuries until digital and internet technologies came up(p.20). It sounds similar to my argument about the relationship between embodiment and technological disembodiment, that is, embodiment as a principle is recovered, when the disembodiment of technology has reached its limit (see chapter 2). The "body-in-code" suggests that disembodiment, such as technology, and embodiment, such as the flesh body, are originally interdependent and therefore indivisible from each other, but they have been artificially separated. Revealing that the long neglected potential has become a fact now, changes the way in which one understands the body and the self. The power of imaging the body per se causes a tension between the self and the body, by creating and visualizing an "other" to the self. By displaying every layer of the self respectively, technology, especially digital simulating technology, separates, "extracts" and visualizes different layers from the so-

[①] Mark Hansen utilizes the term of "technics" to refer to "a theory of the originary technicity of the human" (2006a, ix).

called “I”. This displaying is similar to, but is less rich than what the three bodies illustrate, due to the lack of the gaming body.

Thus, I would like to introduce the concept of synchronicity into the following discuss about the concept of the body. Not only does synchronicity present bodies in different spaces at the same time, for example, the player and his/her avatar(s), but also technically supports the real-time communication, including online social networking among different individuals and between the player and the avatar. Comparing to the power of imaging, this latter capacity of real-time communication and interaction within the self, just like what a player does during the online gaming, goes further.

On the basis of the previous analysis, I would like to make a conclusion to answer the question indicated in the title of this chapter, that is the changes in the concept of the body caused by the synchronicity technology. I argue that the concept of the body has become an assemblage which is configured by the three bodies inhabiting different spaces, but connected by the embodiment principle. This innovative definition of the body is in potential embraced in Sobchack’s theory on films, unveiled in Hansen’s study on the “body-in-code”, and completely foregrounded and richened in the research on the avatar. This evolution also suggests that the space should be taken into account when the concept of the body is discussed, because the body has been extended to become a cross-space concept in the synchronized environments, whilst space is becoming a variable instead of a constant.

I would like to reiterate that, by introducing synchronicity into the discussion, the body has become an assemblage constituted by the three bodies in the course of the online game playing. Synchronization precisely stresses communication and interaction in real-time, which makes the gaming body surface, whilst synchronicity also leads to a frame within which the relationship between the space and the time has been reset. Since one of the functions of the gaming body aims to guarantee the real-time interaction between the avatar and the player, distinguishing synchronicity from the gaming body is necessary. As analysed in the last section, the gaming body and Sobchack’s concept of “perception-cum-expression” are somehow overlapped. In this sense, the gaming body does share some similarity to synchronicity, at least some similar function. This function of synchronization had been hiding behind the physical body until the other existing form of the body was autonomously visualized and presented by modern digital technologies. Just imagine how readers picture scenes and characters in novels during their reading and interpretation, and how, as Sobchack raises, cinema simultaneously perceives and expresses. A reader’s reading and imagining are happening at the same time in different spaces but in the way of imagination, thus the untouchable and unsayable can only exist in an imaginary. Precisely, the lack of technical support for characters in novels, in turn, stresses technology as a fundamental element for synchronicity, whilst it affirms that the gaming body does share some common characteristics with

synchronicity (see the comparison between the avatar and the character in a novel in chapter 1). It is worth noting that synchronicity not only provokes the emergence of the gaming body, but also raises a need for reconceptualizing the concept of the body. Thus, the next question is: is the gaming body still a body, and, what makes the body a body?

In my view, the gaming body is a body rather than a layer, a facet, or a part of the body.

To demonstrate it, I would like to revisit the issue of the relevance between the body and life dynamic, which is one of the consequences caused by the concept of the "film's body" that I mentioned it earlier in this subsection. The concept of "life dynamic" is inspired by the Daoist Yin-Yang emblem (see chapter 2.1.3). In chapter 2 , I have argued that I understand Yin and Yang as dynamic and energy, which can be applied to the body in the way that traditional Chinese medicine theory does. It is a vitality, a life force and dynamic takes different kinds of existing forms, including physical or flesh, as well as digital or imaginary, just like the gaming body in-between. The similarity of all these bodies in different existing forms lies in that all of them are related to the life energy, the life dynamic, which is the most original vitality of a human body and a human life. Put another way, the life dynamic activates and empowers a being, which is capable of being reflex and acting, with the form as a body. Departing from this perspective, I prefer to call them (including the avatar and the gaming body) a body, to affirm that in the information era, the concept of the body has to be defined by life dynamic.

Therefore, I argue that the body has become an assemblage organized, activated and embodied by life dynamic, as a being of life dynamic that is realized by embodiment and embodied action. Not only does the perspective of life dynamic embrace animals and the ecological environment, but it also blurs even eliminates the distinction between outside and inside, nature and culture, technology and human beings.

In this sense, body is everywhere, and everything is about the body. Embodiment situates, locates and fixes this life dynamic when it starts to be engaged in activities, and hence makes a contribution to shape a subject and an identity, which are precisely the embodied outcome of this dynamic. Consequently, identity and subject, both relative to the body, are foregrounded again to the centre of the stage. The "I" as an identity, a subject, does not have a body, or bodies. Instead, the "I" is the body or bodies, and is built and evolving because of them.

On the basis of the previous definition, which is that the body should be understood as an assemblage organized, activated and embodied by the life dynamic, I would like to stress the importance of embodiment. It is the power that anchors and situates the body. As demonstrated above, in the internet information environments, what we call a body is not necessarily flesh or

physical, but should necessarily be capable of embodiment. I will come back to it in section 3.

Last but not least, I argue that the capacity of synchronization not only changes the way in which one understands the self and the subject, but also fundamentally undermines and rebuilds the frame within which one locate and situate oneself by shifting the relationship between space and time. I would like to clarify the concept of "frame". Different from a constructivist "construct" that somehow reduces fluffy and vivid facts to a claim that starts with "discursive constructed" (Sedgwick& Frank, 1995, p.513), I hereby propose a model for this frame, which I call a multi-dimensional coordinate. It is a coordinate on which one's thinking and understanding of the world relies, but there is no barriers that distinguishes outside from inside, external from internal, other from the self. This frame is not two-dimensional, even not three-dimensional, rather, it is multi-dimensional and space-oriented. Within this frame, even the power of imaging *per se* is synchronized, so is the body. Elaboration of this frame will unfold in the next section.

3.2.3 From the External Gaze to Vision from "Within"

In the previous two subsections, I elaborated on the "three bodies" theory and the changes into the concept of the body brought about by it. I argued that the body has become an assemblage that is organized, activated by life dynamic. The synchronicity perspective triggers and acts as a pivot in this process, unveiling the role of the body in-between, namely the gaming body, by visibly presenting multiple bodies with different existing forms inhabiting different spaces at the same time.

This subsection scrutinizes the concept of the gaze, on the basis of the updated notion of the body, in a synchronicity environment. The gaze is a very important concept to both feminist theory and the issue of identity/identification.

I argue that, from the prism of synchronicity, the external gaze has become a multi-dimensional vision floating within the self. This shift enhances the singularity-oriented and more individual-oriented dimension in the process of identification for an individual player, thus locates and situates the identity and identification in a real-time frame. This assumption does not tend to deny the gaze from outside, rather it stresses that the vision from within is not a potential anymore. The vision from within, mixed with the gaze from outside, is engaged in the identity building and rebuilding. Put another way, in a synchronicity frame, the gaze from outside and the vision within the self are intertwined with

each other at the same time, then break the boundary between outside and inside.

For this purpose, this subsection starts with a brief reflection on the gaze and constructivist theory. In his book *Bodies in Code*, Mark Hansen (2006a) highlights the role of the power of imaging whilst refusing constructivist theory. According to him, by creating and visualizing an "other" to the self, the power of imaging the body per se creates a new tension between the self and the body. Along with the gaze from the external other, there is always the vision within the body, the self and the subject. As Hansen quotes philosopher Michel Piclin, a primordial dimension of the living not only remains inaccessible from an external standpoint but also can only be "felt from within" (p.12). That is why Hansen sees the commitment to externalism as a consequence of Butler's adherence to the Hegelian-Lacanian tradition of self-recognition, which privileges the visual and the objectifying role of the gaze. In this sense, his efforts to develop a theory of embodiment and then adopt the resources of autopoietic theory aim to counter the Lacanian hold on thinking about identity in our world today (p. 255. Note xiv). Revealing the long neglected potential changes the way one understands the body and the self. I'm feeling myself, thinking myself, viewing myself, playing and playing with myself. The gaze has become the embodied vision, because it is not only a gaze from outside, instead, inside and outside are integrated. Neither is it possible nor necessary to distinguish which is outside and which is inside.

Hansen's theory is very inspirational to my research on the avatar, because the avatar is not only an image visualized by the power of imaging, but also a body when it is activated and embodied by life dynamic. The avatar body is capable of interacting with the body existing in other forms, and it is realized and supported by the feedback loop and other synchronicity technologies. The tension between the avatar and the player is more concrete and dynamic than the one between the body and tits image.

The communication and cooperation between the player and the avatar is synchronized and is precisely based on synchronicity technology, which, in the meantime, makes every moment of online gaming a section that is captured from the river of time. The section, usually, is literally a visible picture, for example, constituted, at least, by the player's physical body sitting in front of a computer, the avatar on the screen which is always doing something in the game environment and among a number of other avatars, and the invisible dynamic, namely the gaming body. Put another way, the very moment is somehow like a freeze-frame of a photograph or video that has captured what is happening at that time. This is, however, not normal photography, but an immense multi-dimensional one where one is living. Everyone who is involved in the information era, simultaneously is the observer who is looking at the photograph, perhaps even judging and discussing with other people, and the character that is pictured or judged. In the case of the avatar, on the individual

level, this visualized character, as one member of a tremendous network, is able to gaze back and respond to the gaze from the outside "we", and to indirectly react to "external perturbation" (Hansen, 2006a, p.13). Meanwhile, on the micro level, the observer "we" is also being synchronized and therefore being captured in that picture at the same moment, which turns the observer into one member of the picture, while the gaze from outside into a part of the transversal vision. In this sense, the transversal vision is floating among the observer, the observed and the action of observing.

As a result, the boundary between inside and outside has been blurred, and the gaze, one of the core concepts for shaping hierarchy, dominance, and objectification, has become part of, and interwoven with, the embodied vision which keeps fusing and floating in-between. By the words "fusing and floating in-between", I mean to describe the way and the status in which the transversal vision works in the synchronized environment. That is to say, the transversal vision is simultaneously fusing with the gaze from outside and floating between different bodies which are inhabiting different spaces. The consequence is that the gaze is assimilated in the vision. Then, the question is: what are "we"? and, first of all, what am "I"?

To deal with this question, in the next step, I turn back to my previous analysis on the deconstruction and reconstruction of Lacanian "mirror stage" theory in the synchronicity environment. In chapter 2, following the elaboration on the "epistemological turn" which refers to the shift from materiality/materialism to embodiment, I referred to Lacanian "Mirror Stage" theory to explore the issue of identity/identification in cyberspace. By extending the minimal situation constituted by the mirror and an infant in the "mirror stage" formula to a bigger and technology-oriented context, namely cyberspace and digital environment, I stresses that the issue of identification has become more complicated and multi-layered. On the one hand, even a novice player in a game is definitely not a real infant who knows nothing about the world and the self. On the other hand, the process of identification not only takes place between the avatar and the player, but also between one player's avatar, other players and their avatars. The complexity also lies in the awareness that the avatar and the player are two bodies. The relationship between this awareness and being unconsciously identical with the avatar is similar to the change that the gaze from outside turns to become one part of, and interweaves with, the transversal vision. The distinction between the outside and the inside is blurred, the gaze has become transversal vision.

This argument echoes the point that Hansen makes, when he is reflecting on the question which has been asked frequently: "what makes the passage from one realm to another so seamless, so unnoticeable, so believable?" The answer he gives is "the capacity of our embodied form of life to create reality through motor activity," which makes the real world and the virtual world to be the so-called "mixed reality". What I want to highlight is not his answer, but a

reflection on the reason why this question is asked. The reason, for him, is that perceptual experience does not remain within a single experiential frame anymore. In other words, experience typically does not occur within a single perceptual world as a coupling to a single form of extension or homogeneous outside any longer. Instead, as the experiential correlate of contemporary technics, mixed reality has become the condition for all real experience in the world today. That is "precisely what has changed with mixed reality" (Hansen, 2006a, p.8). Similarly, a transversal vision which is floating within the synchronized moment and among the self and others, and comprises the gaze from outside, has become the condition for, at least, all online communication both between the player and his avatar, and among the avatar , massive multiplayers and their avatars.

It is also worth noting that applying the idea of the Mirror Stage to the avatar reveals an anti-mirror stage tendency (see chapter 2.3.2). That is, on the one hand, concerned with the subject. The premise and aim of the Mirror Stage is to unite and build a concrete subject. For the avatar, however, in accordance with the argument that the body has become an assemblage, the subject is splitting instead of uniting to be an entity. On the other hand, the idea of the anti-mirror stage is also concerned with the awareness that the player knows the avatar with which one is playing is not one's own body, but is related to one's physical body. The awareness precisely entails the very basic type of the vision within the self.

To summarize, the process of identification in the integrated world is a combination of differentiating and assimilating, of refusing and embracing, and thus, a process of imaginary and anti-imaginary, identifying and de-identifying, and then the Mirror Stage and the anti-Mirror Stage. The answer that Hansen gives, as mentioned above, reminds us of fact that the integration of the so-called real world and virtual world has become the inevitable condition for all our experience and action today. I want to add a consequence to his claim, which is that due to the synchronicity technology, different existing forms of the body inhabiting different spaces communicating in real-time are possible and even realized. The adherence to externalism should be given up, since the distinction between external and internal is blurred. The gaze from external has been proved to be one part of the transversal vision and will keep functioning to build an identity. The traditional way in which the gaze shapes the identity on both the individual and the collective level, has been forced to combine with the vision within the self and among different bodies. These bodies are identical to one name, one identity, an "I".

Therefore, I would like to reiterate the argument that I have made in chapter 2, that in the condition of the integrated world, the issue of identity and identification simultaneously becomes more singularity-oriented, which foregrounds "I" in the first place, and more multiplicity-oriented, which refers to the above-mentioned combination of construction and deconstruction of the

Mirror Stage pattern. As a result, the issue of identity, which is highlighted in turn, becomes crucial today more than ever.

3.3 Anticipating the Landscape of Concepts' Images: the Body, Embodiment and Synchronicity

In the last two sections, I elaborated on the potential and changes of the concept of the body. In section 1, I drew a genealogy of the embodiment theory by looking at Sobchack's film theory and Wegenstein's work on digital architecture and art performance. Both of them start their research by scrutinizing the relationship between the faculty of body parts and organs, eye and vision for the former, and skin and tactus for the latter. In my view, Sobchack's theory emphasizes a phenomenological perspective, while Wegenstein (2006) pays more attention to how digital technology influence on the body as well as the embodiment theory, and makes the claim that the medium has become the body. Moreover, inspired by Crick's attempt at applying Sobchack's unique argument about "the film's body" to game studies, and raising an assumption of "three bodies in game playing", I developed my argument about the "three bodies" theory in the context of synchronicity technology and online game playing.

In section 2, looking closely at the updated body concept, I argued that the body has been synchronized into an assemblage activated by life dynamic. First of all, I clarified what the "three bodies" theory about, and defined these three bodies as: the physical body, the digitized body on the screen, and the body in-between, namely the gaming body. Referring to the Daoist theory, I elaborated on the concept of the "life dynamic", which is a vitality, a life force and dynamic taking different kinds of existing forms, including physical or flesh, as well as digital or imaginary. It is accordance with the concept of the "existing form of the body", and then legitimizes the gaming body as a body. Revealing the gaming body is significant both to highlight the role of synchronicity media, which have created and become one part of the integrated world, and to support and then to illustrate the conclusion that the body has been synchronized into an assemblage. On the basis of this, I argued that the gaze becomes a vision floating between and among different bodies, crossing through different territories. Then the crucial question emerges of how one identifies these related three bodies into one identity. It concerns the issue of identity/identification, leading to my argument that in the condition of the integrated world, identification becomes simultaneously more singularity-oriented, and more multiplicity-oriented.

This section, taking one step back, views and thinks through the bigger theoretical frame constituted by the arguments I have made surrounding the issue of the body. Based on the key finding that these three bodies are synchronously existing in different spaces, this section looks at the relationship between the body, synchronicity and the embodiment principle, in the information society we are living in today. In other words, this section aims to map out the theoretical frame that is made up of the concepts of the body, embodiment and synchronicity. Synchronicity technology has decreased the role of space by developing, and expanding a transversal dimension of time, and thus capturing and presenting all actions in different spaces at the same time. It is no accident that synchronicity inherently accommodates the possible relativity of time and space (Mansfield, 1995, p.86). Psychoanalysis theory is not the focus of this dissertation, but it does show rich potential in thinking deeply about space and time on the basis of synchronicity. Related to the epistemological turn that I have argued in chapter 2, I prefer to call this frame a landscape, or a coordinate where these three concepts (the body, embodiment and synchronicity) are acting as key nodes respectively.

I argue that, by illustrating the situation that the body is confronted with in the digital and cyber-oriented era, the "three bodies" theory depicts a multi-dimensional coordinate within which these three bodies are co-existing. Significantly, one end of this multi-dimensional coordinate is situated and grounded by time, pointing towards spacious potential which is implied in the new status and possibility of the body. Thus, this coordinate has replaced the traditional linear pattern.

To this end, my argument will unfold in three steps. The first subsection focuses on the term "within" which I briefly defined in the last section. My assumption is that "within" is not only a concept of space, but also a concept of time. This perspective provides a richer view and prepares for the coordinate-shaped frame, the updated and ever changing landscape.

The second subsection aims to draw a boundary of the possible application field of embodiment and synchronicity, by scrutinizing the conflict caused by dislocating the unsimulated death in simulation games. This exploration of the extreme and forbidden area is necessary in order to avoid any ubiquitous conceptualization.

The third subsection, after the preparation mentioned above, looks at the specific coordinate-shaped frame constituted by the three core concepts: the body, embodiment and synchronicity. Death sits at the (0, 0) origin point marking the end and the forbidden zone of the life dynamic. Except for the position of the origin point *per se*, the coordinate frame holds tremendous future potential. Related to the pattern of "Re⋯ING" that I have elaborated on in chapter 2, I argue that an accumulation of the synchronized sections moment by moment, leads to a renewed dynamic Re⋯ING way to identify ourselves on

the basis of and within the social network in the integrated world. This frame will act as the foundation for my discussion about sex and gender in the next chapter.

3.3.1 Defining "Within"

In the last subsection, after elaborating on the "three bodies" theory, I discussed the significant change of the concepts of the gaze caused by the realized possibility that three bodies are synchronously existing in different spaces. This change is that the gaze from outside has become one part of, and interwoven with, the embodied vision from within that keeps fusing and floating in-between (see chapter 3.2.3). This subsection starts with defining the term "within", so as to contour the landscape constituted by concepts of the body, embodiment and synchronicity.

My argument is that "within" is not only a concept of space distinguishing the outside from the inside, synonymous with insider or inner, but also a concept of time. The latter dimension is precisely what synchronicity works for. Put another way, "within", especially in the condition of the synchronicity environment, frames a structure constituted by, and accommodating both space and time.

To this end, this subsection carries on the argument by answering two related questions. The first question is about "Within What". More specifically, what is the context and territory for the structure of "within"? The second question is about the notion of "within". More specifically, does my emphasis on "within" make any difference in the way one thinks about space and time? If so, what is the difference?

To answer the first question, I would like to come back to my previous analysis on the changes of the concept of the gaze. As I argued in the last subsection, the context for "within" is the specifically synchronized section captured during online interaction and game playing. In the simplest condition constituted by one avatar and one player, this section per se is a combination of multiple spaces, namely at least the three spaces where these three bodies inhabit, and one time point, namely one specific moment during online activities. In more complicated conditions, for example, in a multiple individual game instance in MMORPGs, dozens of players are simultaneously doing the same task and working as a team through real-time communication. Synchronicity works in a more complicated way in which more people are involved and therefore, in addition to the pattern for the simplest condition, a networked and multi-dimensional communication is taking shape and functioning. In the sense of networking, the background of "within" is getting

broader and multi-layered. As Castells raises in his book *The Rise of Network Society*, the new integrated world is becoming a multilayered network society, which also indicates a shift from hierarchy to networks (Castells, 2010; Copier, 2009), or in other words, from hierarchy to a transversal and rhizomatic structure. As a result, the vision, replacing the one- directional gaze, keeps shifting and floating within the space-time section mentioned above, as well as within the communicating network. Consequently, the synchronous section is enriched in this multi-networked circumstance, which deposits and gets integrated into a more multi-layered and multi-dimensional, even scattered, context for the "within", as the playing time accumulates. Therefore, regarding the first question about "Within What", my answer is that it is within a frame, a coordinate through which space and time combine in a specific way, building and continuing to extend a multi- dimensional and networked section. I will come back to the issue of the coordinate in the third subsection.

Based on the analysis on the first question, I turn to the second question: what difference does a perspective of "within" make? As I have discussed in the last section, the perspective of "within" is definitely different from, and even against, the externalist thinking. It is worth noting that this "within" perspective also differs from the point of view that Raynond Ruyer raises, which is "feel from within" (Hansen. 2006a, p.12). "Feel from within" is, on the one hand, based on a radicalized autopoietic theory which refutes the externalist perspective by claiming that a primordial dimension of the living not only remains inaccessible from an external standpoint but also can only be felt from within (ibid). On the other hand, the "feel from within" perspective stresses a position against externalism, by turning back to "within the self", which echoes Ruyer's theory that the body is just one kind of epiphenomenon of subjectivity (p.11). According to him, "feel from within" is precisely within the self, the subject. Connected back to my discussion about the first question, "within" is not only within the body and the self, but also within a slice or a section of space-time and of a network that multiple individual players or users are involved in. "Within", thus, does not mean sticking to one spot, or one site, but to be within a collective, a multi- individual collective, and therefore "within" becomes an inter-subjective concept. Just like a tree with an extensive root system is growing in a woods, an ecological system. Leaves, roots and branches, just like different bodies in different spaces for the player, are doing their own job, cooperating with each other and with other creatures in that ecological system, making a contribution to the growth of the plant.

As Matteo Pasquinelli (2009) points out, in his research on internet activity, and specifically on Google's PageRank Algorithm, the classical perspective of the Foucauldian Panopticon, a dataverillance from above, must be reversed, because Google produces and accumulates value from below. It echoes the point of view made by Castell, that technical revolution changes the society from hierarchy to networks.

