Qiao Xiaomeng
Chaoyang, Beijing
[redacted]

3,800 words.

INDI PROGRAM PROPOSAL

by Qiao Xiaomeng

I. Title

I propose to title my thesis "A Practice-based Study on Buddhist Psychology as a Framework for Therapeutic Game Design".

# # #

II. Introduction

This proposal has been developed through my deep interest in exploring the intersection of Buddhist psychology and video games from an academic perspective, with a multidisciplinary approach conducted that involves game design, religion, and experimental psychology. My main interest is to use the concepts of Buddhist psychology into game design for therapeutic goals. This proposed project will focus on using games as the simulation of the relational self-construct in the context of Buddhism.

While the therapeutic effects of video games have been widely acknowledged by the community of psychotherapists (Ceranoglu, 2010[1]; Buckley & Anderson, 2006[2]) and game scholars (Vella & Johnson, 2012[3]; Johnson, Scholes, & Carras, 2013[4]) and reinforced by the positive results of serious games for mental health (Plechawska-Wojcik & Rybka, 2015[5]; Shepherd et al., 2015[6]; Cabot & Wilkinson, 2016[7]; Małgorzata & Grzesiak, 2015[8]; Miller, 2015[9]; Argenton, Triberti, Serino, Muzio, & Riva, 2014[10]; Dias, Barbosa, & Vianna, 2018[11]; Defazio, 2012[12]; Anguera, Gunning, & Areán, 2017[13]), very little is currently known about this phenomenon - what defines it? why does it happen? and how does it work? These questions are of great

significance for the production of good-qualified serious games on mental health.

Most of the related practices right now are gamified therapies instead of therapeutic games, which can lead to problems such as limited efficacy (Schoneveld et al., 2016)[14]. It is still difficult to integrate video games and psychotherapies even with a degree of commonality established (Crossley, 2015[15]; Guzman, 2015[16]).

I propose that Buddhist psychology can serve as a bridge between psychotherapy and video games toward a systematic approach to therapeutic game design because a) mechanics of psychological changes in