In this sense, I would like to emphasize that the term "within" is not an exclusive concept, but refers to a point that is positioned by, and in, an intellectual coordinate, a frame. This point is situated in a specific quadrant, open to endless potentials. Imagine a dot located in one quadrant, which is definitely within the space which is demarcated by coordinate axes, but is not closed or sealed, rather, every quadrant per se is pointing towards open potentials. I will come back to this coordinate in subsection 2 and 3. Departing from this perspective of "within", the avatar is within the section capturing one space-time moment, but this section *per se* is capable of developing wider and wider by getting more and more players involved. So is the transversal vision that I have analysed in the last section. Put another way, the transversal vision is simultaneously within a self and three bodies, and within a network which is capable of getting broader, more complicated and multi-dimensional. During this specific process, identification becomes a dynamic. The avatar, thus, simultaneously as one part of the network and the pivot from which my thinking and the player's gaming start, turns to be a node where the multi-directional vision comes from, goes back, or comes across, in a synchronized section. This situation leads to a bigger difficulty for identification, and in the meantime, to an emphasis on the significance of identity/identification.

Last but not least, the "within" is also a relational concept, because synchronicity is inherently based on relations. Synchronicity works on the condition that there are at least two different matters, which means, in this sense, synchronicity *per se* is a specifically technically supported connection within different objects or matters, such as these three different bodies.

To sum up, I argue that "within" is not an exclusive concept, but a dynamic which is simultaneously within both the coordinate structure constituted by multiple spaces and a moment in time, and multiple relations which are the objects and outcomes of the synchronicity function. The only condition that this space-time section can be realized is the synchronicity technical support. Synchronicity, however, is not limitless. Instead, there are some insulators refusing to be synchronized and, therefore help contour its applied territory. For instance, death. I will discuss the limitation of synchronicity in the next subsection.

3.3.2 As a Limitation: Unsimulated, Unsynchronized and Unexperienced Death

After clarifying the context for, and the innovative perspective of, "within", this subsection explores the limitation of the specific synchronizing moment as well as synchronicity technology. In other words, by discussing "to what extent synchronicity is possibly applied", this subsection looks at the inevitable

limitation and the applicable territory for synchronicity as well as the combination of synchronicity, the body and embodiment. This limitation is determined by the conflict between synchronized experience, for example online gaming, communication and networking experience, and something that defies to be synchronized, for example, death. The limitation is necessary for drawing the outline of the applied territory of synchronicity, and then completing the definition. For this propose, this subsection discusses the limitations of synchronicity, by using "death" as an exception, in order to demarcate the territory that synchronicity can be applied to along with the concept of the body and the embodiment principle.

I argue that, death, as the forbidden area and the border of "within", on the one hand foregrounds the life dynamic that activates and makes one into a body as well as realizes embodiment. On the other hand, death, as the exception of synchronicity, in turn, foregrounds the significant role of time in terms of spatial-temporal structure, by illustrating that the contradiction between the unsimulated death and the simulation of "death" in real-time games, precisely leaves a path for players' self-awareness.

In the first step, I turn back to the previous argument I have made about death in games to build a connection. In chapter 2, inspired by Eva Kingsepp's study on hyperreal, especially the exception of death in games she raises, I explored the distinction between the real and the virtual, and the issue of how to deal with the integrated world, the mixed reality (see Chapter 2.2.1). Utilizing the specific case of death in games as an entry point in her essay, Kingsepp points out the major flaw of Baudrillard's hyperreal theory is the imperfections caused by death in games. I would rather, however, rephrase it as "watching death taking place in games". The position of a watcher, an observer, separates the player from the avatar, reminding the player that he/she is playing a game, instead of being dead. As Kingsepp concludes, "as long as there is a gap where the gamer notices the imperfections in the virtual world in comparison to the real, then Baudrillard's definition of hyperreality does not seem to fit on all levels" (2007, p.373). Thus, one inherent paradox of games, including online games, is caused by the unsimulated death in simulation games. This paradox, however, does not mean to deny that the avatar is a simulacrum of human life, or how powerful the influence brought about by information technology progress could be, but leaves a backdoor from which future reflection could start, as well as a path leading to a new way of thinking about the real/reality. It is about experience, and more specific, embodiment and embodied experience. The emphasis on experience, indeed, suggests that the criterion of the real and non-real does not necessary rely on the material/immaterial axes, but instead leads to the perspective of embodiment.

Taking synchronicity into account, I would like to view death as a limitation and exception for synchronicity, even for technologies in general. From the perspective of synchronicity, players are capable of being aware that they are

playing a game rather than living a life, because death cannot be synchronized either. It turns experiencing death into watching the avatar "dying", which reminds the player that his own physical body is alive at the same time, while another body among these three bodies in the course of gaming is seemingly "dead". For the avatar body, this so-called death only means "game over" and chances to try again. Precisely as the avatar's game over and the player's being alive are taking place at the same time, however, this reveals that what is happening to the avatar is not real death, at least not the death of the physical body in physical world.

Death is the end of life, the end of life dynamic, and then the end of embodiment. When death comes, which means the life dynamic, which activates and embodied in the body assemblage, ceases; the simulation, action, and embodiment cease as well. Death is unexperiencable, however, which confirms that no matter how we understand or define the term of the body, the life dynamic is the essential power that empowers a body.

In the second step, taking death into account, I pay attention to its influence on synchronicity as well as its relation to the body concept. I would like to highlight the concept of "awareness" which has been repeatedly mentioned. This awareness is a recognition of what Hansen calls a "reaction to external perturbation" (2006a, p.13), and the fundamental reason of the so-called "abandonment of the dream of total immersion" (p. 8). In my view, this "abandonment" is not an option at all, but the only choice left, because the unsimulated, unexperiencable, unsynchronized death keeps arousing the player's awareness and thus repeatedly breaks the illusion of total immersion.

It is worth noting that this awareness precisely works on the basis of the synchronicity principle whilst it breaks the synchronicity environment in turn, which highlights the significant role of time in terms of the traditional spatial-temporal structure. As I analysed above, the player's awareness indeed lies in the gap between the game world and the physical world casued by the inherent paradox between the unsimulated, unexperiencable and unsynchronizable death and simulation games. This awareness will not be activated until the so-called immersion, or the integration of the game world and the physical world, occurs. Once the awareness is emerging, it breaks this immersion and integration by forming a gap between these two worlds, while, significantly, synchronicity is still working and repeatedly filling in the gap, even if this awareness is aroused. For instance, during online game playing, the player is aware that he is playing a game instead of living the avatar's life, which does break the illusion of immersion, but does not stop synchronicity.

Synchronicity is not equal to immersion, but a way to illustrate the synchronous interaction within the self in the process of online gaming or other activities. Put another way, synchronicity realizes and foregrounds how the embodiment works and how fundamental the embodiment principle is, by illustrating how

these three bodies co-exist and cooperate with each other. These three bodies form an assemblage which is organized and activated by the life dynamic. Thus, death cannot be synchronized, because death is the end of the life dynamic without which the interaction between these three bodies ceases. What synchronicity aims for is not creating total immersion, but building a bridge connecting different bodies with different existing forms in different spaces, and it does lead to the integration of these two worlds. As a result, the synchronicity technology updates the relationship between space and time, and frames the multi-dimensional coordinate. In this new integrated world, there are multiple dimensions of space, but only one timeline.

To sum up, the unsimulated death in simulating games indicates another perspective to understand its inherent paradox: death, as a limitation for and the last impassable line against synchronicity, confirms that, on the one hand, there is no ubiquitous concept, or a ubiquitous reality that can accommodate all potentials. On the other hand, it also confirms that the physical body cannot be simulated, but the player's feelings when his/her avatar is facing death in games, such as fear, anger, desperation, etc, can be real and authentic. The latter finding stresses that embodiment has its application limit, but it also underpins that the life dynamic precisely is the power that empowers one to be a body, because the end of this life dynamic is death.

Herein, the origin of the coordinate frame, shaped by the synchronicity technology and through which one's understanding of the integrated world is built, namely the (0, 0) point of this unique frame, has been found and settled. That is death.

3.3.3 The Frame Constituted by the Body and Embodiment in the Condition of Synchronicity

In the previous two subsections, I firstly elaborated on the notion and the significance of "within", in order to map the landscape of these core concepts: the body, embodiment and synchronicity. Then I explored the frame, the multi-dimensional coordinate structure, on which our understanding of the integrated world is being built as well as the origin point of it. In my view, "within" is a concept related to both space and time. This combination of space and time offers "within" a context that is constituted by a section capturing one spatial-temporal moment, as well as by a network which is capable of self-expanding. Therefore, this "within" is not an exclusive concept, but an inclusive one which is within a coordinate-like frame with its own origin point and opening to tremendously multi-spatial potential. Based on this argument, I paid attention to the issue of death in games to pin down the origin point, namely the (0, 0)

point of a coordinate. It prepares for contouring the coordinate frame constituted by the three core concepts: the body, embodiment and synchronicity.

Consequently, this subsection aims to answer the vital question emerging from the previous discussions: how can one anchor, and situate the self in this condition? To answer it, I firstly focus on embodiment to explore how far embodiment can go. My argument starts with going over the discussion and the argument I have made on embodiment, as well as a comparison to Grosz's thinking on the relationship between embodiment and disembodiment, in order to tease out the red thread throughout my view on the issue of the body and embodiment.

In her work on architecture and philosophy, Grosz mentions a language "residue" of philosophies of disembodiment to the term "embodiment". She turns to it when she is carrying on an analysis of Allucquere Stone's argument. "The allure of cyberspace is precisely that of transsexualism: the capacity of a supervening subject or mind to choose its body and modes of materiality, claiming experience of multiple subject positions even while appearing to acknowledge the inherent belonging together of any mind in and as a body" (Grosz, 2001, p.83). Grosz questions Stone's theory by asking "if they can transcribe, metamorphose themselves from one corporeal context to another, in what way is a person then embodied" (ibid) ? Subsequently, she adds another question about the term of "embodiment", stating that "the very language of embodiment implies a 'putting into the body': could this be a residual language of philosophies of disembodiment" (p. 84) ?

Herein, Grosz raises two questions related to embodiment: the first is that if the term of embodiment per se is a residue of disembodiment thinking, while the other is whether the embodiment is possible under the condition that a body can be chosen from different contexts in any level. I would like to highlight Grosz's comments, because this implication about who puts something into whom, or in general, who is dominant in a binary opposition, is crucial, in particular for my research on the avatar.

Sobchack also stresses the concept of embodiment. In her book *Carnal Thoughts*, she summarizes that the overarching theme of all essays in that volume is embodiment. According to her, the lived body is, at once, both an objective subject and a subjective object: a sentient, sensual, and sensible ensemble of materialized capacities and agencies that literally and figurally makes sense of, and to, both ourselves and others (Sobchack, 2004, p.2). Adopting her thoughts, I understand the term embodiment as "everything one is involved in is relative to the body" and the process that the thing activated by the life dynamic, rather than a "putting into the body", since the body has become a heterogeneous assemblage including material and nonmaterial beings. In the condition of synchronicity, the process of embodiment is foregrounded and illustrated much clearer. Linking back to the epistemological change

caused by the emergence of cyberspace and the avatar, which I called "Re…ING", it has become unnecessary and impossible to distinguish who puts what into whom. Even the pattern of "Re⋯ING" *per se* is an accumulation of continuous synchronized moments during a period. All the renewing, rethinking, regenerating, and re-assimilating, etc., is occurring all the time at different levels and dimensions, while the body is the site accommodating all these Re…INGs, and is being Re⋯INGed. In this sense, could the body be dominant to all the other things that are being "put into" it? Meanwhile, "putting into the body" implies that there is a One who is doing the putting into. In this vein, could the things that are put into the body, such as reason, order, truth, light and mind, also be submitted to the One?

As to the second question, I would like to refer to Sobchack's concept of the "film's body" which embraces an attitude and a new criterion about how to define a body beyond the traditional material/immaterial judgment, inspiring the three bodies theory. Sobchack, as a phenomenologist, focuses on "representation" rather than performance, stressing flesh and being alert to technological disembodiment. "Unlike cinematic representation, electronic representation by its very structure phenomenologically diffuses the fleshy presence of the human body and the dimensions of that body's material world … the electronic tends to marginalize or trivialize the human body… [it] randomly disperses its being across a network, its kinetic gestures describing and lighting on the surface of the screen rather than inscribing it with bodily dimension" (Sobchack, 2004, p.159-161). That is the root not only of her brilliant work on "perception-cum-expression", but also of the hierarchy she makes between film and digital images, or in general, between traditional arts and digital visualization, between artistic mimic and digital simulation. She develops a "body-subject", but what she focuses on is the nature of fusion, through which the body and subject are fused and integrated into one. What she ignores is the interaction and cooperation between them, and the process of this fusion, interaction and cooperation. This is where I further my thinking, keeping the aesthetic perspective that she maintains, going beyond the material/immaterial criterion to name a body. The concepts of body-subject and "perception-cum-expression" are processes of embodiment in terms of aesthetics. I do not mean to work out what part is the body and what part is the subject. I would rather invalidate this distinction. The capacity of choosing bodies and shifting among different bodies can be possible if the subject and the mind are considered as multi-layered and diamond-like multi-dimensional, maybe even fragmented, rather than an entity. It also can be seen as an extreme example of so-called changes in the model of communication, not only communicating with other people, but also with and within oneself, among different fragments/facets of the self. In this sense, shifting among different bodies, yet still keeping embodied, is possible, and has been realized in a synchronized environment.

Even further, those fragments/facets of the self and the body, especially these three bodies, depict a renewed bigger image and landscape of all kinds of relations with and within the body, which has become a new cartography. In this renewed cartography, embodiment has also become a process. As being simultaneously a consequence and a method, the embodiment principle functions to make sure that these three bodies interact with each other and then co-exist in real time. This, in turn, precisely reveals and illustrates the way in which embodiment works, and replaces the traditional linear and causal pattern with a multi-dimensional coordinate frame.

Connecting the embodiment principle to the role of time as a parameter and an element of the coordinate frame created by the synchronicity technology, I argue that embodiment becomes a temporal concept, fusing a phenomenological intention and the situating function of time together. Embodiment is not something eternal, or as Wegenstein suggests, even though the body has the capacity to disappear, embodiment cannot (see chapter 1.2.3). Instead, embodiment is a temporary process, which is occurring when the intention and time are fused, and within the coordinate frame in the synchronicity environment.

Thus, the discussion of embodiment comes back to the theory of process and "within". I would like to reiterate that the body should be understood as an assemblage which is organized, activated and embodied by the life dynamic, while embodiment is the anchor that situates the body with different existing forms, in the synchronized frame. As I have analysed in section 1, in the information era, what we call a body is not necessarily flesh or physical, but is necessarily reflexive and embodied (see chapter 3.1.2).

The synchronicity technology illustrates how the embodiment principle works clearly and noticeably. As the playing time accumulates, every synchronized life section accumulates accordingly, while the body assemblage simultaneously is the site of all "Re⋯ING"s, and is the "Re⋯ING" per se. Synchronicity does not aim to create a total immersion, but to lead to an integrated world, and then to a renewed dynamic Re⋯ING way. Through the continual "RE…ING", one identifies oneself on the basis of, and "within", the social network which inhabits the integrated world. Departing from this perspective, the traditional categories for identity/identification, especially sex and gender, should be re-scrutinized accordingly. My exploration on these categories will unfold in the next chapter.

Chapter 4

Rethinking Sex and Gender in the Synchronized Environment

4.0 Introduction

In the last chapter, from the unique prism of synchronicity, I explored new changes into the concept of the body triggered by the emergence of the avatar. The most significant change is that, by synchronizing the physical world and cyberspace through the interaction between the player's body and the avatar body, the gaming body, namely the body in-between is emerging. The gaming body is a temporary body, and can be seen as the personification of embodiment. As a result, in the integrated world, due to the existence of three bodies in the course of online game playing, I argued that the body has become an assembly activated and embodied by the life dynamic. Meanwhile, also due to the synchronicity technology, the condition that the body inhabits becomes multi-spaced and multi-dimensional, within which identity of an agent and the process of identification lies and anchors (see Chapter 3).

This chapter explores how the emergence of the avatar changes the concepts of sex and gender, given their close relation to the concept of the body, in digital-oriented synchronized environments. The notion of these two terms, their relationship, and the way in which they work will be taken into account. Before entering the analysis, I would like to make some clarification about terminology as well as outline two points of this chapter. Regarding terminology, there is a long time debate on the use of these two terms: gender or sexual roles. This chapter uses gender rather than sexual roles for three reasons. To begin with, the theory based on the sex and gender dichotomy has developed for several decades and, as one of the pillars of this dichotomy, the use of the term of "gender" is rooted in the debate and theoretical traditions. Hence, by far, gender is inevitable in the discussion about feminist theory. Secondly, since my research on the avatar tries to deconstruct this dichotomy, I have to continue to use these two terms. And last but not least, one important assumption in this chapter is using "gender" simultaneously as a noun and a verb, but the term of "sexual roles" cannot undertake this function. It indicates a transformation of perspective viewing gender as a process of construction not only through social norms and disciplines aiming to construct a generic term, but also through gendered lived body experience at individual level. In other words, gender as a core term of feminist theory, is not only about the generic distinction between femininity and masculinity, but is also concerned with the process of constructing one (it could be plural in cyberspace). gender for individuals. Therefore, this expansion of the meaning of gender empowers the

gender performance of a subject rather than constrains gender within cultural and social norms.

Here I would like to outline two points on which this chapter is built. First point is that these changes will be discussed within the frame that I have explored in chapter 3. Namely, a multi-spaced coordinate frame, on which identity of an agent and the process of identification lies and anchors. The second point lies in the choosability of the avatar's gender in cyberspace. Choosability, in the case of the avatar, refers to the particular characteristic that a player can choose gender(s) for his/her avatars at random and then play (with) those gendered avatars in cyberspace, such as the characters in online games or figures in chatting rooms and forums. To describe this specific phenomenon, I have adopted this neologism for the sake of easing access for the readers. This unique choosability of gender contains and leads to multi-dimensional potentials and possibilities, which precisely are the focus of this chapter.

This chapter is composed of three sections. The first section reviews the contemporary theories and debates on the concepts of sex and gender, their relationship and a reflection on such theories. After reviewing the use of and debates on these two terms, I address the tendency of abuse of the concept of "discourse" and emphasize the materiality of the term "sex". Meanwhile, the issues of epistemology are highlighted, since what hides behind the debates and disagreement are always different perspectives and epistemologies.

The second section looks at feminist phenomenology, in particular Toril Moi, Iris Young and Sonia Kruks, to map out the approach I will be following. Young supports the idea of "the lived body" Moi raises to replace the concept of sex, but does not agree with Moi's suggestion of making a break with gender altogether. In this vein, Young defines "the lived body" as an approach to subjectivity, while gender is located in the domain of social structure. I argue that her attempt of thoroughly isolating gender from subjectivity can be viewed as a reflection or even hypercorrection of Butler's theory of gender performativity. Gender is still a useful concept which is involved with the process of identification and subject establishment, especially when the individual level of identification has been emphasized due to that the body has become an assemblage in the synchronicity environments.

The third section proposes my answers to a series of questions which inevitably emerge when the three bodies theory and the synchronicity perspective are taken into account. How does one deal with the "three bodies" theory and the concepts of sex and gender? Is every body sexed or gendered? What is the new notion and relationship between the concept of sex and gender? To do so, this section starts with a brief review of the role of the body and the "three bodies" theory, and then looks at the embodied nature of the subject as a distinction from the discursive perspective. On the previous basis, I argue that along with the theoretical focus shifting from materiality to embodiment, there is also a

shift on the notion of gender. This shift is from social norms to gendered experience as well as from gender hierarchy and oppression to gender difference. The sex/gender dichotomy is broken and replaced by an embodied relationship between them.

4.1 Reviewing Sex and Gender in Relation to the Body

This section reviews three main views on sex and gender to reveal a theoretical context, followed by a reflection on two neglected premises related to the concept of the body. Insomuch as a debate on the relationship between sex and gender, especially whether or not sex is biological while gender is cultural has been part of feminist scholarship for a long time. It is therefore necessary to refer to the concept of the body as one fundamental term of all those debates and theorization.

The first subsection, accordingly, focuses on the review of three former theories about and debates on the concepts of sex and gender. Namely: Judith Bulter's theory of gender performativity, Christine Delphy's Marxist feminist perspective, and Rosi Braidotti's "sexual fibre". These three views, among other feminist schools, create different comparisons between each other and, together make contributions to enriching feminist theoretical background from different angles. The influence from "linguistic turn" that Butler received makes her theory very much contradictory with not only another theoretical source of hers, namely Delphy's Marxist feminism, but also with Braidotti's New Materialism thoughts. Even for latter two scholars, the generational difference is obvious, which I conclude to as the different focus on the material and the materiality, especially the materiality of the body. By contrasting each other, their thoughts map out a complex and tensioned context embracing potentials for further exploration.

The second subsection turns to a reflection on two neglected issues which are foregrounded by the emergence of the avatar, especially by the updated body concept and synchronicity technology. These two issues are the existing form of the body and the role of the body in its relation to sex and gender. The body as a concept has been elaborated in chapter 3 in the specific condition of information technology and online gaming. Accordingly, in this subsection, I stress its relation to concepts of sex and gender, looking at the dynamics in the relationship between those concepts, and specifically the changes in concepts of sex and gender.

4.1.1 Three Main Views on the Concepts of Sex and Gender

This subsection, as alluded to in the introduction to this section, reviews three main views on the concepts of sex and gender, including Judith Butler's theory, Christine Delphy's Marxist feminist theory and Rosi Braidotti's thoughts about "the sexual fibre". The conflict, contrast and complementing aspects among such theories offer more potential and inspiration for further discussion.

Some feminist theorists, for instance, anthropologist Margaret Mead, the scholar who first used "sex roles" from which gender derives, insist that sex is natural and biological, while gender is constructed by social and cultural discipline. Others, such as Judith Butler who has been influenced by theory of Gayle Rubin and modern linguistic theories, argue that both sex and gender are constructed by social norms and disciplines, as well as discourse. Apparently, there is a consensus among those theorists that gender is socially and culturally constructed, however, a question of whether sex is natural and determined by biological difference remains. This question also raises another issue – what does materiality mean to the concept of sex, and gender?

To respond to this question, in opposition with Butler, other feminist scholars, especially Marxist feminists and materialist feminists, such as Christine Delphy, Rosemary Hennessy, rediscover the approach of materialism but do not totally follow the trace of classical Marxism. This tendency of rethinking of the body as material, partly caused by post-structuralist theory, leads to another focus of these debates, namely feminist epistemology, which is what Irigaray's and Braidotti's work stress. They emphasize the importance of the materiality of the body, and argue that the embodied subject cannot be disengaged from the corporeal body. In my view, they both pay close attention to feminist epistemology, in order to find a new way in which feminist theory can really enter and start the process of self-identification, working through the paradoxes it has met.

To sum up, the above-mentioned scholars different perspective which is guided by the different epistemologies they adopt, however, the divergence among their theories illustrates dynamics within feminist theory *per se* and the potential for the future development. Their works specifically show different attitudes to the issue of materiality. Butler's theories are deeply influenced by modern linguistics, while Braidotti follows and integrates the theory of Iragary and Deleuze, and develops a theory of new materialism. It is worth going deep into the difference between the new materialism held by Braidotti and the Maxist feminism asserted by Delphy who is one of the pioneers of the second wave of feminism. The distinction between them not only contours the divergence, chronological development and transformation in different feminist generations, but also the distinction between academic feminists and

"movement feminists" (Tuin, 2008), or philosophical and sociological approaches.

Judith Butler

Judith Butler, deeply influenced by modern linguistics, objects the point of view that sex is born, while gender is constructed by social and cultural discipline. Instead, she argues that sex is not merely biological figurations, but like gender, the product of discourses. Moreover, by denying and breaking the sex/ gender dichotomy, she argues that the distinction between sex and gender do not exist at all.

Accepting Wittig's lesbian theory, Butler (1988, 1990, 1993, 2004, 2009) develops her own thoughts on sex and gender. According to Wittig, because a woman only exists in the framework of heterosexuality instead of homosexual culture, a lesbian is not a woman, therefore, sex distinction between man and woman is only valid in a particular heterosexual system. Butler argues that "if the immutable character of sex is contested, perhaps this construct called "sex" is as culturally constructed as gender: indeed, perhaps it was always already gender, with the consequence that the distinction between sex and gender turns out to be no distinction at all" (1990, p. 7).

Connecting the issue of sex-gender to the body, Butler stresses that all bodies have been genderalized at the time when they are born, because there does not exist a pre-discursive point for human beings who can escape from the social inscription. In other words, there is no purely natural body preceding the one that is imprinted by culture and social discipline. Furthermore, due to her loyalty to linguistics, Butler insists that body has been named, distinguished, and imprinted by language and discourse, therefore, sex is not merely biological figurations, but the product of discourses, as the same with gender.

To carry out more detailed analysis on Butler's work, I would like to choose her book *Bodies that matter* as a main text, because this book specifically aims at clarifying some misreading and misunderstanding of her theory. In this book, Butler elaborates the frame of her thoughts about the concepts of sex and gender with patience, especially utilizing the concept of sex as a bridge to connect the materiality of the body and the performativity of gender. In other words, this book looks at organizing these three core terms of feminist theory, namely the body, sex and gender, in Butler ́s own way. According to her, sex is not a simple fact or static condition of a body, but rather is what Foucault called a "regulatory ideal", an ideal construct which is forcibly materialized through time. That is, "sex" is a process whereby regulatory norms materialize "sex" and achieve this materialization through a forcible reiteration of those

norms (1993, p.1, 2). Then, she links sex to gender whereby her creative term of performativity is foregrounded, particularly the reiterative nature of performativity.

There are two effects caused by introducing the theory of performativity into discussion about gender, and both of them result in the emergence of the term "matter". On the one hand, departing from the perspective of performativity, Butler rechecks and deconstructs the dichotomy between sex and gender, and further deconstructs the distinction between natural and cultural, since some scholars understand sex as an analog to nature and gender to culture. Butler does her work in a reduction and absurdum way. She claims that gender is neither a cultural construct which is imposed upon the surface of matter understood either as "the body" or its given sex, nor just the social significance that sex assumes within a given culture. Otherwise, sex will be absorbed and replaced by gender, and then sex becomes an empty term, a fantasy, a fiction to which there is no direct access (ibid, p.2, 5). Her argument is logical within her own frame which is built on the universal reason, however, it is worth noting that there is no place for the corporeal body in her frame. By not considering the corporeality of the body, Butler's theory comes across as organization of concepts. Significantly, the "materialization" that she claims in the quotations is precisely not working on material, but rather, works in a similar way that embodiment does. Whereas, embodiment inherently embraces the body and flesh. I will come back to this issue in section 2, where feminist phenomenology will be discussed.

On the other hand, Butler elaborates the term performativity as a process of repetition. "Performativity cannot be understood outside of a process of reiteration, a regularized and constrained repetition of norms. And this repetition is not performed by a subject; this repetition is what enables a subject and constitutes the temporal condition for the subject" (1993, p.95). Thus, in a performative fashion, the regulatory norms of "sex" work to constitute the materiality of bodies and, to materialize the body's sex, to materialize sexual difference in the service of the consolidation of the heterosexual imperative"(p.2). Her theory of performativity seems to echo the famous statement made by Simon de Beauvoir, "one is not born, but, rather, becomes a woman". Different from an existentialist that Beauvoir was, there is no subject presupposed in Butler's theory as I quoted above. That is the reason why she sometimes uses "performativity" rather than "performative" to avoid this presupposition. Butler doubts the necessity that gender is constructed by an "I" or a "we" that stands prior to that construction in any spatial or temporal sense. Instead, the "I" emerges only within and as the matrix of gender relations themselves.

I would like to highlight that even if the "I" can be understood in the sense of identity, this matrix of gender relations is different from the coordinate that I raised in the last chapter. The word "frame" I stress definitely can be replaced

by matrix, but the way within which the "I" emerges and forms is based on lived experience, instead of social norms and rules. The fundamental aspect of identification, in my view, is lived experience. That is why the point of origin, namely the (0, 0) point of the coordinate is death, rather than non-flesh norms. While, for Butler, the frame per se is the foundation and genesis. Here, from the terms "norm" and "reiteration", the brand of Foucault and influence of Derrida are very clear. Furthermore, according to Butler, Sex is both produced and destabilized in the course of reiteration. Under the condition of heterosexual matrix, sex, as one of the norms, working in a performative fashion, makes the body intelligible. Linking it to her rethinking of the relationship between sex and gender, if sex becomes a fantasy without access, how can people deal with the possible consequence that life itself would be unthinkable? Hence, it is necessary to doubt the concept of construction.

Then, what is gender? In her earlier essay, *Performative Acts and Gender Constitution: An Essay in Phenomenology and Feminist Theory*, Butler defines the gender as follows: "Because there is neither an "essence" that gender expresses or externalized nor an objective ideal to which gender aspires; because gender is not a fact, the various acts of gender creates the idea of gender, and without those acts, there would be no gender at all. Gender is, thus, a construction that regularly conceals its genesis"(1988, p.522). In this essay, Butler still wants to examine in which way gender is constructed through specific corporeal acts, and what possibilities exist for the cultural transformation of gender through such acts. Whereas in her latter work of *Bodies that matter*, Butler abandons this task and turns to deal with another question, which is through what regulatory norms sex itself is materialized. In accordance with this change, she suggests to replace the concept "construction" by "matter" (1993, p.9).

This change or replacement of terms triggers two doubts about her theory. These two doubts are seemingly opposite, but share the same, or at least similar, principle in the sense of epistemology. The first doubt is about the notion of "matter". Deconstructing the concept of "construction", and proposing "matter" in its place is seemingly a return to the notion of "matter". For her, however, the notion of matter cannot be understood as a site or surface, but as a process of materialization that stabilizes over time to produce the effect of boundary, fixity, and surface we call matter (1993, p, 9). In this vein, there is only the property and function abstracted from the matter, which are materialization and materiality respectively, instead of the corporeal matter *per se*. Butler understands construction as neither a subject nor its act, but a process of reiteration by which both "subjects" and "acts" come to appear. Constituting subjects or making subjects emerge is one of the functions or products of construction, by producing outside and inside, and then the force of exclusion and abjection. This vein is the same as what happens to the concept of "sex", without considering any relation to flesh and physical body. For Butler, "to be a body is to be exposed to social crafting and form, and that is what makes the

ontology of the body a social ontology" (2009, p.3). Obviously, what she emphasizes here is still the meaning and intelligibility of the body, instead of the body *per se*.

The second doubt is that Butler abandons "construction" and sticks to regulatory norms, rules, or frames through which sex is materialized. However, are they some sort of constructions, perhaps not fixed and closed but a process of constructing? I would like to highlight that this insistence which is inherited from Hegel and Psychoanalysis theory runs through most of Butler's works. When Butler is mourning deaths caused by wars, she emphasizes the frames as the epistemological capacities to apprehend a life, to make a life intelligible, furthermore, to judge which lives are livable and valuable and which lives are not. For her, the "frames" that work to differentiate the lives we can apprehend from those we cannot (or that produce lives across a continuum of life). not only organize visual experience but also generate specific ontologies of the subject (2009, p.3). That is the reason why Mark Hansen (2006a) calls Butler's theory of gender performativity as "the final instance" (p.13) for constructivist, "the constructivist theory least guilty of externalism, with the important point being that it still is externalist" (Note xiv). Butler's (2004) adherence to intelligibility is also why in my view, in her analysis on the case of David Reimer, a transsexual, mourning instead of justice is the only thing that has been done to Reimer.

In the next step, I would like to focus on Butler's analysis on the story of David Reimer, to tease out her Hegel-Psychoanalysis theoretical source as well as to discuss the inherent inconsistency between the "in-between" identity that Butler positions Reimer in and the intelligibility of the frame she adheres to. In her book *Undoing Gender*, Butler (2004) addresses the case of David Reimer, who was a transsexual that killed himself at the age of 39. In order to do justice to David Reimer, Butler tries to find a third way to re-read this transsexual story, that "neither confirms nor denies the theory of social construction, neither affirms nor denies gender essentialism" (p.66-67). As a real and alive outsider, Reimer, through his discourse of self-reporting and self-understanding, speaks his worth, derives his worth, and whereby the things beyond sayable he emerges at and marks the limits of intelligibility and frame, but is still doubtful if he is a subject. Because "he is, even within the syntax which brings about his 'I', still positioned somewhere between the norms and failure. He is still the anonymous. He is, finally, neither one; he is the human in its anonymity, as that which we do not yet know how to name or that which sets a limits on all naming" (Butler, 2009, p.74).

I would like to highlight the inherent inconsistency within Butler's analysis by scrutinizing the frame of justice that she refers to. In my view, this inconsistency is caused by her epistemology which is focused on abstract meaning of intelligibility. It seems to me that, according to Butler's analysis, David Reimer's case is a story of a life in-between-frames, who fails to identify

himself neither as a man nor as a woman, neither confirms to norms nor is a failure. However, according to her epistemology, precisely, it is not an in-between frames case at all, since the conclusion of her re-reading is still negative, a judgment made in a "neither-nor" way. This conclusion is logical and coincident with Butler's thought of frames whereas it also suggests an intrinsic inconsistency between the in-between position of David Reimer and the "neither- nor"-style. First of all, justice is about the verdict or judgment made under the condition of obeying specific frames, laws, or norms. This process of giving verdict determines that justice precisely cannot be done to ones who cannot identify themselves with the laws, rules and norms. In other words, the guilty/not guilty verdict is invalid to judge things or situations out of or beyond the existing frame, which means the in-between case is unintelligible. This serves in no way to position Reimer in a world that is constituted by clear-edged frames, rules and norms. Because for these kinds of frames, there is no room for in-between, instead, there is only room for the valuable or the worthless. That is why Butler uses "neither/nor" to reject identifying Reimer with male or female, but she cannot positively locate him. Even if the title of the chapter about David Reimer's case is "Doing justice to someone", Butler's adherence to frame cannot really do justice to David Reimer and people who do not obey the social norms, because their identity cannot be confirmed by the existing norms and frames, which keeps them unnamed and anonymous.[①]

Therefore, Butler's analysis of David Reimer's case raises a lot of doubts. On may question, is this "neither/nor" conclusion a justice? Can justice be done to people who are unidentifiable to the existing norms and laws? Does this kind of intrinsic inconsistency only happen to David Reimer, or also it happen to women? If women still need to appeal to existing norms and laws that produced the oppressive situation of women, is this the "justice" that feminist scholars and women want? If not, is there any possibility of escaping from or beyond this "neither/nor" style of justice, although it appears to be justice? These series of questions make the issue of epistemology emerge, just like what Butler does in the introduction to her recent book *Frames of War*. For Butler (2009), the frames are politically saturated, aiming to delimit the sphere of appearance itself. Then, she links epistemology to the issue of ontology, hence turning to the question of "what is a life" ? (p.1, 2) Since Butler perceives framing as a functional element, serving for the ontological and sovereign meaning – intelligibility - can people identify themselves beyond male/ female dichotomy? I cannot see the possibility in Butler's theory, although she tries to leave space for the self-improvement of the frames. Consequently, the third way that Butler tries to follow in explaining the predicament that Reimer meets is not a way at tall. As Geertje Mak (2006) points out, even when writing about the body, Butler seems not at all interested in the question of how the heterosexual matrix

[①] In my view, Butler's theory fails to position people who cannot identify themselves with the existing norms and laws. I am also using this kind of yes/no statement here. But her analysis of transsexual case is useful, because there are some similarities between them and people who create avatars whose genders are different from their own. I will come back to it in section 3.

actually reads the body (p. 333). Butler's approach is not about the body, but about discursive subjectivity and frames. Even though she feels sorry for Reimer's life, she cannot find a way for him. Obviously, the inextricable inconsistency within her theory is based on her epistemology, which makes the turning to other epistemology, specifically materialist feminism and the affirmative feminism theory necessary.

Christine Delphy

Criticizing the static vision of women and men, Christine Delphy (1975, 1984, 1993), as a representative materialist feminist, holds a different theory from Butler. Complimented by Simone de Beauvoir as the most exciting feminist theorist in France, Delphy has a big influence on Monique Wittig who deeply influences Judith Butler. After Simone de Beauvoir distinguishes sex and gender, although the binary opposition is still kept in her thought, the term gender develops a new perspective and field for academic research. During the second wave of feminist movement, Gayle Rubin's gender theory emphasizes the role of sexuality and race, or ethnicity, "gender", thus, turns into a complex network of power formations, opposite to the binary model of domination proposed in earlier versions. Rubin's pioneering work marks a significant phrase, and triggers a sociological turn in feminist theoretical development (Braidotti, 1991, p.17). In this context, bringing Delphy's gender theory into this section is, on the one hand because of her atavistic relation to Butler, on the other, because she claims that Feminism is above all a social movement (Delphy, 1984, p.211), which suggests her approach is sociological and is in accordance with this "sociological turn". I would like to introduce Delphy's point of view of sex/gender system firstly, then her materialist approach.

In 1970s Delphy's work focused on women's oppression in the family, and showed an inclination to materialism, in particular to Marxism, which made her case very unique, even in those complex context. She stresses that gender precedes sex, therefore, gender is precisely the most elementary category and the foundation of materialist feminism, and even for all feminist theories. In this vein, she adds a gender perspective based on and focusing on the situation of oppression of women to the term "class", and uses this classical Marxism term to refer to the division between men and women.

In her important essay *Rethinking Sex and Gender*, opposite to mainstream thinking that sex comes first and precedes gender, Delphy (1993) claims that gender precedes sex. The reason why theorists do not question "sex" until the convention of use and discussion on gender has been established is that "sex denotes and connotes something natural", hence "we must first demonstrate that "sex" is applied to divisions and distinctions which are social. Then we

must not only separate the social from the original term, which remains defined by naturalness, but make the social emerge" (p.6). From her materialist approach, she also criticizes the school from Levi-Strauss to Derrida by querying the measurability between different differences. Therefore, according to Delphy, since Derridean fails to distinguish between the differences on which language is based and differences in social structures, the characteristics of cognition, in so far as they can be reduced to the characteristics of language, cannot account for social hierarchy, and cannot account for gender accordingly (ibid, p.4). Delphy's argument that sex denotes and connotes something natural can be seen as a strategy, since the distinction between social and cultural is so enrooted. In order to separate some integrated and twisted elements in one term, in this case, sex, while integrating elements denoting natural and cultural parts, creates another term – gender - to take on one part of the elements is necessary and significant. She also expresses her concern about the risk of refusal of sex roles and the disappearance of gender, if feminists reject the sex/gender hierarchy. For her, the distinction even the dichotomy of sex and gender is necessary and functional, because it makes gender emerge and depart from sex. Delphy acknowledges the corporeal part of sex, due to its relation to the physical body, but, for the same reason, she views gender as the content while sex as the container. Departing from her Marxist approach, the content, namely gender, especially the situation of gender in family relations, is the focus of research, while sex is just a primary tool to divide and distinguish which is social and which is natural. Through her rethinking of the relationship between sex and gender and questioning the priority between sex and gender, Delphy raises a question of "whether gender is independent of sex".

I would like to discuss Delphy's materialist feminism from an epistemological point of view. If Alison Jaggar's argument is true that socialist feminism is unmistakably Marxist, at least insofar as it utilizes the method of historical materialism (Whelehan, 1995, p.45), Delphy is really one member of this feminist group. As Diana Leonard points out, although Delphy consistently argues for a completely autonomous women's movement, her work on the oppression of women is clearly Marxist in origin. Leonard (1984) calls Delphy a social constructionist in line with the brand of radical feminism (p. 9,11).

Delphy adopts materialism and uses it more in a Marxist way rather than in a feminist way, which indicates that the dichotomy of social and natural, sex and gender is still accepted and remains in her work. In her work in 1984 *Close to Home: A Materialist Analysis of Women's Oppression*, the term "materialist feminist" was first used as a refutation of some sociologist feminists, when the reflection on the question that to what extent feminist research can benefit from Marxism in a constructive way was dominant in feminist groups. Because through the feminist movements, Marxist feminists realized that there is a substantial hurdle to their work which lies in the basic tenets of Marxism and feminism: a resistance to patriarchy for feminists versus a resistance to class for Marxists (Whelehan, 1995, p.46). Mark Cousin and other feminists, after their

reflection on the limitation and validity of Marxism, realized that because Marxism is indifferent to sexual difference, there is a incompatibility between Marxism and feminism. In other words, in Marxist theory the issue of sexual oppression is excluded and elided (ibid).

Different from those feminists above, Delphy and her companion Hennsey appeal to a marriage between Marxism and feminism. In the introduction to another book *Materialist Feminism: A Reader in Class, Difference and Women's Lives*, Hennessy and Ingraham explain that they prefer the term "materialist feminism" to "Marxist feminism", in order to emphasize that although Marxism had not adequately addressed women's exploitation and oppression, a historical materialist analysis might be developed that would account for the sexual division of labor and the gendered formation of subjectivities. Additionally, they understand materialist feminism as the conjuncture of several discourses – historical materialism, Marxism and radical feminism, as well as postmodern and psychoanalytic theories of meaning and subjectivities (Hennsey& Ingraham, 1997, p.7).

To defend Marxism, Delphy (1984) refutes that all these critiques and reflections confuse Marxism as a method, with the Marxist analysis of capitalism being one of the possible application of this method (p.158). She considers the term of class and exploitation, still, as the fundamental category not only for Marxism but also for her own materialist feminist thoughts. According to Delphy, on the one hand, the key terms of class and exploitation, which are more general concepts than those used to analyze capitalism, can be used to explain sexual difference. On the other hand, she admits that Marxism "is indifferent to the problem" of sexual division, but she also emphasizes that "in the opposite sense: it takes the sexual division as given, it recognizes it and integrates it: it is based on it" (p.160). Here is a logic contradiction, especially when connecting it back to the argument she makes that those general concepts of class and exploitation can be used to explain women's oppression. If Marxism is based on sexual division, which is a key fundamental for Marxism, how then can those major concepts of class and exploitation explain the women's oppression which is decided more directly by sexual division, not the reverse? In my view, that contradiction is caused by Delphy's externalist position.

It is worth noting Delphy's methodology. She emphasizes the indivisibility between knowledge and social relationships. There is no neutral knowledge, and all knowledge is the product of a historical situation, whether it is acknowledged or not. "Knowledge that seeks to take the oppression of women as its point of departure constitutes an epistemological revolution, not just a new discipline with woman as its object, and /or an ad hoc explanation of a particular oppression. It is an expression of materialism, but also a renewal of it. It applies a materialist point of view to something materialism has ignored, i.e. the oppression of women. It is a new perspective and not a new object" (p.215).

Two dimensions are embraced in this statement. One of them is that her work suggests that the exclusion of sexual oppression in Marxism, as most sociologist feminists attack and argue, is the result of abuse and misuse of these terms, which makes them inadequate for feminist theory. Consequently, what she needs to do is to add the gender dimension to classical Marxism. The other is the connection and divergence to Haraway's thoughts of "situated knowledge". Delphy argues that knowledge is always partial, which is partly in accordance with Haraway's situated knowledge theory. However, Delphy takes the historical method as the only way for research. She sees gender relation or, in her words the oppression of women as a perspective which has been ignored but could be added to Marxism, then what about race, nationality, or other new categories which might emerge in the future? Is it that simple to just add such categories to Marxism, as Delphy does to the term of gender? The answer is definitely negative.

What Delphy does through her rethinking of sex and gender is to distinguish which part of the term of sex is natural and which part is social, following the binary opposition thinking. Hence, in Delphy's thought, there is no space for the body, the corporeal and individual body, and no space for embodiment or embeddedness, even though she calls her theory materialist feminism. For her, like for Marxism, the body is only a tool or vehicle of production. As Michele Barrett, another Marxist feminist against whom Delphy argues, points out in her recent work, that feminism and Marxism are epistemologically poles apart, thus, according to her, she "would like to locate feminism even more firmly within a liberal, humanist tradition" (Whelehan, 1995, p.66).

The "Sexual Fibre"

In the 1980s and afterward, Materialism was still one important theory resource for feminist scholars, even though there is a paradox lying in the process of thinking and discussing about matter. That is, as soon as we think about matter, we make some immaterial things emerge: language, consciousness, subjectivity, agency, mind, soul; in addition to imagination, emotions, values, meaning, etc. This paradox is also the target point against which Delphy and Hennsey criticize. For materialist feminists, with the development of capitalism and globalized economies, found a new trend and opportunity to raise the flag of materialism, especially Marxism, again. They argue that various forms of feminist cultural politics that take their starting point such as gender, race, class, sexuality, or coalitions among them have increasingly displaced a systemic perspective that links the battle against women's oppression to a fight against capitalism (Hennsey &Ingraham, 1997, p.1). Opposite to Delphy and Hennsey's criticism, feminists who hold new materialism comment on cultural turn in the development of feminist theory more positively. For them, while

this turn has encouraged a de facto neglect of more obviously material phenomena and processes, it has also problematized any straightforward overture toward matter or material experience as naively representational or naturalistic. They believe that it is necessary to reopen the issue of matter, to return to the most fundamental questions about the nature of matter and the place of embodied humans within a material world (Coole& Frost, 2010, p.3). Not coincidentally, Rosi Braidotti (2002) considers philosophical materialism as one of the most fruitful aspects of Continental Philosophy, and sees Marxism in companion with Lacanian psychoanalysis as one of the two fundamental intellectual bureaucracies of the last century, also as a vision or perspective from which the embodied feminist subject should disengage. She stresses that materialism should be linked both to embodiment and to sexual difference which is a fundamental concept of feminist subject theory. This theoretical frame calls for the body's striking back.

I would like to highlight the difference between Delphy, or classical Marxist feminists, and Braidotti's thoughts in terms of epistemology, although both of them are entitled with "materialism". Delphy stresses the material from a social-economic aspect, while Braidotti emphasizes materiality in terms of philosophy. It is worth noting that both Delphy and Braidotti stress and criticize the school of thought which sees gender as the content with sex as the container. A question then emerges accordingly: Is gender is independent of sex? (Delphy, 1993; Braidotti, 2002). They, however, give very different answers following different approaches. Following classical Marxism, Delphy traces this question to the discussion on which of these two terms, namely sex and gender, comes first. What she exactly deals with is the question of which concept is natural while which is cultural.

Different from Delphy's approach, Braidotti turns back to the concept of the body and then to "sexual difference". She defines the body as "the complex interplay of highly constructed social and symbolic forces: it is not an essence, let alone a biological substance, but a play of forces, a surface of the intensities, pure simulacra without originals." Braidotti (2002) emphasizes that she takes the concept of the body as referring to the multifunctional and complex structure of subjectivity (p.21). Here, her emphasis on embodiment and enfleshment in terms of epistemology is central to her theory, especially to the new materialism she supports. Departing from this perspective, Braidotti implicitly suggests her disagreement with only the historical dimension held by classical materialist and materialist feminists. As the body becoming a complex and multilayered concept, combining all these insights into one coherent theory of embodiment is beyond the means of historicity.

To emphasize the complexity of the body, Braidotti points out that the body remains a bundle of contradictions, because it is part animal, part machine but the dualistic opposition of the two is inadequate today (ibid). So what is the role of the material and the body; what is the relationship between those key

terms? Braidotti makes a very brilliant and clear genealogy of these terms, which she calls "the sexual fibre" running through the works from Foucault to Irigaray and Deleuze, and it is this fibre which illustrates the emphasis on "the material, sexualized structure of subject". Braidotti makes the following statement:

Sexuality as a social and symbolic, material and semiotic institution is singled out as the primary location of power, in a complex manner which encompasses both macro- and micro-relations. Sexual difference – the sexualized bipolarity, is merely a social implementation of the political economy of sexualized identities, which is another word for power in both its negative or repressive (potestas). and positive or empowering (potentia). meaning. Sex is the social and morphological assignation of identity and suitable form of erotic agency to subjects that are socialized and sexualized in the polarized dualistic model of the special institutions of Masculinity/ Femininity. Gender is a generic term to describe the kind of power-mechanisms involved in this complex interplay of forces (p.33).

I would like to follow the "sexual fibre" that Braidotti raises to explore the relationship between three core terms: the body, sex and gender. As analyzed earlier, Butler too stresses the role of language and discourses in her thoughts of sex and gender, and leaves no room for the body *per se*. For Delphy, her interests focused on the material as means of production from the social-economic aspect, while Braidotti engages with materiality - specifically the materiality of the body through philosophical prism. From her definition of the "sexual fibre", Braidotti emphasizes the primary of sexuality which is directly related to the body, the partial animal and partial machine body. Sexuality, as a "social and symbolic, material and semiotic institution", thus, is inherently embracing both the natural and the cultural dimension. Meanwhile, sexual difference is directly related to identities, while sex is a representation of both sexuality and sexual difference, in other words, the body is in part animal and part machine. Simply put, the "sexual fibre" is defined through a prism of power, abandoning the criterion of natural/cultural in the first place. Her emphasis on the body per se rather than draining away the flesh from sex and gender to remain merely language and discourses, also echoes the issue of two neglected premises that I would like to discuss about in the next part. That is the influence brought about by the body's striking back.

And last but not least, in this vein, a question should be asked: is there any abuse of discourses? Here I would like to turn back to Deleuze's thoughts about concepts. He and Guattari offer explicit accounts of philosophy as the creation of concepts, art as the creation of percepts and affects while science as the creation of functions. He defines philosophy in relation to art and science. Life is opened up to diverse modes of thinking, which are made up by these above-

mentioned three main modes (Colebrook, 2002, p.16). According to Deleuze, philosophy is just one of three main modes of thinking, in particular the very mode constituted by and considered as concepts which are made up of discourses. Even though philosophy can be nourished by the development of itself and other modes, it cannot obliterate or replace the other two modes. In a word, the thinking of philosophy is limited with a specific field to apply to. The "limited" property suggests that one concept can be and only can be used in some particular contexts and domains; otherwise, if it exceeds that extent, the concept is abused. Fundamentally, all the theories are discourses, because they are products of knowledge which is involved and representative of power, according to Foucault's theory. However, if all intellectual products are induced to discourses, everything can be concluded in a same concept. Hence, Delphy's (1993) worry about this tendency of abusing the function of language and the influence of linguistic turn is tenable: "its (Saussurian theory's) validity in its own field of reference – linguistics – should not be taken as a guarantee of its applicability elsewhere." (p.4).

4.1.2 The Corporeal Existing Form of the Body: From "The One" to "One Of"

After reviewing and commenting on three main views on the concepts of sex and gender, the last subsection foregrounded the role of the body as fundamental to these two categories. Different from the intensive scrutiny on the body in chapter 3, this subsection hereby puts forth the concepts of sex and gender in relation to the body to explore their potential.

Following "the sexual fibre" that Braidotti raises, this subsection comes back to the body, and looks at two neglected premises I found out from the review. These two inter-related premises are both concerned with the concept of the body, which are the corporeal way as the only existing form of the body until the emergence of cyberspace and the intrinsically male/female binary thinking in the building of theory. The first premise can be viewed as the potential reason of some discourse-oriented theory, while the latter is inherently related to the male/female dichotomy and hierarchy. I would like to focus on the first premise and what changes have occurred in this part, and leave the issue of intrinsic male/female hierarchy to the next section.

The following argument raises the issue of the existing form of the body first, then pays attention to the change into it by referring to the "three bodies theory" which I have elaborated in chapter 3. I argue that the role of the corporeal existing form of the body shifts from "The only one" to "one of", which triggers a shift from the material/materiality to embodiment in terms of epistemology.

In the first step, I would like to highlight that the above-mentioned theories and debates of sex and gender focus and are based on an assumption which is that the body is existing and only existing as the corporeal in the physical daily world. The reason why this assumption has been taken for granted for a long time is that corporeality was the only way for human beings to exist until the emergence of cybernetic and digital technology. In other words, the corporeal form was the One, the absolute ground of all discussions therefore it was not necessary to discuss this premise per se let alone to change it. Due to this uniqueness, some theories, such as Butler's theory of gender performativity, build their linguistics mansion on the foundation which has been proved to be an assumption.

The Visible Human Project (VHP). which I referred to in chapter 2 (see Chapter 2.1.1), demonstrates the new digital existing form of the body while dispelling the above assumption at the same time. The VHP creates anatomically three-dimensional representations of human body, by taking advantage of super-computers to process rich visual data, then turning flesh to data, and data to flesh. This representation constructed by digital data also can be restacked at will over and over again (Waldby, 2000). The VHP is unique and subversive enough to open the door towards re-defining the body by rethinking the relationship between the flesh and digital. Even though the VHP is still a representation, a transition from an image to a body, the avatar as a simulacrum of human life completes the transformation. By synchronizing multiple spaces, the avatar illustrates how the embodiment principle works and updates the concept of the body by replacing materiality with embodiment. In other words, the embodiment principle justifies the avatar as a body instead of an image on the screen and the digital data as a new existing form of the body. In this vein, inspired by Vivian Sobchack's theory of "film's body" (see Chapter 3), I argued that the body concept has been going beyond the material/nonmaterial assessment. Departing from phenomenological perspective, Sobchack, in her earlier book *The Address of the Eye: A Phenomenology of Film Experience*, defines the film's body as a functioning object-subject. In a later book, *Carnal Thoughts*, Sobchack (2004) goes further and argues that in cinema "the multiplicity and discontinuity of time are synthesized and centered and cohere as the *experience* of a specific lived body". "That is, articulated in separated shots and scenes, discontinuous spaces and discontinuous times are synthetically gathered together in a coherence that is the cinematic lived body: the camera its perceptive organ, the projector its expressive organ, the screen its discrete and material centre of meaningful experience"(p.152). This argument liberates the concept of the body from the physical and flesh existence, expanding the concept of the body into an assembly activated and embodied by a life dynamic. Experience, specifically embodied experience, is foregrounded in her theory. Meanwhile, Sobchack's argument justifies the avatar as a body with life dynamic, instead of an image or a representation.

Along with this renewed notion of the body, I argued that there are three bodies co-existing in the course of online game playing, which are the body sitting behind computer, the avatar body on the screen, and the gaming body in-between. These three bodies are embodied into one subject, one identity, even though each of them exists in different by synchronized spaces, namely the physical space, the cyberspace and the interface between them.

In the second step, I would like to turn back to the issue of existing form of the body. On the basis of evolving from the VHP to the film's body and experience of the lived body, I argue that due to the force and influence of technology, such assumption that the body is existing and only existing as physical and material has been contested and therefore, has become problematic. On the one hand, the emergence of cyberspace and the digital existing form of the body, in turn, reveals and emphasizes that the corporeal form had been the only existing form of the body until then. Due to the unique nature of the physical existing form, namely the physical form being "The One", some theorists ignore the fundamental status of the materiality of the body. It therefore reveals that there is an intrinsic flaw of those discourse-oriented theories as this flaw becomes more and more obvious. On the other hand, under the condition of the integrated world, this assumption is not adequate enough to embrace the digital existing form of the body. One direct and significant consequence is that the corporeal existing form of the body is not "the one" anymore, instead, has become "one of". The three bodies theory that I have elaborated in chapter 3 describes this situation and tries to make sense of it in the light of media synchronicity.

I argue that the shift from "The One" to "one of" triggers a shift from material-focused to embodiment-oriented in terms of knowledge and ontology. As Butler (2009) stresses when she is arguing for the rethinking and reshaping of human lives, "if we are to make broader social and political claims about rights of protection and entitlements to persistence and flourishing, we will first have to be supported by a new bodily ontology" (p.2). In the case of the avatar, building the embodiment ontology is necessary and fundamental. With the emergence of digital existing form of the body, the corporeal form has shifted from "the One" to "one of". The result is that the absolute foundation of all these existing theories and debates becomes one of the possibilities, then the whole structure of these theories, including all the humanities, changes. The validity, autonomy, interaction as well as the relationship between all those existing concepts needs to be rechecked and redefined. Existence of the corporeal body in the physical world is the complex interplay of highly constructed social and symbolic forces, a play of forces (Braidotti, 2002, p.21). For the avatar, the flesh body in real world is an interface of the flesh and symbol, not just a biological substance, or a corporeal flesh inscribed by norms and discipline.

Connecting back to the analysis on Sobchack's theory, the experience of specific lived body she stresses is a perspective that goes beyond the materiality of the body and towards an embodiment orientation. Following this perspective to rethink the theories I analyzed above, it presents a different landscape. Butler's theory of performativity of gender is prominent, but I do not agree with her entirely, especially when I rethink it in the era where the real world and cyberspace are mutual integrated.

My first doubt is if her linguistics basis results in the abuse of language and discourse. For me, her argument is precisely based on an assumption that the body only exists as corporeal, which has become problematic since the emergence of digital form of the body. Only because the materiality constitutes the fundamental, language and discourse have their source. It seems that Butler's theory is the perfect explanation of the virtual body in cyberspace, because the corporeal body is kept out of this virtual world. What remains in cyberspace is a virtual body with human identity and solely gender. However, I would like to highlight the difference between discursive language and programming language or codes, while the latter is the precise basis of the avatar. Hereby, Mark Hansen's concept of "the body in code" vividly describes the situation of the body in digital and internet environments. That is not "a purely informational body or a digital disembodiment of the everyday body", but "a body whose embodiment is realized, and can only be realized, in conjunction with technics"(Hansen, 2006a, p. 20).

As to the concern about the abuse of discourse, Irigaray's insight on the defect of linguistics is significant and inspirational. She points out that the linguistic sciences "have not faced, and at times even refuse to face, the question of the sexuation of discourse. They accept, perforce, that certain items of vocabulary may be added to the established lexicon, that new stylistic figures may potentially become acceptable, but they refuse to consider that syntax and the syntactic-semantic operation might be sexually determined, might not be neuter, universal ,unchanging" (Irigaray,1993, p.124). That is the reason why Butler shows her concern about use of "sexual difference", for it might "unwittingly preserve a binary restriction on gender identity and an implicitly heterosexual framework for the description of gender, gender identity, and sexuality" (Butler, 1988, p.530). The consequence of this rejection of the possibility of things determined by sexuality is reduction of the process of identification and genderalization. Here, I see a discursive or linguistic circulation, so, I cannot help but doubt if it is the same as biological destiny, rooted in nature.

My second doubt is about the role of audiences and others. Butler's theory of performativity of gender sounds very similar to Gadamar's theory of play, which emphasizes that play precedes the players, but Gadamar also stresses the importance and role of the audiences. According to Butler, gender identity is constructed by the repeated discursive performativity of gender, so where are the audiences who are watching, gazing, as the representatives of social norms

and disciplines in daily life? Although she removes the presupposition of a subject from the performativity of gender, then suggests a subject in process, the role and function of audiences are different from a subject. Especially she argues that both sex and gender are cultural construction and normative, so is it possible to call a monologue without any interaction and connection with other people social, cultural or disciplined? Following the path that Irigaray (1993) points out, "searching through what is in them – for what is not there. What allowed them to be, for what is not there. Their conditions of possibility, for what is not there" (p.9,10). Not only do I recover the body from discourse-oriented theories, such as Butler's gender theory, but also I justify the embodiment principle as the red thread that connects "what is in" with "what is not there", namely connecting the corporeal body in physical world with the avatar body in cyberspace through the in-between gaming body.

Moreover, these two premises also can be seen in other way as the two relevant dimensions towards notion of concepts and epistemology respectively. Due to the transformation of the status of the existing form of body from "the One" to "one of", one of the consequences is the interweaving of two poles, corporeality and technology, original and product of simulation. As I argued in chapter 1, in the means of property, the avatar is a simulation of human being's with the intervention of modern communication technology. It means that the corporeal body of human beings determines the product of its simulation, according to the Hegelian dichotomy, which also can trace to Plato and Aristotle. The original is dominant to the copy. On the other hand, corporeal body is always seen as inferior submit to mind and intellect which is represented by technology. As counterevidence, this interweaving of two poles constructing the former dichotomy suggests that we should not disengage from materiality when we are talking about human beings.

As a result, the dichotomy and bond between sex and gender is loosening, instead either of them are more directly related to the body. The body, which is understood as an assembly activated and embodied by life dynamic (see chapter 3)., re-enter the center of the stage, acting as a pivotal linking sex and gender together and existing synchronously.

4.2 Feminist Phenomenology as An Approach

In section 1, I reviewed three scholars" points of view on sex and gender, including Judith Butler's theory of gender performativity, Christine Delphy's Marxism feminism and Rosi Braidotti's "sexual fibre". The comparison between such theories brings one back to the body, specifically the materiality of the body, through which two assumptions which have been taken for granted for long time are revealed and challenged. They are the assumption that the

corporeal existing form of the body was the only form as well as the intrinsic male/female dichotomy and hierarchy. Connecting back to the VHP (visible human project). and Sobchack's latter theory about experience of lived body, I argued that the concept of the body has moved beyond a material/nonmaterial judgment. Meanwhile, I paid close attention to Butler's theory of gender performativity. I argued that her theory is not enough for inquiry in the condition of the integrated world. Additionally, a shift from focusing on materiality of the body to embodiment process is taking place.

This section, accordingly, looks at the feminist phenomenology, which raises the idea of "the lived body experience" as an approach, to carry on my argument about the epistemological shift from materiality-focus to embodiment-orientation. Feminist phenomenology theory, specific Toril Moi, Iris Marion Young and Sonia Kruks's work (Young, 1977,2005; Kruks, 1992; Moi, 2001), will be analyzed first, then the questions she raises "is the lived body experience enough" as well as "is the concept of gender still useful" will be answered from the perspective of synchronicity and the three bodies theory.

This section focuses on the idea of "the lived body experience", which can be viewed as a solution not only to going beyond the binary opposition thinking, but also to fusing the physical daily life and the virtual cyber life. Moreover, as Young (2005) contests Toril Moi's point of view that "the lived body might replace that of gender" (p.16), no matter what answer such scholars offer, the idea of the lived body does have relevance to both gender and the sex/gender dichotomy. That is also why the second intrinsic premise about the intrinsic male/female dichotomy and hierarchy which I raise in the last section is left in this section.

4.2.1 Is "the Lived Body" Enough?

This subsection looks at feminist phenomenology as an approach for my research on the avatar. Viewing phenomenology as an approach is indebted to Young's clarification. Young (2005) stresses that, by offering "a unique approach to theorizing subjectivity" , "one can no longer say that phenomenology is a rigorous method, but more that it is an approach to inquiry", because "we cannot be so innocent as to believe that phenomenology can discover a "pure" embodied experience prior to ideology and science" (p.8). I would like to follow the path she points out to inquire the potential changes into the concepts of sex and gender lying in the case of the avatar.

In the last section, after foregrounding the body to a centre of stage, I referred to Sobchack's (2004) recent work *Carnal Thought* where she explicitly raises the idea of "experience of a specific lived body" (p.152) as the subject of the

cinematic. This approach draws my view to Young's work on feminist phenomenology, which not only offers a reflection and tries to, at least for Toril Moi to whom Young refers a lot, raise a renewed idea that can serve the function feminists have wanted from the sex-gender categorization without bringing its problems; but also tries to avoid to "make sexual difference dimorphous" (Young, 2005, p.16,17). Put another way, feminist phenomenology aims to resolve both questions I am concerned with: the applicable approach for my research on the avatar as well as the intrinsic rooted male/female binary opposition and hierarchy - the second assumption that I mentioned in the last section.

In this vein, I would like to have a close look at her latter essay *Lived Body vs. Gender: Reflection on Social Structure and Subjectivity*, where Young focuses on such two core terms and elaborates her own understanding of feminist phenomenology as an approach. In this essay, through scrutiny of some recent studies on the sex/gender distinction, specifically Toril Moi's calling for the concept of "the lived body" to replace the concept of gender, Young demarcates the different aims of such two terms as well as their respectively applied fields. According to her, "the lived body" is a useful concept to "describe subjects and their experience", while a "reconstituted concept of gender" is also necessary for analyzing those aspects which "concern social structure" more than subjectivity and identity (p.13). The former part of this demarcation echoes an analysis on Merleau-Ponty that she made in her seminal work *Throwing Like a Girl*. That is what "Merleau-Ponty gives to the body, the unifying and synthesizing function which Kant locates in transcendental subjectivity" (Young, 1980, p.147). The latter part can be viewed as a call for reconstructing the concept of gender, however, by separating gender from subjectivity. "A concept of gender is important for theorizing social structures and their implications for the freedom and well being of persons" (2005, p.19).

For Sobchack, her emphasis is on the experience of the specific lived body, while Moi's (2001) focus is on the body through which she attempts to invalidate the concept of sex as well as to make a break with gender altogether. In my view, Sobchack is dedicated to fuse and reunite the separated parts of the body assemblage with experience in an embodied way, while Moi concentrates on creating an omnipotent concept without any flaws but meanwhile with the biggest capacity to accommodate all potential. The idea of "the lived body", for her, is not based on biology therefore escapes from the biological destiny as well as from the distinction between sex and gender, between nature and culture. "It does not refer to an objectivist scientific account that generalizes laws of physiology and function" (Young, 2005, p.17). Young supports Moi, claiming that the idea of "the lived body" does the work the category "gender" has done, but better – allowing description of the habits and interactions of both sexes without necessary reduction to the binary of "masculine" and "feminine", and more – avoiding any connection to the social structure and disciplines (p.18).

I hereby highlight the potential externalist point of view within Moi and Young's thinking. That is a tendency of abstracting the body from flesh and separating the subjectivity from the social structures and disciplines, a tendency of restoring the gendered body to a neutral body which does not neatly correlate with sexual dimorphism or heterosexual norms. This tendency is somehow neutralized in Young's answer to the question she raises, "is the lived body enough?"

Is the concept of gender useless? Young answers these questions by referring to Alexander Wendt's demarcation between two levels of structure, micro and macro levels. Micro structures refer to structural analysis of interaction to which gender is very important, while Young is more concerned with the macro level. Because a person is always positioned within institutional settings, dependent on how other people treat him or her as well as the attitude one takes to himself or herself. This point of view is very close to the perspective of network society that I have argued in chapter 1, however, she reduces the dependency on networking to the multiple positions every individual occupies in this structure. In this vein, she turns to two axes of gender structures: a sexual division of labor and normative heterosexuality, cutting off the connection between gender and subjectivity. She defines the relationship between micro and macro levels as follows: "Macro structures depend on micro-level interactions for their production and reproduction", but "their form and the ways they constrain and enable cannot be reduced to effects of particular interactions" (p.20). Put another way, she saves the concept of gender by offering gender the task of "theorizing structures more than subjects" and then fixing gender in social structures.

I agree with Young that the lived body is a very useful concept as an alternative of sex, which embraces what Young elaborates in her essay as well as the embodiment perspective. I argue, however, that in this idea the issues like sexual difference, are rather implicit instead of being clearly manifested. I agree with Young's definition of the concept of gender as "structured is also lived through individual bodies, always as personal experiential response and not as a set of attributes that individuals have in common" (p.26). However, I disagree with locating and fixing gender out of the process of subjectivity. In my view, Young's argument is ongoing in a way that interweaves feminist phenomenology and externalism. Apparently, there is a contradiction between such two theoretical schools in terms of epistemology. When Young distinguishes the lived body as a theoretical term aiming to describe subjectivity, and gender to social structure, she reconstitutes rather than "dispenses with gender altogether", while at the same time forming an internal/ external dichotomy.

I would like to turn to another scholar Sonia Kruks to find a path for further discussion. Feminist phenomenologists invariably turn back to Simon de Beauvoir and Merleau-Ponty to find theoretical sources (Young, 1977,2005;

Kruks, 1992; Moi, 2001). Sonia Kruks also re-examines Beauvoir's work to "re-construct the subject", in order to pave a way through the confrontation between "Enlightenment or modernity" and "postmodernism". According to Kruks (1992), subjectivity is never "pure" or fully autonomous but inheres in selves that are shaped by cultural discourses and that are always embodied-selves that thus are also gendered (p.91). Put another way, Kruks stresses that selves are always gendered, that gender is deeply involved in the process of Self building in an embodied way. She confirms that "in particular, we need to be able to account for gender as an aspect of subjectivity, but to do so without either essentializing or dehistoricizing it" (ibid).

Connecting to the "three bodies" theory and the enlarged micro-level that I briefly mentioned above, I would like to clarify the phenomenology approach that I will be following. The live body which embraces both the embodiment perspective and the focus on experience, as Moi suggests, goes beyond the biology destiny as well as the distinction between nature and culture, even the deeply rooted male/female binary opposition and hierarchy. It is, however, not enough. Different from Young fixing gender in social structure, I learn from Sobchack who stresses the "experience" of the specific lived body.

I argue that in the case of the avatar, due to the unique choosability of the gender of the avatar, gender as a fundamental element makes a significant contribution to subjectivity through the process of identification. Meanwhile, due to the choosability of gender, the approach for studying the avatar's intrinsic capacity of blurring sexual difference dimorphous appeals in particular to the idea of lived body experience. That is, in terms of an individual player, the avatar's gender is choosable, through which the player is able to experience or experiment both genders as well as making through the multi-gendered context. For the avatar, the micro level of personal interaction has been enlarged to become interweaving with macro level within the synchronized spaces and multiple, complex Self more than ever, both of which influence the process of identification and shaping the subject.

4.2.2 Is the Concept of Gender Still Useful?

In the last subsection, I analyzed different points of view within feminist phenomenology, in particular the way in which concepts of subjectivity, the idea of the lived body and gender are located in this theoretical structure. Young and Moi's suggestion of replacing sex by the idea of "the lived body" underpin the idea of "experience of the specific lived body" that Sobchack raises, while Kruks's argument which confirms gender as an aspect of subjectivity, shape the approach that I am following. My answer to the question that Young raises in her essay "is the lived body enough", therefore, is different

from hers. That is an approach which underlines the experience of the specific lived body.

In this vein, this subsection looks at the consequent question: is the concept of gender still useful? If so, what is the role of gender, in particular, in the synchronized environment where the body has become an assemblage?

I argue that, in synchronizing environment specifically for the case of the avatar, the above-mentioned micro level of structures distinguished by Alexander Wendt, has been significantly enlarged and multi-layered. Connecting to the network society and identity imagination which I have argued in chapter 1, along with the shift from focus on "we" to "me", the micro level per se has become multiple layered and dimensioned. It does make contribution to some ongoing and potential changes in terms of research approach. Two significant changes hereby I would like to highlight are: the shift from materiality to embodiment as well as the tendency of the body becoming the pivot directly related to sex and gender. The latter results in a broken sex/gender dichotomy as well as the intrinsic male/female binary opposition and hierarchy which are based on the sexual difference dimorphous.

To this end, firstly, I would like to highlight two key points which differentiate my understanding of feminist phenomenology approach from Young's, then turn to discussing the role of the concept of gender.

In the last subsection, I clarified that the approach I am following focuses on the experience of the specific lived body without abandoning the concept of gender at all nor excluding it from the discussion of subjectivity, instead the approach embraces gender as a necessary aspect. There are two key points worth noting in this approach: "experience" and "specific". The former emphasizes the shift of theoretical focus from materiality to embodiment, while the latter stresses the necessity of paying attention to the micro level which refers to the structural analysis of interaction, "the patterning of practices and interactive routines, the rules which actors implicitly and explicitly follow and the resources and instruments they mobilize in their interactions" (Young, 2005, p.20). In other words, this approach pays more attention to the micro level, because, for the avatar, especially in a synchronized environment, this micro level has been enlarged to become more and more important.

Regarding the first key point, namely experience, I have argued in chapter 1 that the perspective of embodied experience fuses the separation between the real and the virtual and then integrates the physical world and the digital world into one entity. In this information era, it is difficult and, more important, unnecessary to distinguish which is happening in the real world and which is happening in the virtual world. As Mark Hansen (2006a) argues, technique has always been inherent in our daily life, therefore, all reality is mixed reality (p.6). As a result, he raises his very insightful idea of a "body-in-code", by which he insists that a body's embodiment is realized and can only be realized, in

conjunction with technics (p.20). This statement has moved from a focus on the materiality of the body to on embodiment of the body. Another phenomenologist Vivian Sobchack supports the idea of the experience of the lived body from her expertise on cinema studies. As I have analyzed in chapter 3, Sobchack (1992) raises a concept of "the film's body" which is assembled by some material parts such as camera, screen, as well as some non-material parts such as separated shots and scenes. Viewing the film as a body, not only goes beyond the traditional definition of the body as physical and material, but also implicitly embraces a new notion of the body on which the three bodies theory is built. In her latter book, she explicitly argues that the experience of the specific live body is the subject of the cinematic. Wegenstein (2006), as I have referred to in chapter 3, also argues that the body can be invisible, but the embodiment principle cannot.

Embodiment, as analyzed above, is one significant consequence of the idea of experience of the lived body, however, it is not enough. Because, as Moi and Young elaborate, the idea of the lived body avoids sexual difference dimorphous, at the same time, this avoidance makes the gendered nature of the body implicit and even hidden. In some sense, it is a reverse caused by the pursuit of being neutral or generic. That is why the point of "specific" is needed. "Specific" indicates the attention to every single body whose sexual and gender characteristics are accordingly involved. In this vein, I argue that the concept of gender is still useful and necessary, not only in terms of social structure as Young argues, but also in terms of subjectivity as Kruks insists.

Then, the question is "what is the role of gender" in the condition of the integrated world, the synchronized environment. To answer this question, in the case of the avatar, I would like to look at what is embodied on the screen. In other words, for the avatar, except the animation appearance, what else can be presented on the screen? The answer is gender performance. As I have argued in chapter 1, in cyberspace, experience acts as a walking bridge connecting the so-called real and virtual world, but, at the same time, the flesh body is left in the physical world. Along with the flesh body, the nature of the biological sex of the body is blocked out of cyberspace as well. In cyberspace, in particular for the avatar, the flesh turns into data, the body gestures and actions turn into the ones expressed by images, like an animation, while human faces turn into animatic emoticons which are composed by some kinds of simple lines symbols and different colors. In this sense, the suggestion of replacing sex by the idea of "the lived body" is perfectly suitable for the case of the avatar. The fact that gender is the only property left of a player in cyberspace, however, in turn, undermines Young's suggestion to position gender only in social structure, where it has nothing to do with subjectivity.

As de Beauvoir points out, every human existence is defined by its situation. Gender, therefore, as a useful category, becomes more important in the integrated condition, the digitally synchronized situation. In her seminal essay

Throwing Like A Girl, through her analysis on Erwin Straus's explanation of the way girls throw a ball and of the so-called "feminine attitude", Young concludes the modalities of feminine bodily comportment, motility and spatiality. Those modalities describe the situation that women are living in. Young (1980) defines femininity as "a set of structures and conditions which delimit the typical way of being a woman in a particular society, as well as the typical way in which this situation is lived by the women themselves" (p.140). In my view, those modalities also can be applied to masculinity by replacing the word "women" with "men". In a word, for the avatar body, no matter what biological sex a player is, the performance of gender is becoming a fundamental characteristic. Connecting back to the three bodies theory which I have analyzed in chapter 3, the gender performance takes place not only at the so-called micro level which indicates the interaction within network, but also within the Self, namely within the three bodies frame.

To sum up, as Moi and Young point out, the experience of the specific lived body from the perspective of feminist phenomenology replaces the concept of sex, echoes the definition that I made in chapter 3, that is the body has become an assemblage active and embodied by life dynamic (see chapter 3). Connecting to the updated notion of the body, the concept of sex is inadequate to describe the new situation in the integrated world, because the flesh, as well as biological sex stay in the physical world, while the avatar body takes on gender characteristic. Therefore, I argue that, in cyberspace, due to the lived body experience replacing the concept of sex as well as the choosability of gender in terms of a specific player, the body has become the pivot directly related to experience and gender. It results in the broking of the sex/gender dichotomy as well as the intrinsic male/female binary opposition and hierarchy which are based on the sexual difference dimorphous. It does not mean that there is no difference between the feminine and the masculine, instead, by focusing on experience of a specific lived body, the possibility of performing or even experimenting the gender norms challenges the line between femininity and masculinity. The concept of gender, thus, is still a useful concept, and, through the prism of synchronicity, it becomes more and more multi-layered.

4.3 How Do the New Notions of and Relation Between the Concepts of Sex and Gender Work in Cyberspace?

In the previous section, I scrutinized feminist phenomenology in particular the points of view of Iris Young, Toril Moi and Sonia Kruks, specifically on the way in which they understand and position the concepts of sex, gender and the idea of the lived body. This section explores the new potential of the concept of gender in the integrated world through the prism of synchronicity. The

exploration unfolds in the context in which the concept of gender is put into relation with the "three bodies" theory.

I argue that in cyberspace, the emergence of the avatar empowers the player to choose gender for their avatars. The choosability of gender leads to the multiplicity of gender and then enlarges the individual level through the prism of the "three bodies" theory. At the individual level, one can either simultaneously experience both the feminine and masculine or neither of them.

To this end, the first subsection, by referring to the case of CyFishy who is a resident of Second Life, looks at the choosability and multiplicity of gender in cyberspace, which confirms that gender is not merely a concept for social structure, but also is getting involved in the issue of subjectivity. The second subsection proceeds with the analysis on the specific case to underpin the embodied nature of the subject instead of the discursive one, and highlights there is a theoretical shift from materiality to embodiment and therefore, there is no sex-gender-free subject or identity. On the basis of the exploration, the third subsection directly answers a series of significant questions emerging when the three bodies theory and synchronicity perspective encounter the concepts of sex and gender. "Are these three bodies sexed or gendered" is one of the fundamental questions.

In my view, the avatar body is symbolized sex-labeled and gendered experienced, while the gaming body as a process body is a gender switchover, or an embodied function *per se*. As to the concept of sex, in cyberspace, "the social and morphological assignation of identity" aspect of sex seems to separate from the "erotic agency to subjects" aspect, however, the case of Tinysex does reveal that these two aspects are unseparated, and the concept of sex is self-embodied. The concept of gender is still concerned with the sexual difference between the feminine and masculine, but at the individual level, one can be simultaneously both of them and neither of them. Which, does break the hierarchy between the feminine and masculine. Meanwhile, performing, playing and experimenting gender or genders develops a new approach to the gender issues in which difference, instead of oppression, is emphasized.

4.3.1 Disorientation and Freedom:

the Choosability and Multiplicity of Gender in Cyberspace

This subsection looks at the very unique characteristic of the avatar in online games, which is the choosability and multiplicity of gender. Choosability, hereby, refers to the fact that one player is able to choose their avatar(s)' gender(s) and proceed with a performance or experiment of gender, no matter

whether the online gender is accordance with the player's physically sexual role. Multiplicity of gender refers to the consequence of the choosability of gender in cyberspace in terms of an individual player. Since one player can create and play multiple avatars with different genders in multiple games, for the individual player, the gender experience and performance is multiple and inevitably overlapped.

In this vein, in the case of the avatar, I argue that, at the individual level, as the result of the choosability of gender, the multiplicity of gender experience and performance directly blur the distinction between genders, namely between the feminine and masculine. It does not mean that there is no distinction between two genders, rather it does support my previous argument in chapter 2 which is individual identity/identification has been shifted from a collective-oriented to an individual one. Significantly, the choosability of gender also suggests a subject who is making the choice, but, as I will analyze in subsection 2, this subject is not built by discursive repetition, but by the embodied experience.

In her groundbreaking work *Life on the Screen*, Sherry Turkle (1997) vividly records her own experience and feelings when she first creates an avatar and then logs into an online game. As a newcomer, she forgets to choose a gender for her avatar, then she is asked by another player if she is really an "it". She feels, as she writes down, "an unpleasant sense of disorientation which immediately gives way to an unfamiliar sense of freedom" (p.210). "Disorientation" and "freedom" should be highlighted here, because, on the one hand, these two words describe the embodied feelings and experience of an alive female body when a free choice of gender is on her hands. On the other hand, both of them lead to a rethinking of identity. Disorientation suggests the confusion and blankness of identity, the situation that a gender identity we are used to and even have never thought of as lost or deprived from us is gone. Freedom suggests an open door to more possibilities as well as the affirmative attitude towards these ongoing possibilities. Turkle also mentions the unique experience of performance through an avatar whose gender is optional. She argues that "by enabling people to experience what it "feels" like to be the opposite gender or to have no gender at all, the practice encourages reflection on the way ideas about gender shape our expectations" (p.213). For everyone who tries gender-bending, thus, there is the chance to discover that for both of sexes, gender is constructed (p.223).

In my view, the vague feeling represented by "disorientation" and "freedom" is the origin and potential source of sequent changes, especially changes to the concept of gender. What this gender-identity-vacuum experience brings about is more than realizing that gender is constructed. It brings about the reflection on how new experience influences and re-constructs gender for both sexes.

I would like to borrow an example from Boellstorff's (2011) work to illustrate what new possibilities brought about by "disorientation" and "freedom" can be.

In his essay, Boellstorff refers two stories chronicled by the Second Life journalist Wagner James Au. The story I am interested in is about a male resident at Second Life named CyFishy Traveler who creates a female avatar named "Beginning Thursday", whom CyFishy starts dating with after a romantic break up in the physical world. CyFishy explains that dating Beginning has "become[s] a means to explore how to give myself the kind of love I was constantly seeking from outside of myself." It turns out, however, the player behind CyFishy is not a man but another woman who shifts "genders as an experiment" to discover the joys of having a hot guy to stare at any time she wants to (p.507). Boellstorff describes this story as "a plural personhood experienced through simultaneous multiple virtual embodiment," but not an "out-of-body experience". This story suggests that "in virtual worlds, the body becomes a multiplicity, a supernumerary site of subject-formation, a zone of possibility that lies across a distinct gap from the actual-world embodiment" (p.508).

What I would like to highlight in this story is the multi-layered gendered experience and performance on the basis of the choosability of gender. After feeling disoriented and freedom, exploring the very extreme of gender norms is the next step. In CyFishy's story, there are three characters involved: the anonymous player, the male avatar CyFishy, and the female avatar Beginning. Considering that these three characters share the same identity which is anonymous in this case, this story can be viewed as an extreme case. The romantic interaction is taking place simultaneously between three characters with two sexes and genders, namely two women and one man, as well as within a Self. For this player, gender relation becomes multi-layered, including the relationship between the physical player and the male avatar CyFishy and the female avatar Beginning respectively, as well as the one between these two avatars. There are double performances and experiments at both the player-avatar level and the avatar-avatar level, let alone gender switchover from women to men as well as from loving someone to being loved. This story illustrates how gender becomes multi-layered even for a specific lived body. For this specific player, gender is choosable, therefore, she can be both feminine-gendered and masculine-gendered at the same time. Inevitably, the hierarchy between male and female is broken, because in this story, what the player aims for is experience and emotional self-consoling. Both the male and the female avatar are a means for the player to explore some new experience, and what is behind her exploration and experience is her own subject. For the player, gender does play an elementary role for the process of identification. Her story, however, also shows that, even in an extreme case like this, there is still an existing distinction between men and women, namely, the sexual difference is still existing and valid.

4.3.2 Is the Subject Embodied or Discursive?

In the previous subsection, I stressed the choosability of gender in cyberspace by referring to a story of one female player who creates one male avatar and one female avatar at Second Self, who end up dating each other. I argued that the choosability of gender leads to the multiplicity of gender at an individual level, which echoes to the enlargement of the micro level as well as the shift from a collective-perspective to an individual one in terms of identification.

This subsection proceeds with the issues evoked by that above story, especially the issue of the embodied nature of the subject and self. To this end, I would like to unfold my following argument in two steps. First of all, I look at the embodied nature of imagination and experience of gender switchover and the way in which they two intertwine with each other in that story. This first step is paving the road for bridging experience and gender by means of embodiment, both of which are demarcated and positioned in different domains by Moi and Young. Secondly, I focus on three points of view of scholars, Butler, Young and Braidotti, to underpin the embodied nature of the subject as well as gender experience.

The first step is to come back to the story alluded to in the last subsection and look at the relationship between gender imagination and experience which is triggered and then realized by the choosability of gender in cyberspace. I would like to stress that, in the CyFishy's story, imagination is playing a very important role which is intertwining with experience. As the story shows, both CyFishy (the male avatar) and Beginning (the female avatar) are created by the same player who simultaneously imagines the way in which she would like to be loved and experiences how she feels when she is treated that way. Exploring further, what does her gender imagination come from? It comes from her previous experience about the opposite gender and the way she gets along with both genders as well as her own thinking about what being a woman means to her, etc. In a word, the player's gender imagination, in this light, comes from her previous gender experience and intertwines with it. That can be viewed as a cyber-version of Sobchack's unique finding of "perception-cum-expression", but hereby the description should be "imagination-cum-experience" which is realized and concretized vividly by means of the interaction between the player and her two avatars.

Moreover, experience as the approach upheld by feminist phenomenologists emphasizes the embodied nature of it, while imagination, especially the gender imagination is also embodied. As Abram (1997) points out, imagination is not a separate mental faculty (as we so often assume) but is rather the way the senses themselves have of throwing themselves beyond what is immediately given, in order to make tentative contact with the other sides of things that we do not sense directly, with the hidden or invisible aspects of the sensible. And yet such

sensory anticipations and projections are not arbitrary; they regularly respond to suggestions offered by the sensible itself" (p.58). Hereby, he links imagination to sensory and, I would like to add, the link to experience.

To underpin the above connection between imagination and experience, I would like to turn back to my previous argument about the embodied nature of imagination. As I have argued in chapter 1, the combination of the imagination and technology acts as one fundamental difference which differentiates the avatar from other simulacra. In chapter 2, I referred to Chiara Bottici's (2011) essay where she discusses the relationship between "imagining" and identification. After locating the theory of imagination as a subject-oriented approach while imaginary as a context-oriented one, Bottici borrows the concept "imaginal" from Henri Corbin as the solution to the so-called impasse between them. She would like to use imaginal to "go beyond the current impasse of the opposition between theories of imagination as an individual faculty" to "produce images", and "theories of the imaginary as social context" to structure "politics". "Imaginal" is defined as the quality of a product that stands in between the two" (p.63). I argued that due to her consciously avoiding "the traps of a philosophy of the subject", she somehow falls into a problematic non-metaphysics and ignores the individual as a body. The individual body as an agent is precisely the one that embraces both the subject and the social network aspect together. In my view, therefore, embodiment principle does turn the impasse Bottici raises to a problem about how to deal with different dimensions and the results of human imagining. Meanwhile, above argument upholds that imagination per se is embodied.

The second step aims to confirm the embodied nature, instead of the discursive nature of the subject, in order to contour my research approach through the analysis on the case of CyFishy. CyFishy's story can be viewed as an experiment of gender performance and gender switchover. Her story not only reveals that gender is constructed therefore the normative notion of gender is changeable, but also gets involved in the establishment of the subject. As Boellstorff (2011) argues, "regardless of the form an avatar takes, a fundamental way in which it constitutes a kind of embodiment is as an anchor for subjectivity" (p.507). This argument stresses that subjectivity is embodied, which undermines Butler's theory of discursive gender performativity, but underpins the focus of Braidotti's feminist theory of sexual difference, that is on "the embodied nature of the subject" (Braidotti, 1993). Whether the subject is embodied or discursive is the basic difference between Butler and Braidotti, while in my view, the shift from material-orientation to embodiment does support the latter.

I would like to highlight the quotation of the player where she calls her story an "experiment" and gender as a "means" to explore how to give herself the love she is seeking from outside of herself. Apparently, she knows what she is doing and what she wants to get from doing that, at the same time, she is experiencing

all of it. Hereby I see a female subject who is bodily rooted, rejecting the traditional vision of the knowing subject as universal, neutral, and consequently gender-free" (Braidotti, 1993, p.6,7). Braidotti argues that feminist theory expresses women's structural need to posit themselves as female subjects – not as disembodied entities, but rather as corporeal and consequently sexed beings. The first and foremost locations in reality is one's own embodiment. "Rethinking the body as our primary situation is the starting point for the epistemological side of the "politics of location," which aims at grounding the discourse produced by female feminists"(ibid). Braidotti hereby stresses the situation of the subject, rejecting a purely neutral one, and therefore, is different from the idea upheld by feminist phenomenologists.

As analyzed in section 2, Moi and Young propose the idea of "the lived body" to replace the concept of sex, and position "the lived body" as an approach for subjectivity, while gender for social structure. This point of view aims to reflect and finitely refute Butler's theory of gender performativity and her queer theory, by emphasizing the embodied experience and excluding gender from the issue of subject and subjectivity. Put another way, Moi and Young are trying to rebuild the connection between the embodiment experience, the body and subjectivity, and to stress the embodied nature instead of the discursive nature of the subject. They do so in three steps: detaching the sex and gender dichotomy, replacing biological sex with the idea of "the lived body" and then fixing the concept of gender outside of subject and subjectivity. However, the price of this theoretical building invalidates the sexed nature of the body as well as the subject, by arguing that the lived body can be either male or female, which directly makes the sexed aspect implicit and the subject sex-free. In this vein, Braidotti's feminist philosophy can be viewed as a partial refute to the idea of "the live body" by rejecting a gender-free subject.

To sum up, a further analysis on the story of gender performance underpins the embodiment principle when the issue of gender is discussed in cyberspace. By the choosability of gender, I do not mean that there is no oppression based on gender. What I emphasize is the potential of breaking the hierarchy between the feminine and masculine triggered by the possibility of experiencing the opposite gender.

As the analysis shows, the choosability of gender not only leads to gender multiplicity at the individual level, but also confirms that gender is not merely a concept for social structure which has been located outside of subjectivity. Rather, gender, the concept of gender is getting involved in the issue of the subject. This new use of the concept of gender echoes Braidotti's feminist philosophy, which is devoted to developing an embodied and non-gender-free subject while rejecting both the discursive subject theory and the feminist phenomenology which stresses the idea of the lived body but isolates subjectivity to be a sex-gender-free concept.

I do want to highlight that, indeed, choosability of gender also makes the issue of gender more fundamental and offers more dimensions of gender to study. As the above analysis suggests, gender performance and experiment in cyberspace stresses the aspect of the sexual difference by the means of embodied imagination and experience. It, in turn, undermines the hierarchy between male and female, between the feminine and masculine.

4.3.3 Three Synchronized Bodies vs. Sex and Gender

In the previous subsections, I explored the choosability of gender in cyberspace by referring to the story of CyFishy, and then confirmed that the concept of gender is not merely working as an approach for social structure, instead, is involved in the issue of subject/subjectivity. The connection between gender and subject brings out the embodiment perspective. The body, even in my research on the avatar in cyberspace, must be taken into account. On the other hand, the choosability of gender implies a subject with the embodied nature.

Accordingly, after exploring and confirming the approach I follow, this subsection looks at the very significant questions of: how does one deal with the “three bodies” theory and the concept of gender? Do they confront each other? What does gender mean to these three bodies in different spaces? Are they still gendered or not? What about sex?

I argue that, along with the theoretical focus shifting from materiality to embodiment, there is also a shift in the notion of gender from social norms to gender experience as well as from gender hierarchy to gender difference.

4.3.3.1 The Striking Back of the Body and the “Three Bodies” Theory

To deal with this crucial question, I would like to proceed with the choosability of gender in order to highlight that when one chooses a gender in cyberspace, gender becomes a verb. I argue that, along with the theoretical focus shifting from materiality to embodiment, there is also a shift on the notion of gender from social norms to gender experience. The case of CyFishy illustrates how gender becomes a means of experience from social norms.

In this vein, I would like to reiterate the explanation that I made at the beginning of this chapter, which is, I tend to use the word “gender” simultaneously as a noun and verb. Expanding the meaning of the concept of

"gender" empowers the gender performance of a subject, and makes it a process of becoming. I intend to emphasize two points here: (1) to be gendered is a dynamic process more than a verb, and (2) the player, as a subject, is capable of choosing and proceeding this process. It foregrounds the embodiment perspective, which is different from Butler's theory of performativity, although I borrow the term of performance from her and use it as a key term to analyze the process of genderization. My focus, however, is on the experience of gender performance and experiment. Along with the idea of experience of "the specific live body", the concept of gender gets involved in the issue of the subject through individual interactions to enlarge the micro level. I do not mean that repetitive performativity of gender builds the subject, instead, I insist on the highlight of experience where my research on gender is inclined to the way one experiences gender, and how one's experience about either one or both genders develops the other focus on the gender issue: the non-hierarchical sexual difference.

I borrow the phrase "strike back" from Braidotti (2002) where she uses it to describe the phenomena representing the paradoxes of political sensibilities at the end of millennium in Europe under the condition of technological flourish (p.16). Here I employ it to describe one of the consequences of the emergence of the avatar, namely a fusion of embodiment and disembodiment. Braidotti highlights the bodily materiality, and views the redefinition of the body as "a clear move away from the psychoanalytic idea of the body as a map of semiotic inscriptions and culturally enforced codes." The body, according to her, is a "transformer and a relay point for the flow of energies: a surface of intensities" (p.21). The word "surface" shares a similarity with "interface" which is used by Balsamo when she is analyzing the Visible Human Project (VHP). Balsamo argues that the body "may disappear representationally in virtual worlds", but "it does not disappear materially in the interface with the VR (Virtual Reality) apparatus or, for that matter in the phenomenological frame of the user" (Balsamo, 1996, p.126). Apparently, on account of the body, from "surface" to "interface", there is a shift from materiality to embodiment.

In chapter 3, on the basis of Sobchack's ideas of "the film's body" and "perception-sum-expression" as well as Crick's attempt of applying her perspective to game studies, I developed the "three bodies" theory along with the synchronicity principle in the integrated world. The three bodies are the physical body behind computer, the avatar body on the screen, and the gaming body in-between. Put another way, they are the body in flesh, in digital and the process body. What is new in this "three bodies" theory lies in two points. The first point is that the "three bodies" theory updates the notion of the body as an assemblage activated by the life dynamic, and then bestows on the avatar a body instead of an image. It is inspired by Sobchack's idea of "the film's body" which renews the concept of the body to an assemblage of material parts such as screen, camera, and non-material parts such as specific shots, scenes, etc. Furthermore, the concept of the body goes beyond the criterion of materiality,

and moves towards the embodiment orientation. The second point benefits from her "perception-cum-expression" idea which offers a reflexive perspective that leads to the crucial core term of this dissertation: synchronicity. Synchronicity, which is borrowed from computer science, is utilized simultaneously as a thinking perspective and an information technique, inherently embracing multiple spaces that share the same timeline. In the case of the avatar, these three bodies in different spaces are synchronized into one identity, namely the specific player. Every time when one enters one's online circle, a section and slice of life dynamic is captured by and presents the fusion of human being and technology. Synchronicity creates a frame within which people are thinking, watching, acting, experiencing and living. In other words, due to synchronicity technology, these three bodies are synchronized or vice versa the body is distributed in different spaces. Then, a question comes up: individually, is each of the three bodies gendered or sexed?

4.3.3.2 Redefining the Concept of Sex

The player's physical body is definitely sexed and gendered, but the avatar body and gaming body need to be discussed. I will start with the concept of sex. I have analyzed above that the unique and significant change to the body in cyberspace, is that the corporeal property of the body is suspended and blocked out of this digital world. The theoretical shift from materiality to embodiment is accordance with the fact that some material properties, such as the biological part of sex, are also blocked. What is left in cyberspace is the social coded part of sex.

It does not mean, however, that sex in cyberspace is a pure social code, but rather stresses the concept of sex becoming multi-layered. Separating the biological part from the social code part and then interacting between them confirms that the concept of sex is neither a pure biological term nor a social code one, but a combination of them.

Following the new materialist perspective, I argue that not only the body but also sex and gender turn to self-embodied concepts, which makes each of those concepts integrated by immanently multiple levels or components. For the concept of the body, there are three component bodies which are immanent in the one. By means of interaction of these three bodies, the multi-layered body concept underpins the shift from materiality perspective to embodiment perspective in terms of epistemology. In this vein, I understand the concept of sex as embodied as well which refers to "the social and morphological assignation of identity and suitable form of erotic agency to subjects" (Braidotti, 2002, p.33), fused with embodied memory, imagination and desire of sexuality and erotism.

Looking at the avatar's body, I do not say it is "sex-free", but rather "sex-symbolized". For the avatar, sex is symbolized as the choice of the avatar's appearance and profile, making it just a symbolic label of the avatar. The distance between the body and sex is getting further and more indirect, while the link between them is twisted and symbolized. It is not as linear anymore, but is more uncertain than what this link between the body and sex appears in the real world.

Tinysex is a good example to analyze the embodied nature of sex within the three synchronized bodies in the process of online activities. Tinysex, also called cybersex, computer sex, Internet sex, netsex, or mudsex, refers to a virtual sex encounter in which two or more people connected to the Internet remotely communicate, sending sexually explicit descriptions or describing a sexual experience, in order to simulate and participate in a mimetically sexual intercourse. This fantasy sex is often accomplished by written form in which the participants describe their actions, respond to their partner's flirting words, share and exchange their sexual feelings and fantasies (Hahn, 1996). Sometimes, it is also companied and enhanced by a real-time video transmission between the partners.

Developing Tinysex successfully depends on the participants' ability to evoke a vivid, visceral mental picture in the minds of their partners' (ibid). Apparently, synchronous online communication plays a core role in Tinysex and any other kinds of cyber communications. An ethical dilemma accompanying Tinysex from its birth is judging if Tinysex is cheating or infidelity in a marriage or love relationship (Turkle, 1997). I do not intend to discuss the criterion of infidelity, but, highlighting this dilemma precisely supports my definition of sex. On the one hand, it is called a dilemma because people fail to define Tinysex as biological infidelity or soul infidelity. This difficulty demonstrates that Tinysex is an embodied phenomenon with vividly sexual experience but without bodily intercourse. In my view, this case precisely proves that in the information era, the body and the mind are an entity, where synchronicity as a thinking perspective makes sense of it. By seemingly separating the symbolic aspect of the body from the biological aspect, or in other words, separating the mind from the flesh, in turn, does underpin that these two aspects are unseparated. Otherwise, there is no dilemma at all. On the other hand, imagination plays a core role in Tinysex, because it not only evokes sexual desire between participants therefore guarantees the virtual intercourse realized, but also blurs the ethical bottom line and results in the dilemma. Tinysex is an extreme example, but it does support my assumption of the concept of sex. Imagination is the bridge connecting the biologically erotic part of sex, "social assignment of identity" part as well as the feeling and experience part together, and makes them embodied in the body assemblage.

To sum up, in terms of the avatar body, sex becomes a symbolized label of the avatar appearance and profile. In terms of the notion of sex, with the emergence

of cyberspace, “the social and morphological assignation of identity” aspect of sex seems to separate from the “suitable form of erotic agency to subjects”, acting in cyberspace and online activities. However, the case of Tinysex does reveal that these two aspects are unseparated, and the concept of sex is self-embodied.

4.3.3.3 Multiple Gendered Body and Gender Roles

Regarding the crucial question of “are these three bodies gendered”, my answer is that the avatar body is a gender experienced, while the gaming body as a process body is a gender switchover, or is an embodied function. It does not mean the gaming body is gender-free, rather it is the function of gender switchover *per se*. Since the gaming body can be understood as a concretization of embodiment, I would like to clarify that, first of all, the gaming body is emerging and only existing in the course of online game playing, therefore, the gaming body is a temporary body when embodiment is functioning, and the other two bodies (the player’s body in the physical world and the avatar body on the screen) are synchronously cooperating.

In terms of the notion of gender I argue that in cyberspace, the avatar develops another dimension of gender, which is playing, performing and even experimenting gender(s). In other words, the avatar in some sense turns the emphasis of gender to gender experience rather than gender norms. Meanwhile, this kind of gender experience, especially for some players who perform both genders, for instance CyFishy, in turn, gradually changes the notion of femininity and masculinity. Put another way, the concept of gender is still concerned with sexual difference between the feminine and masculine, but at individual level, one can be simultaneously both of them and neither of them. It does break the hierarchy between the feminine and masculine and then develops an emphasis on difference.

To this end, I would like to start my analysis with the avatar body. I argue that the choosability of gender and the sequent multiplicity of gender suggest that the avatar body is gendered, even multi-gendered. In the case of CyFishy, the female player has two avatars, one is male, the other is female. Hereby, for these two avatars, sex is, as I argued above, symbolized with a man or a woman appearance. What is really functioning is gender. When these two avatars start dating, the player is switching between the feminine and masculine, to make sure that the dating and romantic relationship can continue. At an individual level, what important for her is not what femininity or masculinity means, but how being feminine and masculine feels. In this sense, for this player, on the one hand, gender is more about gender experience than social norms; on the other hand, she can be simultaneously feminine and masculine. Putting her case

in the internet network society, when she is communicating with other multi-gendered avatars with either CyFishy (her male avatar) or Beginning (the female avatar), the multiplicity of gender and gender performance is being staged. Either femininity or masculinity is a cultural and social code which is historically constructed and constrained by social discipline and norms. However, the fact that one person can experience multiple genders in cyberspace makes the integration and fusion of opposite genders together into one body (a body fusing with the mind seamlessly) possible. On the other hand, this possibility triggers the conflict within one person, if he or she chooses to act as an opposite gender. Sometimes, it is harmful to the psychic health, or in reverse, it is helpful. This inside conflict undermines the rules shaping gender, and animates the dynamics between two genders in the physical world.

This dynamics between two genders can be illustrated by the Yin-Yang emblem, which I have introduced in chapter 2 to rethink the issue of boundaries, and employed its perspective of viewing the body as the product of life dynamic to redefine the body in the condition of synchronicity (see chapter 2.1.3, and 3.2). The static Yin-Yang emblem shows how two opposite sides are inter-dependent with each other, just like femininity and masculinity, which are, in some sense, defined by the other. It is not necessary to coin a term of masculinity, if there is no femininity, and vice versa. Meanwhile, the boundary between them is not a clear and straight line, but curving into each side, while the specific shape of the boundary line depends on every individual's specific understanding and experience about both genders. In the case of the avatar, the experience of gender performance in online game playing can be absorbed into the formation of one individual's understanding. Furthermore, the rotating Yin-Yang emblem, in my view, precisely indicates and depicts the dynamic relationship between two genders in the context of online gaming and other activities. As CyFishy's story shows, the distinction between femininity and masculinity always exist, just like the boundary between the Yin side and the Yang side is always there, no matter how curly it appears. At one moment, it is possible that the Yin side (femininity) is dominant, but the next moment, maybe the Yang side (masculinity) is dominant. The point is this distinction always exists, but the shape and the position of it is always shifting.

I argued that both embodiment and disembodiment are not something fixed, but energy and dynamic tendencies that are inter-dependent with each other, and, thus, the boundary between them is continuously changing its shape.

Here, I would like to explain the reason why I prefer "gender" to "sexual role", since it is concerned with not only the notion of these concepts but also with the rules and disciplines, or in Butler's words, the frames. I am referring to a song *Two Fathers* sung by a Dutch body Terrence who was raised up by a homosexual couple, to distinguish the concept of gender from the sexual roles. Although this song is about the assignment of gender and sexual roles in family life, it is still significant to the life on the screen. Traditionally, gender is about

the feminine and masculine, while father and mother are fundamentally sexual roles corresponding to each gender. Usually, male- masculine -father is a traditional process of identification for men, and female- feminine – mother for women. As he sings, "*When I have to go bed, Diederik checks my homework, and Bas does the dishes or is doing laundry"*. Growing up in a unique family constituted by two men, Terrence has and only has fathers. In his life, the role of mother is missing, but if it is necessary, both of his two fathers can take over this role. *"I have two fathers, two real fathers, who, if they have to, both can be my mother."* I would like to analyze this case in two dimensions. The first one is that I still use the concept of gender, because there is more space for its development and transformation. Gender is a mediate concept, and can be used in wider fields. For this case especially, the relationship between gender and sexual roles is worth discussing – the masculine can also be accordance to the role of mother. Thus, this case demonstrates the possibility of changing the rules. In Terrence's case, all those linear connections get broken, because the authority who enacts gender disciplines is no longer the social and cultural disciplines, instead he and his two fathers are the rule makers in their lives. They situate their positions in their own way, find meaning and make sense of it by redefining themselves. This change echoes the argument I made in section 2, which is that the micro and individual level of human life has been so enlarged, stressed and empowered to make rules as well as identify themselves and roles in their own lives.

Terrence's song can also be seen as a comfort to the tragedy of David Reimer, whose story has been analyzed by Butler in her book *Undoing Gender*. In Butler's analysis, Reimer, as a transsexual, fails to identify himself in any existing frames, while Butler also fails to find the third way which is in-between these frames for him (see 4.1.1). I have proposed that this failure is caused by Butler's adherence to discourse and frames, leaving no room for the body and the bodily experience. Practically, Terrence's story shows how people are able to redefine their sexual role and make it meaningful in their own way, under the condition that the individual level of self-identification is enlarged and stressed. Theoretically, Terrence's story leads the researcher's attention back to the embodied human life.

People also have opportunities to refine or re-identify themselves in cyberspace, although it is a virtual space but the relationship and communication with others are authentic. In cyberspace, gender is formed not only by disciplines in the physical world, but also by technological laws and a new value structure established in the integrated world. The renewed rules are not purely cultural or technological, but combine both of them. Meanwhile, in online game playing, since the new rules are applied in an integrated world aiming for play and fun, the punishment is not physical therefore is not compulsory. It suggests that the rules are relatively flexible, allowing the diverse possibilities of gender forms. People have the rights and choices to be another person with opposite sex or

gender in different contexts at random, which empowers them the rules maker for their own identity and lives.

Last but not least, I would like to discuss about the relationship between sex and gender, after the dichotomy is broken. On the basis of the "three bodies" theory in the condition of synchronicity, both sex and gender become multi-layered. For the concept of sex, I have demonstrated how the synchronicity technology illustrates its aspect of "the social and morphological assignation of identity" from the aspect of the "suitable form of erotic agency to subjects", by visualizing and positioning these two aspects in different spaces respectively. Meanwhile, Tinysex as well as the "three bodies" theory, in turn, not only underpin this notion of sex, but also confirms that these two aspects implicit in sex are inseparable. The concept of gender, as analyzed in this subsection, is also multiplied.

As a result, I argue, since both of these two concepts become multi-layered, the sex/gender dichotomy is broken and the relationship between them becomes more fluid and more indirect.

I want to highlight these two concepts' direct relation to the body, even though the body becomes an assemblage configured by material and non-material bodies with different existing form, inhabiting different spaces. The deconstruction of sex/gender dichotomy does not mean that gender is not one of the methods of identification any longer, especially, in the sense that cyberspace is a world for genders and gender performances. What differs from classical feminist theory is the relationship between sex and gender and the notion of those two concepts, while the links between the body and gender, as well as between the body and sex, are still existing and working in an embodied way.

In conclusion, based on the multiplicity of the concepts of sex and gender, as well as their nonlinear relationship, the individual level of identification is enlarged and stressed. By demonstrating the way in which the embodiment theory reshapes the connection between sex, gender and the body, my theoretical exploration also confirms the embodied nature of both sex and gender, therefore, the embodied nature of subject, to which they are engaged in its formation, is also underpinned.

Conclusion

In formulating a conclusion to this dissertation, let me revisit the questions that have motivated it in the first place, as I outlined in the introduction. As a former MMORPG player, my research interests were evoked by questions that long intrigued me, such as "how to re-define the real and the virtual in the information era" and "how to identify oneself in a situation where the avatar's gender is negotiable". I wanted to explore their theoretical potential and social significance. These questions logically led me to embrace the two issues inherent in the research on the avatar, namely the opposition between the real and the virtual world, as well as the distinction between embodiment and disembodiment. This dissertation can be viewed as a theoretical exploration and reflection on these two inter-related issues. Additionally, as indicated by one of the core terms of the title, synchronicity has emerged as a key concept. I have aimed to contribute theoretically to deal with these two oppositions as a way of answering the question of their interaction. By extension, I also aimed to produce a sharper theorization about the relationship between technology and the humanities by methodologically finding the "missing link" among at least some disciplines. Rather than directly giving answers to these questions of the virtual vs. the real and embodiment vs. disembodiment, I have proposed three concepts as the keys to an in-depth reflection on the situation of human beings in the information era. These three concepts are imagination, embodiment and synchronicity.

By constructing an interdisciplinary exploration on the avatar in the media environments such as online game playing and other activities, I have shown that a combination of media, cultural analysis, feminist theory and phenomenology of the body is capable of integrating an understanding of the avatar across several disciplines. This dissertation can be viewed as a research which employs the avatar as a specific research object; it upholds the embodiment perspective; it scrutinizes the changes of the concepts of the body, sex, and gender, in the digitalized environments of online games; and unifies its finding through the prism of synchronicity. To carry on the research, I have opted for literary theory, new media theory, game theory, phenomenology, the Daoist Yin-Yang emblem, and feminist philosophy.

This dissertation shows that the avatar, as an embodied simulacrum of human life, becomes engaged in the process of identification of the players. In this transformation, the faculty of imagination plays an important role. Not only does it empower online games, which is also called "shared fantasy" (Fine 1983), with the charm of having an extraordinary venture in a wonderland, but also, due to the shared nature of games, it acts as the fundamental element of

building a network connecting massive multi-players. On the basis of the online network, the imagination expands from the means of artistic creation to a means of identification and identity-foundation. An avatar, as an inhabitant in online games, therefore, becomes the performer and protagonist engaged in the process of the identification of the player.

I have argued that, the individual level of identification has been enlarged and empowered in the media synchronicity environments. The process of identification takes place at two levels: the generic level and the individual level. The former refers to the process within which an individual identifies oneself with a collective identity, such as nationality, ethnicity, gender, or even some specific group. The latter is taking place within the Self, and also is the focus of this research. I have demonstrated that the information technology triggers a series of changes to the categories for identification, including the body, sex, and gender, not only in terms of knowledge and self-recognition, but the notion of these concepts. I showed that, for an individual player, there are three bodies synchronously co-existing during the course of online game playing: the physical body sitting in front of a computer, the avatar body on the screen, and the gaming body in-between connecting the former two bodies. In such a context, gender has become multiple, as highlighted by a few stories of game players'. Considering the categories of the body, sex and gender, have been renewed and multiplied, the individual level of the process of identification needs to be paid more attention to.

I have sustained the five hypotheses which I outlined in the introduction. The first hypothesis, considered as the fundamental of the dissertation, is that *by means of the imagination, the experience of playing an avatar is getting involved in the process of identification of the player*. By raising the concepts of synchronicity, the second and the third hypothesis specify the contexts for the first one, proposing the ideas of an "integrated world" and a reframed time-space structure. Secondly, I posit that *with the support of synchronicity technology, and through the avatar, the physical world and cyberspace are seamlessly combined into what I would like to call 'the integrated world'*. The third hypothesis is that *synchronicity as a kind of technology changes the way the real and the virtual are defined and reframes the relationship between time and space*. The fourth and the fifth one are concerned with re-scrutinizing the concepts of the body, sex and gender, respectively, on the basis of the former three hypotheses. The fourth one is that *the emergence of the avatar proposes the existing digital form of the body and then changes the way in which the body is defined*. Fifthly, I posit that *the fact that a player can create multiple avatars with different genders arbitrarily changes the notion of gender as well as the dichotomy between sex and gender*.

I have sustained those arguments through both theoretical explorations and several cases analyses, intertwining with the practice of interdisciplinary methodology. In the first stage, I have proved that the avatar is related to, and

participates in, the process of identification. To deal with the conflict between the real and the virtual that is inherent in the avatar, I have appealed to the imagination to bridge these two aspects. Based on this notion, I highlighted the importance of both the imagination and the cybernetics technology for the avatar. In the next stage, I have teased out the connection between the visualized imagination which is embodied in the avatar and the issue of identity and identification embodied in the player. Hence, I have sustained the first hypothesis, which is that *by means of the imagination, an avatar is getting involved in the process of identification of the player*.

In the following step, I have dealt with what difference the avatar makes in terms of identification in two dimensions, which reflect the two basic oppositions, namely, the real and the virtual on the one hand, and embodiment and disembodiment on the other. I outlined the three major characteristics of the avatar, which are the integration of the imagination and cybernetic technology, the capability of negotiating with massive multiplayers through their avatars, and the feedback loop mechanism which technically supports the real-time communication. Among these three characteristics, I have emphasized synchronicity, which is based on the feedback loop and is viewed as both a function of the Internet technology and a thinking perspective. Synchronicity activates us to rethink the issues caused by the binary opposition in thinking, in particular between the real and virtual. On the basis of the synchronicity perspective, the real world and cyberspace are synchronized, therefore, the boundary between them is blurred. To describe the outcome of synchronizing the real world and the virtual world, I have coined the concept of an "integrated world". By far, I have sustained the second hypothesis: *with the support of synchronicity technology, and through the avatar, the physical world and cyberspace are seamlessly combined into what I would like to call 'the integrated world'*.

By referring to the theory of online network society, I have shown that synchronicity functions not only between one player and one's avatar, but also between one player, other massive multiplayers and their avatars. In other words, by synchronizing activities in different places even in different spaces sharing the same timeline, namely the physical world and cyberspace, the synchronicity perspective challenges the time-space relationship. It also offers a new perspective to organize and comprehend the categories for identification. I hereby have sustained the third hypothesis that *synchronicity changes the way in which one identifies oneself by breaking and multiplying the time-space frame that one is used to*.

Moreover, I have relied extensively on the idea of embodiment to begin with. By framing the trajectory from "behavior" to "performance", I have pointed out that, for the avatar, the capability of interacting and cooperating with the player, especially the embodied nature of the interaction, is the fundamental support which makes sure the games run steadily. The embodied interaction breaks the

so-called "magic circle", the traditional concept referring to the boundary between the game world and the real world, and also leads to an "integrated world". As the capability of crossing the "magic circle" and shaping an "integrated world" comes from the embodied nature, everyone has their own way and their bodily experience to fulfill this capability. Thus, I have shown that defining the "real" depends on the individual experience, therefore, the real does not have to be the material. By stressing the concept of the embodied experience, I have argued that the way in which one defines the real should be explored and thought of in terms of embodiment, instead of material/materialism. I have then applied this perspective, along with the imagination of individual identity which plays a crucial role in the process of the individual identification, to rethink and renew the concepts of the body, sex, and gender. Through my argument in chapter 3 and 4, I have explored the new notions of these concepts, and then, I have sustained the fourth and the fifth hypotheses, which are: *the idea of the existing digital form of the body changes the way in which the body is defined; a negotiable "choosability of gender" changes the notion of gender as well as the dichotomy between sex and gender*. Considering that the review and analyses on these two hypotheses are overlapping with my findings and contributions to gender studies and feminist theory, I will elaborate on these two issues in the third subsection.

This conclusion frames the theoretical and methodological contributions made by demonstrating and sustaining the hypotheses I have raised in the introduction, to both digital media studies, game studies, and to gender studies, as well as potential directions and aspects for future research. Firstly, I emphasize the interdisciplinary methodology of this dissertation, through which I show that both new media studies and feminist theory are capable of accommodating each other and are suitable for an interdisciplinary methodology. Secondly, I outlined the contribution to the field of new media studies, specific to the theorization about the digital media and humanities, the relationship between online experience and offline life. I also highlighted "synchronicity" as a new perspective evoked by digital media to re-think the issue of online experience intervening in offline life, and thus influencing the process and the way of identification. Thirdly, I stress the contribution made to the field of gender studies and feminist theory, in particular, to the interdisciplinary nature of feminist methodology and to rethinking the three core concepts which are the body, sex, and gender. By showing the capacity lying in feminism of "extensive borrowing of notions and concepts that are deliberately used out of context and derooted from their initial purpose," (Braidotti 2011: 66) I confirm the view of feminism as a research perspective rather than a purely academic domain. I also sustain the fourth and the fifth hypotheses that I have raised in the introduction. I would like to clarify that, some contributions to new media studies and gender studies are interwoven in the dissertation, just like the interdisciplinary methodology I have adopted, but hereby are concluded respectively in the conclusion chapter. Last but not least, I propose the possible direction for future research, that is to integrate the

concepts of synchronicity, embodiment with the Daoist Yin-Yang perspective to explore the relationship between technology, in particular information technology, and human life.

1. Interdisciplinary Methodology

My dissertation aims to contribute to the potential growth and development of an interdisciplinary methodology. I opted for an interdisciplinary methodology, not only because the topic of the avatar *per se* is inherently interdisciplinary, but also to challenge the separation between different disciplines following the direction that different theorists take. I would like to stress that, this dissertation, in terms of methodology, should be viewed as research in cultural and media studies perspective, which relies on an interdisciplinary method in order to looks at "difference" and "multiplicity".

To do that, I have deliberately taken the risk of avoiding an over-arching theory of the avatar, and I stressed that my approach to the research on the avatar is from cultural and gender studies instead of the analysis of software, algorithms or neuro science. I situated my interdisciplinary research approach by zigzagging among multiple theories from different disciplines, following the logic threads of the "missing link" constituted by the three concepts of the imagination, embodiment and bodily experience. Put another way, the "missing link" is forged by these three concepts, specifically, by the embodiment principle in conjunction with the synchronicity function.

Following the first thread of imagination, I adopted literary theory, game theory and Baudrillard's theory of the simulacrum to analyze the role of imagination in both literature and game playing as well as the simulacrum nature of the avatar. Departing from Braidotti's feminist theory which calls for an embodied subjectivity, I intertwined the second and third threads together, namely the concepts of embodiment and experience. In chapter 2 and 3, I opted for three phenomenologists' theory to create a mutually complementary context. I borrowed the idea of the reflexivity of experience from Sobchack's film theory, the idea of "the body in code" in digitalized environment from Hansen, and the feminist perspective on embodiment from Wegenstein's theory of digital media. I then integrated them together to achieve a theoretical position which emphasizes the embodied experience in the digitalized environment. By referring to the theory of social politics about identity and the Lacanian psychoanalysis theory of the "mirror stage", I confirmed that the imagination, which is used to be a means of artistic creation, has developed another aspect that is the image of identity.

By appealing to the feminist theory and the research outcome of game studies, I applied this theoretical perspective to rethink the changes in the concepts of the body, sex, and gender, in chapter 3 and 4. I stressed that the concept of the body has become an assemblage activated by life dynamic, which is beyond the material/non-material opposition and highlights the embodiment principle rather than materiality and materialism. I also illustrated that the concept of gender has become a process, within which, for an individual player, gender has become multiple and choosable. For an online network, on the other hand, gender has developed and expressed as a gender performance which continuously challenges the definition and distinction between femininity and masculinity. This is the path I chose to address the questions that I raised in the introduction.

2. The Avatar in A Synchronized Environment

As the avatar *per se* is a product of digital media, I aimed to contribute to the research field of new media studies and game studies. This research is constituted by a theoretical exploration and a few cases analyses of the avatar in online game playing and other activities, which demonstrate the avatar's influence on the way in which one identifies oneself, as argued, by culture and gender studies. I put the avatar in the context where the individual level and the network society level are intertwining with each other, which not only stresses the relationship and interaction between one avatar and the player behind it, but also evokes the potential for connecting the avatar to the issue of identity. This context is based on two findings of this dissertation, which are the concept of the "integrated world" and the synchronicity principle.

To elaborate on that, in chapter 1, I focused on the simulacrum nature of the avatar, and outlined its main characteristics by comparing them with the characters in a novel, which is a more traditional type of simulacrum. These three characteristics are the integration of the imagination and cybernetic technology, the capability of negotiating with massive multiplayers through their avatars, and the feedback loop mechanism which technically supports the real-time communication. These characteristics embrace the points of view of both the imagination and embodiment, which immediately raise the issue of the oppositions lying in the research on the avatar, namely the opposition between the real and virtual, and between the embodied and disembodied. By juxtaposing the faculty of imagination with cybernetics technology, I have broken the opposition between them (Baudrillard 1991, Bottici 2011) and connected them together as two indispensable elements of the emergence of the avatar. In this vein, I have defined the avatar as a simulacrum of human life which is visualized and activated by the resultant of imagination and cybernetics technology in an integrated world.

One aspect of my contribution to the theories of digital media and online games, is the concept of the "integrated world" which coined in order to replace the concept of the "magic circle" (Salen & Zimmerman 2004; Copier 2009), to describe the environment where the avatar inhabits. As explained in chapter 1, the concept of the "integrated world" stresses that the world one lives in has to integrate the physical world and the virtual world crafted by Internet technology. As a result, considering that some players expand their relationships with other on-line players into their physical life, it is necessary to update the old perspective of viewing the online and offline life as separate and start to consider them as one single entity. Furthermore, an integrated world suggests that everything is structurally dynamic and hence changeable. In nature, nothing is fixed, therefore, the player or everyone who has participated in any online activities potentially needs to re-build or re-shape their identity. Additionally, due to the seamless integration of these two spaces, the concept of the "integrated world" also embraces the possibility of Internet addiction. It is important to note that this aspect has not been taken into account in this dissertation. This integrated world is a fusion of the physical world which is constituted by the material, and the virtual world which is created and supported by electronic images and computer software, thus, materiality or materialism is not adequate enough to describe and make sense the new environment where the material and non-material are connected. Embodiment perspective, as a substitution of materiality, avoiding the binary opposition between material and non-material, focuses on the interaction between the player (the material) and the avatar (the electronic image on the screen), as well as the interface between them. In this vein, I have stressed the shift of the research perspective from materiality/materialism to embodiment in the condition of the integrated world. Meanwhile, by raising the concept of the "integrated world", I have built a context for re-scrutinizing the concepts of the body, sex, and gender, in chapter 3 and 4, respectively.

The most significant finding of this research is the concept of "synchronicity", which should be viewed as both a function and result of the digital media as well as a thinking perspective aroused by the media. I have initially mentioned in chapter 1, that the feedback loop mechanism is related to the media synchronicity. Meanwhile, as a principle of information technology, synchronicity reverses the traditional time-space frame within which space is fixed, while time is fluid, creating a new frame within which multiple spaces are synchronized but sharing the same timeline. The synchronized frame creates a section, a slice of life dynamic captured by and presenting the fusion of human being and technology. Within this frame, cyberspace and the physical world are synchronized, and the interaction between these two worlds are embodied in the players interaction with their avatars. As a function of digital media as well as the fundamental technological support to online games, I have pointed out that synchronicity leads to and realizes the fusion of mind and the body. Synchronicity thoroughly blurs and invalidates the distinction between outside and inside as well as the hierarchy between the mind and the body, by

visualizing the very moment of the integrated world. It therefore changes the traditional way one comprehends and defines time. Consequently, this synchronized frame is not linear, rather it is a multi-layered and multi-dimensional landscape. Therefore, I do believe that the synchronicity, both in terms of a technology and a principle, is significant enough for further research in the near future.

On the basis of the synchronicity principle and the phenomenological concept of reflexivity, I have developed the "three bodies" theory. As I have detailed in chapter 3, during the process of online game playing, there are three bodies existing at the same time, which are the physical body of the payer, the avatar body on the screen and the gaming body in-between. Paying closely attention to the concept of the gaze, I have argued that synchronicity also changes the way and the direction of the gaze, and then makes difference on the process of identification, on which I will elaborate in the next subsection. Hereby, I would like to highlight the cross-reference between the field of new media studies and gender studies, which has confirmed the productivity of an interdisciplinary method.

3. Rethink the Concepts of the Body, Sex and Gender in online games

In addition to the practice of an interdisciplinary methodology, I also aimed to contribute to gender studies and feminist theory, by emphasizing the embodiment principle and looking at the changes of the concepts of the body, sex, and gender, which are triggered by the avatar and interdisciplinary thinking.

One of the major findings of this research is the epistemological shift from materialism to embodiment in the condition of the digitalized environment, which is always intertwining with the concept of the body. On the basis of the comparison between the avatar and characters in a novel in chapter 1, I initially highlighted embodiment as a principle by tracing back and drawing the path from "behavior" to "performance", and to call for the striking back of the body in the digital environments. To refute some radical statement made by computer scientists which pushes the scientific disembodiment to the limit, and even views the universe as a "giant computer", I went back to the three orders of cybernetics, revealing that the development of this discipline is a struggle between disembodiment and embodiment. By looking at the Visible Human Project (VHP), I stressed that the fundamental goal of technology is to serve people. In the information era, the research focus has to shift from judging whether something is material or not to stressing the interface where and how the human being and the visualization technologies are encountering each other, as the example of TinySex demonstrates. That is the point of embodiment. In

the same vein, in chapter 2, I have distinguished embodiment from materialism, confirming that embodiment is the fundamental principle of this research to comprehend the environment in the information era.

To reflect on the inevitable question about the relationship between embodiment and disembodiment, considering that the latter has been enormously enlarged in the past two decades, I referred to Haraway's theory of cyborg. In particular, I am impressed by her point of view on boundaries, and transplanted it into the online gaming environment. I have introduced the Daoist Yin-Yang emblem to rethink the issue of boundary, specifically the boundary between embodiment and disembodiment. I argued that both embodiment and disembodiment are not something fixed, but energy and dynamic tendencies that are inter-dependent with each other, and, thus, the boundary between them is continuously changing its shape. I have clarified this point of view in my argument and analysis on the concept of the body, sex, and gender. Meanwhile, I also stressed that the distinction between the physical body and the avatar body on the screen, as well as the one between femininity and masculinity, does exist, but the process of embodiment changes the boundary between them.

The other contribution I made to gender studies and feminist theory is my own findings of the changes to the concept of the body in the integrated world, in particular in the digitalized and synchronized gaming environments. Also based on the Visible Human Project (VHP), I have stressed the concept of the "existing form" of the body, to renew the conception of viewing the body as merely flesh, and to highlight the importance of the digital form of the body. Not only does this concept enrich the notion of the body and the perspective to define the body, but it also highlights that being physical and flesh is merely one form of the body's existence. The latter result has directly led me to find that: 1) the body had been defined as and only as a physical being before the emergence of the digital form. Precisely because of that, however, some feminist theory has over-emphasized the discoursive nature of the body but ignored the corporeality of the body. 2) The emergence of the digital form also stresses that focusing only on the corporeality of the body is not adequate enough in the contemporary era. These two findings, namely the body as physical-digital compound and the inadequateness of only accounting one single form of the body, suggest that the materiality of the body is the basis for all theory construction although some scholars have ignored it. Thus, even materiality is not enough to support and describe the condition which the body confronts, and the substitution concept must be closely related to the body. That is embodiment. It also suggests that, to renew the notion of the body is imperative, while the structure of theoretical scholarship needs to be reconstructed.

Viewing the physical as only one existing form of the body opens the door for going beyond the material/non-material criterion of the body. It, therefore,

paves the road for a renewed definition of the body. Furthermore, as explored in chapter 3, inspired by Sobchack's phenomenological film theory, I adopted her thoughts about the reflectivity, the embodied experience, and the "film's body". The "film's body" she raises, following both t phenomenology and the aesthetics perspective, goes beyond the material/non-material opposition, and legitimizes the non-flesh, even non-material ingredients of the film, such as the vision and scenes, as a part of the body. By applying her thoughts to the research field of game studies I have raised a "three bodies" theory to describe the change to the body in the synchronized online game playing. I have stressed that, during the temporary process of game playing, there are three bodies co-existing and cooperating with each other, which are the physical body holding the mouse, the avatar body on the screen, and the gaming body in-between. I have argued that the body has become an assemblage activated by life dynamic, not only in terms of the existing forms, namely the three bodies emerging and cooperating in the course of online game playing, but also because of the way in which every single body lives, and the way every organ, body part, and its faculty and sense, works and co-work. As the synchronicity perspective suggests, these three bodies inhabiting different spaces are synchronized, thus, at a specific moment, these three bodies belonging to one player constitute a frame, a slice of life. Within this frame of one individual player, the gaze, which is a very important concept also in feminist theory, in relation to the process of social norms and disciplines in shaping sexual roles, has changed its direction from external to internal, and has become a vision. Therefore, I have argued, the concept of the gaze evolves from external to an internal vision floating within the time frame where different bodies are inhabiting different spaces, within "between and beyond" the self and the other. Through the argument about the concept of the body, I have sustained the fourth hypothesis, that is *the emergence of the avatar proposes the existing digital form of the body and then changes the way in which the body is defined*.

My research also has looked at two other core terms of feminist theory, which are sex and gender. Departing from the embodiment perspective, I have reviewed some of the contemporary feminist theories and their definition of the concepts of sex and gender. My review includes Butler's theory of gender performativity, Delphy's Marxist feminist perspective, Braidotti's "sexual fibre", and the feminist phenomenology of Young and Kruks. I have stressed that, in the synchronized environment, the idea of "embodied experience of the lived body" has replaced the concept of sex, whilst gender has become a gender performance from gender norms. In this vein, contrary to Young's demarcation that the lived body is an approach to subjectivity while gender is remained in social structure, I have stressed that gender is also an embodied performance and therefore is engaged in the process of identification and self-construction. Based on which, I have distinguished the gender performance in the integrated world from Butler's gender performativity, by highlighting that the former is based on an embodied subjectivity, while the latter is a discoursive-oriented repetition. Through an analysis of stories of CyFishy, an online game player, I

have emphasized one of the unique capabilities of the avatar, namely that a player can create multiple avatars with different genders at will, so as to explore the possible consequence of gender performance. I have argued that, for an individual player, gender has become an option, and as a result, developed into a multiple and dynamic entity. In other words, for an individual player, gender refers to a sexual role more than a social norm, thus, gender can be both feminine and masculine, or neither of them. However, this change does not mean that there is no difference between femininity and masculinity. On the contrary, this distinction continues to exist, but continuously shifting. I have sustained the fifth hypothesis, which is that *the fact that a player can create multiple avatars with different genders arbitrarily changes the notion of gender as well as the dichotomy between sex and gender*.

To sum up, turning back to the fundamental aim of this research, the conclusions of the previous four chapters have proved that, on the one hand, the avatar is participating in and continuously challenging the process of identification; on the other hand, through the prism of synchronicity and embodiment, the individual level of identification has been enlarged and emphasized. This research is a result of my own investigation, reflections and insights. I hope that it will evoke further debates on the issue of identity performance in online game playing, as well as on interdisciplinary methodology.

4. The Potential and Possible Directions for Future Research

I hope that my attempt at developing an interdisciplinary methodology can embrace even richer potential than what I have shown in this dissertation. In particular, with the combination of the Daoist Yin-Yang assemblage, the recovery of the body in the technology-oriented era, and the synchronicity space-time frame, I want to make the point that some difference and further contribution will be made in both new media studies and gender studies.

I have tried to introduce the traditional Chinese philosophy, the Daoist Yin-Yang emblem to rethink the relationship between embodiment and disembodiment, especially I believe in the perspective based on monism as well as difference that Daoism proposes. "Out of Tao, One is born; Out of One, Two; Out of Two, Three; Out of Three, the created universe. The created universe carries the yin at its back and the yang in front; through the union of the pervading principles it reaches harmony" (Lin Yutang 1958: 206). In my view, this Chinese philosophy has potential to offer a new perspective to rethink the binary oppositions, for example, between the real and the virtual, embodiment and disembodiment, and between humanities and technology.

As the most significant finding of this research, synchronicity offers a perspective from another angle, which is concerned with rethinking a frame of time and space. This perspective is very appropriate to the digital technology as well as online games. I have proposed a model for this frame, which I called a multi-dimensional coordinate, within which both players and their avatars co-exist and anchor their identity and subjectivity.

The main direction for my future research is to employ the Daoist perspective at a general level to deal with the binary oppositions, and the synchronicity principle to embark on reframing the relationship between time and space. Putting them together will allow for further exploration on the issues that I have started to explore here, but not developed completely. For example, I would like to propose the issue of the subject in the synchronized environments such as in online games and other activities, or the question of how one anchors one's identity and subjectivity within the multi-dimensioned coordinate framed by the synchronicity technology. The above issues can be conducted as Digital Humanities, as K. Hayles defines it, namely "a diverse field of practices associated with computational techniques and reaching beyond print in its modes of inquiry, research, publication, and dissemination." (Hayles 2012: 27)

In this respect, my interdisciplinary dissertation reflects the times of transition in which it was written. It may well be that, to do justice to the complex and embodied interaction between digital avatars and their human players (and vice-verse), the theoretical tools of gender, media, game, and cultural studies need to be pushed even further. Moreover, it may well be that, some Non-Western theories need to be introduced, towards new trans-disciplinary and cross-cultural formations. This perspective makes the questions of my dissertation all the more urgent: what embodied subjectivity can sustain the digital dimension? What modes of relation and responsibility are engendered by their interaction which intertwines conflict and unity? What frames of containment?

My dissertation is a humble contribution to these crucial questions. And in the meantime, the game just goes on!

Bibliography

Aarseth, E. (2003, May). Playing research: Methodological approaches to game analysis. In Proceedings of the Digital Arts and Culture Conference (pp. 28-29).

Abram, D. (1997). *The spell of the sensuous*, New York: Vintage Books.

Au, W. J. (2008a, May 22). The Husband That Eshi Made. [Web log]. Retrieved from http://nwn.blogs.com/nwn/avatars_and_identity/page/39/

Au, W. J. (2008b, June 18). Thursday's Traveler: The Avatar Who Loved Himself. [Web log]. Retrieved from http://nwn.blogs.com/nwn/2008/06/thursdays-trave.html

Balsamo, A. (1996). The virtual body in cyberspace, *Technologies of the Gendered Body: Reading Cyborg Women*, (116-132). Durham: Duke University.

Baudrillard, J. (1991). Simulacra and Science Fiction (Simulacres et science-fiction). (A. B. Evans Trans.). *Science Fiction Studies*, 18(3), 309-313.

Baudrillard, J. (1998). Simulacra and Simulations. In Mark Poster (Ed.), *Selected Writings*(pp. 166-184). Stanford: Stanford University Press.

Bell, D. (2007). *Cyberculture theories: Manuel Castells and Donna Haraway*, USA& Canada: Routledge.

Boellstorff, T. (2011). Placing the virtual body: Avatar, chora, cypherg. In Mascia-Lees, F. E. (Ed.), *A Companion to the Aanthropology of the body and embodiment* (Vol. 22), (pp.504-20). Wiley-Blackwell.

Bottici, C. (2011). Imaginal politics. *Thesis Eleven*, 106(1), 56-72.

Braidotti, R. (1993). Embodiment, sexual difference, and the nomadic subject. *Hypatia*, 8(1), 1-13.

Braidotti, R. (1991). *Theories of gender, or: 'Language is a virus'*, Utrecht University, Openings college.

Braidotti, R. (1994). Body-images and the pornography of representation, In K. Lennon & M. Whitford (Eds.), *Knowing the difference: feminist perspectives in epistemology* (pp.17-30). London & New York: Routledge.

Braidotti, R. (1996). Nomadism with a difference: Deleuze's legacy in a feminist perspective. Man and World, 29(3), 305-314.

Braidotti, R. (2002). *Metamorphoses: Towards a materialist theory of becoming*, Cambridge: Polity Press.

Braidotti, R. (2003). Feminist philosophies. In Mary Eagleton (Ed.), *A concise companion to feminist theory* (pp.195-214). Oxford: Blackwell Publishing.

Braidotti, R. (2011). *Nomadic theory: The portable Rosi Braidotti*, New York: Columbia University Press.

Braidotti, R. (2012). *Nomadic Subject*, New York: Columbia University Press.

Butler, J. (1988). Performative Acts and Gender Constitution: An Essay in Phenomenology and Feminist Theory. *Theatre Journal*, 519-531.

Butler, J. (1990). *Gender Trouble: Feminism and the Subversion of Identity*, New York: Routledge.

Butler, J. (1993). *Bodies That Matter: On the Discursive Limits of "Sex".* New York, Routledge.

Butler, J. (2004). *Undoing Gender*, New York, Routledge.

Butler, J. (2009). *Frames of War*. London & New York: Verso.

Castells, M. (2010). *The Rise of the Network Society*, second edition with a new preface, Malden: Wiley-Blackwell.

Castronova, E. (2005). *Synthetic Worlds: The Business and Culture of Online Games*, Chicago& London: The University of Chicago Press.

Chee, Florence; Vieta, Marcelo & Smith, Richard 2006: Online Gaming and the Interactional Self: Identity Interplay in Situated Practice, In J.P. Williams, S.Q. Hendricks & W. K. Winkler (eds.), *Gaming as Culture: Essays on Reality, Identity, and Experience in Fantasy Games*, (pp. 154-174). Jefferson, NC: McFarland Publishing.

Colebrook, C. (2002). *Gilles Deleuze*, London and New York, Routledge.

Consalvo, M. (2009). There Is No Magic Circle, *Games and Culture*. Retrieve from http://gac.sagepub.com/content/4/4/408

Copier, M. & Raessens, J. (Eds.). (2003). *Level up: Digital games research conference 2003*. Utrecht: Utrecht University.

Copier, M. (2005). Connecting Worlds. Fantasy Role-Playing Games, Ritual Acts and the Magic Circle, In Proceedings of DiGRA 2005 Conference: Changing Views - Worlds in Play.

Copier, Marinka. (2009). Challenging the magic circle: how online role-playing games are negotiated by everyday life, In Van Den Boomen, M., Lammes, S., Lehmann, A., Raessens, J., & Schafer, M. T., (Ed.), *Digital Material: Tracing New Media in Everyday Life and Technology* (pp.159-171). Amsterdam: Amsterdam University Press.

Crick, T. P. (2010). The Game Body: Towards a Phenomenology of Contemporary Video Gaming, *Games and Cultural*, 1-11. Retrieved from: http://gac.sagepub.com/content/early/2010/03/16/1555412010364980.

Davis, K. (2003). *Dubious Equalities and Embodied Differences: Cultural Studies on Cosmetic Surgery*. Lanhan: Rowman& Littlefield.

Deleuze, G. (1983). Plato and the Simulacrum. (R. Krauss Trans.). *October*, 27, 45-56.

Deleuze, G. (1989). *Cinema 2: The Time-Image*, (H. Tomlinson & R. Galeta, Trans.). London: Athlone Press.

Deleuze, G. (1994). *Difference and repetition*. New York: Columbia University Press.

Deleuze, G. (2004). *Desert Islands and Other* Texts (1953-1974). New York: Semiotext(e).

Delphy, Christine. (1975). For A Materialist Feminism, In Hennessy, R.& Ingraham, C. (Eds. 1997), *Materialist Feminism: A reader In Class, Difference, And Women's Lives*, New York& London, Routledge.

Delphy, C. (1984). *Close to Home: A Materialist Analysis of Women's Oppression*, (D. Leonard, Trans. & Ed.). London: Hutchinson.

Delphy, C. (1993, February). Rethinking sex and gender. In *Women's Studies International Forum* (Vol. 16, No. 1, pp. 1-9). Pergamon.

Dennis, A. R., Valacich, J. S., Speier, C., & Morris, M. G. (1998, January). Beyond media richness: An empirical test of media synchronicity theory. *System Sciences*, Proceedings of the Thirty-First Hawaii International Conference (Vol. 1, pp. 48-57).

Dennis, A. R., & Valacich, J. S. (1999, January). Rethinking media richness: Towards a theory of media synchronicity. *Systems Sciences*, 1999. HICSS-32. Proceedings of the 32nd Annual Hawaii International Conference (pp. 10-pp).

Eskelinen, M. (2001). The gaming situation. *Game studies*, 1(1), 68. Retrieved from http://www/gamestudies.org/0101/eskelinen/.

Farr, W., Price, S., & Jewitt, C. (2012). An introduction to embodiment and digital technology research: Interdisciplinary themes and perspectives. NCRM Working Paper. Retrieved from http://eprints.ncrm.ac.uk/2257/.

Fine, G. A. (1983). *Shared Fantasy: Role-Playing Games as Social Worlds*, Chicago: The University of Chicago Press.

Featherstone, M. & Burrows, R. (1995). Introduction. In M. Featherstone & R. Burrows (Eds.), *Cyberspace, Cyberbodies, Cyberpunk: Cultures of Technological Embodiment* (pp.1-19). London: SAGE Publications.

Frasca, G. (2003). Simulation versus narrative: Introduction to Ludology. In M.J.P. Wolf & B. Perron (Eds.), *The video game theory reader* (pp. 221-235). New York: Routledge.

Gatens, M. (1996). *Imaginary Bodies: Ethics, Power and Corporeality*. London & New York, Routledge.

Gray, C. H. (2001). *Cyborg Citizen: Politics in the Posthuman Age*. New York, Routledge.

Grosz, E. (2001). *Architecture from the Outside: Essays on Virtual and Real Space*, Cambridge: MIT Press.

Gunkel, D. J. (2010). The Real Problem: Avatars, Metaphysics and Online Social Interaction, *New Media Society*, 12, 127-141.

Hansen, M. B.N. (2006 a). *Bodies in code: interfaces with digital media*, New York: Routledge.

Hansen, M. B.N. (2006 b). Foreword. In B. Wegenstein, *Getting Under the Skin: The Body and Media Theory* (ix-xvi). Cambridge& Massachusetts: MIT Press.

Haraway, D. (1988). Situated knowledges: The science question in feminism and the privilege of partial perspective. Feminist studies, 575-599.

Haraway, D. (1991 a). A cyborg manifesto: science, technology, and socialist-feminism in the late twentieth century. *Simians, cyborgs and women: the reinvention of nature*, 149-82.

Haraway, D. (1991 2). “Gender” for a Marxist Dictionary: The Sexual Politics of a Word. *Simians, Cyborgs, and Women: The Reinvention of Nature*, New York, Routledge Press.

Harding, S. (Eds.). (1987). *Feminism and Methodology: Social Science Issues*. Bloomington: Indiana University Press.

Harvey, P. (2009). Between narrative and number: the case of ARUP's 3D digital city model. *Cultural Sociology*, 3(2), 257-276.

Hayles, N. K. (1999). *How We Became Posthuman: Virtual Bodies In Cybernetics, Literature, and Informatics*, Chicago& London: The University of Chicago Press.

Hayles, N. Kathrine. (2003). Flesh and Metal: Reconfiguring the Mindbody in Virtual Environments, *Configurations*, Volume: 10, Issue: 2, 297-320.

Hayles, N. Katherine. (2010). Cybernetics. In W. J. T. Mitchell and Mark B. N. Hansen (Ed.), *Critical Terms For Media Studies* (pp.145- 156). Chicago& London: The University of Chicago Press.

Hayles, N. K. (2012), *How We Think: Digital Media and Contemporary Technogenesis*, Chicago & London: The University of Chicago Press.

Heim, M. (1993). *The Metaphysics of Virtual Reality*, New York: Oxford University Press.

Huynh, K. P., Lim, S. W., & Skoric, M. M. (2013). Stepping out of the magic circle: Regulation of play/life boundary in MMO - mediated romantic relationship. *Journal of Computer - Mediated Communication*, 18(3), 251-264.

Irigaray, L. (1993). *An Ethics of Sexual Difference*. (C. Burke & G. C. Gill Trans.). London: The Athlone Press.

Iser, W. (1993). *The Fictive and the Imaginary: Charting Literary Anthropology*, Baltimore: The Johns Hopkins University Press.

Jenson, J., & Castell, S. (2008, October). From simulation to imitation: new controllers, new forms of play. In Proceedings of the 2nd European Conference on Games-Based Learning. Barcelona, Spain (pp. 16-17).

Jenson, J., & Castell, S. (2015). Online Games, Gender and Feminism in. The International Encyclopedia of Digital Communication and Society. Retrieved from: http://onlinelibrary.wiley.com/doi/10.1002/9781118767771.wbiedcs116/full.

Jones, A. (2008). Meaning, Identity, Embodiment: The Uses of Merleau-Ponty's Phenomenology in Art History. In Arnold, D. & Iversen, M. (Eds.), *Art and Thought* (pp. 71-90). Oxford: Blackwell Publishing.

Kingsepp, E. (2007). Fighting Hyperreality With Hyperreality: History and Death in World War II Digital Games. Games and Culture, 2(4), 366-375. Retrieved from http://gac.sagepub.com/cgi/content/abstract/2/4/366.

Kruks, S. (1992). Gender and Subjectivity: Simone de Beauvoir and Contemporary Feminism. *Signs*, Vol. 18, No.1, 89-110.

Lakoff, G. & Johnson, M. (1999). *Philosophy in the Flesh: The Embodiment Mind and Its Challenge to Western Thought*, New York: Basic Books.

Laotse. (1958). *The wisdom of Laotse*. (YT Lin, Trans.). London: Michael Joseph.

La Rocca, D. (2011). The False Pretender: Deleuze, Sherman, and the Status of Simulacra. The Journal of Aesthetics and Art Criticism, 69(3), 321-329.

Lehdonvirta, V. (2010). Virtual worlds don't exist: Questioning the dichotomous approach in MMO studies. *Game Studies*, 10(1). Retrieved from http://gamestudies.org/1001/articles/lehdonvirta.

Leonard, D. (1984). Preface. In C. Delphy, *Close to Home: A Materialist Analysis of Women's Oppression*, (D. Leonard, Trans. & Ed.). London: Hutchinson.

Mansfield, V. (1995). *Synchronicity, Science, and Soul-Making: Understanding Jungian Synchronicity through Physics, Buddhism, and Philosophy*, Peru: Open Court Publishing Company.

Merleau-Ponty, M. (2002). *Phenomenology of Perception*. (C. Smith, Trans.). London: Routledge.

Merolla, Daniela (2005). 'Migrant Websites,' WebArt, and Digital Imagination, In Ponzanesi, S., & Merolla, D. (Ed.), *Migrant cartographies: New cultural and literary spaces in post-colonial Europe* (pp.217-228). New York, Toronto& Oxford: Lexington Books.

McRobbie, A. (2009). *The Aftermath of Feminism: Gender, Culture and Social Change*. London: SAGE.

Moore, C. (2011). The magic circle and the mobility of play. *Convergence: The International Journal of Research into New Media Technologies*, 17(4), 373-387. Retrieved from http://con.sagepub.com/content/17/4/373.

Nancy, J. L. (1994). Corpus. In MacCannell, J. F., & Zakarin, L. (Eds.), *Thinking Bodies* (p.31). Stanford: Stanford University Press.

Nelson, E. S. (2003). Review essay. [Review of the book *Laozi, Dao De Jing: A Philosophical Translation*, translated by Roger Ames and David Hall, (2003). New York: Ballantine Books]. *Dao: A Journal of Comparative Philosophy*, II.3, 143-145. Retrieved from http://faculty.uml.edu/enelson/daodejingreview.htm.

Neys, J. L., Jansz, J., & Tan, E. S. (2014). Exploring persistence in gaming: The role of self-determination and social identity. *Computers in Human Behavior*, 37, 196-209.

Parr, A. (Ed.). (2010). *The Deleuze Dictionary (Revised Edition)*. Edinburgh: Edinburgh University Press.

Pasquinelli, M. (2009). Google's PageRank algorithm: A diagram of cognitive capitalism and the rentier of the common intellect. *Deep Search*, 3, 152-162.

Pisters, Patricia. (2006). The Spiritual Dimension of the Brain as Screen Zigzagging from Cosmos to Earth (and Back), In Pepperel, R. & Punt, M. (Eds.) *Screen Consciousness: Cinema, Mind and the World* (pp. 126-137). Amsterdam & New York: Rodopi.

Pisters, P. (2012). *The Neuro-Image: A Deleuzian Film-Philosophy of Digital Screen Culture*, Stanford: Stanford University Press.

Rabinowitz, P. (1995). [Review of the book *The Fictive and the Imaginary: Charting Literary Anthropology*, written by Wolfgang Iser, 1993]. *Philosophy and Literature* 19.1, 188-189.

Raessens, J. (2006). Reality Play: Documentary Computer Games Beyond Fact and Fiction, *Pupular Communication*, 4(3), 213-224.

Salen, K. & Zimmerman, E. (2004). *Rules of Play: Game Design Fundamentals*. Cambridge: MIT Press.

Shipka, J. (2007). [Review of the book *Getting Under the Skin: The Body and Media Theory* written by Bernadette Wegenstein, 2006]. JAC, 27, 862-865.

Sobchack, V. (1990). The Active Eye: A Phenomenology of Cinematic Vision, *Quarterly Review of Film and Video*, 12, 21-36.

Sobchack, V. (1992). *The Address of the Eye: A Phenomenology of Film Experience*, Princeton: Princeton University Press.

Sobchack, V. (2004). *Carnal Thoughts: Embodiment and Moving Image Culture*, Berkeley, Los Angeles & London: University of California Press.

Taylor, L. (2003). When Seams Fall Apart: Video Game Space and the Player. *Game Studies*, 3(2), 26. Retrieved from http://www.gamestudies.org/0302/taylor/.

Tomas, D. (1995). Feedback and cybernetics: reimaging the body in the age of the cyborg. *Cyberspace, cyberbodies, cyberpunk: Cultures of technological embodiment*, 21-43.

Turkle, S. (1997). *Life On The Screen: Identity In The Age Of The Internet*. London: Phoenix.

Turkle, S. (1999). Cyberspace and Identity: Looking Toward Cyberspace: Beyond Grounded Sociology. *Contemporary Sociology*, 28(6), 643-648.

Turkle, S. (2005). *The Second Self: Computers and the Human Spirit*, Twentieth Anniversary Edition, Cambridge & London: The MIT Press.

Turner, T. (2011). Bodiliness: The Body Beyond the Body: Social, Material and Spiritual Dimensions of Bodiliness. *A Companion to the Anthropology of the Body and Embodiment*, 102-118.

Van der Tuin, I., & Dolphijn, R. (2012). New materialism: Interviews & Cartographies. Open Humanities Press. Freely available online at http://hdl.handle.net/2027/spo.11515701.0001.001

Van Wolputte, S. (2004). Hang On to Your Self: Of Bodies, Embodiment, and Selves. *Annual Review of Anthropology*, 33, 251-269.

Waldby, C. (2000). The Visible Human Project: Data into Flesh, Flesh into Data. In Marchessault, J., & Sawchuk, K. (Ed.), *Wild science: Reading feminism, medicine and the media*(pp. 24-38). New York: Routledge.

Wegenstein, B. (2006). *Getting Under the Skin: The Body and Media Theory*. Cambridge& Massachusetts: MIT Press.

Wegenstein, Bernadette. (2010). Body. In Mitchell. W. J. T. & Hansen, M. B. N. (Ed.), *Critical Terms For Media Studies* (pp. 19-34). Chicago & London: The University of Chicago Press.

Whelehan, I. (1995). *Modern Feminist Thought: From The Second Wave to "Post-Feminism"*. Edinburgh : Edinburgh University Press.

Wiener, N. (1948). *Cybernetics, or Control and Communication in the Animal and the Machine*. New York: John Wiley.

Wiener, N. (1954). *The Human Use of Human Beings: Cybernetics and Society*. New York: Doubleday Anchor.

Williams, J. P., Hendricks, S. Q., & Winkler, W. K. (Eds.). (2006). Gaming as culture: Essays on reality, identity and experience in fantasy games. Jefferson: McFarland.

Wong, K. (2014). The Yin-Yang Assemblage and Deleuze's Transcendental Empiricism: A Note on How Daoism Became Posthuman. In *Proceedings of*

Conference: Deleuze's Cultural Encounters with the New Humanities. HongKong.

Young, I. M. (2005). *On Female Body Experience: 'Throwing Like A Girl' and Other Essays*, New York: Oxford University Press, 2005.

Summary

This is a dissertation which employs the avatar, the virtual character in online games, as a research object; it upholds the perspective of embodiment; it scrutinizes the concepts of the body, sex, and gender, in online gaming; it aims to explore the changes in the issue of identification in the information era, and unifies its finding through the prism of synchronicity.

While information technology fundamentally changes the human life, synchronicity, the school of thought emerging from the technical capacity of embracing multiple spaces at the same time, demonstrates what these changes are.

By focusing on the interaction between the player's body and the avatar, as well as the performance, switchover and the "choosability" of gender in online gaming, this research confirms the epistemological shift from materiality to embodiment. The body is an assemblage activated by the life dynamic, which is not necessarily flesh, but should certainly be capable of embodiment. For an individual player, gender can be neither or both feminine and masculine. Based on these observations, this dissertation argues that the individual level of identification has both been enlarged and empowered in this information era.

This dissertation also makes a contribution to feminist methodology. Through the construction of an interdisciplinary argument, it shows the potential of feminism as both a research field and a perspective.

The structure of this dissertation is as follows:

The introducing chapter generally outlines the structure of the dissertation, specifically clarifying the research approach, my research interests, aim, and the interdisciplinary methodology I develop in this research. Embracing the concepts of 'synchronicity' and 'the integrated world', five hypotheses and three core terms frame the argument of this research.

Chapter 1 investigates what differences the emergence of the avatar makes as well as what potential transformation lies in those differences, by comparing the avatar with traditional simulacra, namely the characters in a novel. It is worth noting that one of the fundamental characteristics of the avatar lies in the feedback loop technique, the basic core of synchronicity technology. In addition, the faculty of imagination also plays an important role in online gaming. The resultant force constituted by the imagination and the feedback loop mechanism make the avatar possible, and differ it from other simulacra.

Chapter 2 looks at theoretical transformation caused by the emergence of the avatar, which I would like to conclude as a 'Re…ing' pattern. This pattern,

echoing to the synchronicity perspective, can be viewed as co-existing between a reflection and an ongoing action. This chapter stresses the shift from materiality to embodiment in terms of epistemology. It highlights the idea of the embodied imagination which bridges the real and the virtual, the physical world and cyberspace, and then deeply participates in the process of identification in the integrated world.

Chapter 3 raises the theory of “three bodies” and the synchronicity perspective to describe the situation of the body in online game playing. Departing from the perspective of synchronicity, the body is no longer defined by the criterion of materiality/immateriality but of synchronized embodiment. By synchronizing multiple bodies in multiple spaces, the way in which the concept of the body is defined has shifted from a materiality-orientation to an embodiment-orientation.

Chapter 4 focuses on the concepts of sex and gender, the traditional categories for identification, as well as the dichotomy between them. This chapter startes with a review of the three main points of view on the concepts of sex and gender in contemporary feminist theory, to frame the approach I opt for. By shedding light on the unique possibilities in online gaming, namely the choosability of gender of the avatar, this chapter emphasizes gender performance and even gender switchover in online gaming.

The concluding chapter summarizes the findings of this research, including the changes in the concepts of the body, sex, and gender. Through the illustration of how the five hypotheses are sustained, this chapter emphasizes the value of the interdisciplinary methodology to feminist theory. In addition, the potential and possible directions for my future research is briefly depicted as well.

Samenvatting

Deze dissertatie betreft de avatar, het virtuele personage in online computerspellen, als object van onderzoek; ze verkiest het perspectief van belichaming; ze onderzoekt de concepten het lichaam, sekse en gender in online computerspellen; ze heeft als doel de veranderingen met betrekking tot identificatie in het informatietijdperk te exploreren, en verenigt haar bevindingen via het prisma van synchroniciteit.

Terwijl informatietechnologie het menselijk leven fundamenteel verandert, toont synchroniciteit, de benadering die voortkomt uit de technische mogelijkheid in meerdere ruimtes tegelijkertijd te bestaan, wat deze veranderingen zijn. Door het vizier te richten op de interactie tussen het lichaam van de speler en de avatar, alsmede op de *performance*, inwisseling en de 'kiesbaarheid' van gender in online computerspellen, bevestigt dit onderzoek de epistemologische verschuiving van de materialiteit van het lichaam naar belichaming. Het lichaam is een assemblage die geactiveerd wordt door de dynamiek van het leven, hetgeen niet noodzakelijk vleselijk/fysiek is, maar zeker tot belichaming in staat zou moeten zijn. Voor een individuele speler kan gender noch vrouwelijk noch mannelijk of juist beide zijn. Op basis van deze observaties betoogt deze dissertatie dat het individuele niveau van identificatie zowel verruimd is als meer handelingsvermogen heeft gekregen in dit informatietijdperk.

Deze dissertatie levert ook een bijdrage aan feministische methodologie. Door de constructie van een interdisciplinair betoog, toont ze de potentie van feminisme als zowel een onderzoeksveld als een perspectief.

De structuur van deze dissertatie is als volgt:

De inleiding geeft een algemene schets van de structuur van de dissertatie en gaat specifiek in op de onderzoeksbenadering, mijn onderzoeksinteresse, doel en de interdisciplinaire methodologie die ik in dit onderzoek heb ontwikkeld. Aan de hand van de concepten 'synchroniciteit' en 'de geïntegreerde wereld' vormen vijf hypothesen en drie kernbegrippen het kader van het betoog van dit onderzoek.

Hoofdstuk 1 onderzoekt welke veranderingen de opkomst van de avatar veroorzaakt hebben alsmede welke mogelijke transformatie die veranderingen met zich meebrengt, door de avatar te vergelijken met traditionele simulacra, te weten de personages in een roman. Relevant is dat een van de fundamentele eigenschappen van de avatar de *feedbackloop*-techniek is, de kern van de synchroniciteittechnologie. Daarnaast speelt het verbeeldingsvermogen ook een belangrijke rol in computerspellen. De kracht die voortkomt uit de verbeelding

en de feedbackloop maken de avatar mogelijk en onderscheidt deze van andere simulacra.

Hoofdstuk 2 kijkt naar theoretische transformatie veroorzaakt door de opkomst van de avatar, die ik zou willen duiden als een '*Re…ing*-patroon'. Dit patroon echoot het synchroniciteitsperspectief en kan worden gezien als een samengaan van reflectie en voortgaande activiteit. Dit hoofdstuk benadrukt de verschuiving van materialiteit naar belichaming in termen van epistemologie. Het benadrukt het idee van de belichaamde verbeelding die het reële een het virtuele verbindt, de fysieke wereld en cyberspace, en dan intenstief deelneemt aan het proces van identificatie in de geïntegreerde wereld.

Hoofdstuk 3 adresseert de theorie van "drie lichamen" en het synchroniciteitsperspectief om de toestand van het lichaam in het online spelen te beschrijven. Met het perspectief van synchroniciteit als vertrekpunt wordt het lichaam niet langer gedefinieerd door het criterium van materialiteit/immaterialiteit maar door gesynchroniseerde belichaming. Door meerdere lichamen binnen meerdere ruimtes te synchroniseren, is de manier waarop het begrip lichaam wordt gedefinieerd verschoven van een georiënteerd op materie naar een georiënteerd op belichaming.

Hoofdstuk 4 richt zich op de concepten sekse en gender, de traditionele categorieën voor identificatie, alsmede op de dichotomie ertussen. Dit hoofdstuk begint met een overzicht van de drie belangrijkste perspectieven op de concepten sekse en gender in de hedendaagse feministische theorie, het kader van mijn benadering. Door de unieke mogelijkheden in online spellen te belichten, te weten de verkiesbaarheid van gender van de avatar, benadrukt dit hoofdstuk genderopvoering en zelfs genderwisseling in online computerspellen.

Het afsluitende hoofdstuk vat de bevindingen van dit onderzoek samen, inclusief de veranderingen in de concepten lichaam, sekse en gender. Door te illustreren hoe de vijf hypotheses worden bevestigd, benadrukt dit hoofdstuk de waarde van de interdisciplinaire methodologie voor feministische theorievorming. Bovendien wordt het potentieel en de mogelijke richting van mijn toekomstig onderzoek kort besproken.

Biography

Wei Gui holds a bachelor's degree in Chinese Language & Literature Studies from Xiamen University, China. At Xiamen university, she studied Literature, Aesthetics and Feminist Theory, and received a master's degree in Chinese Feminist Literature Studies with a thesis on the representative pattern in contemporary Chinese feminist writing : *From A Daughter to A Woman: An Inquiry into the Pattern of "Adult Ceremony" in Chinese Contemporary Female Writing*.

After completing her studies, Wei Gui worked as a reporter and editor for *Private Economy News*, a subsidiary of *Yangcheng Evening News*.

In 2011, she received a grant from the CSC (China Scholarship Council) to conduct a four-year PhD research at the Institute for History and Culture (OGC), later the Institute for Cultural Inquiry (ICON), at Utrecht University in the Netherlands. Wei Gui's research interests lie in the fields of feminist theory, new media studies, game and cultural studies, and literature studies.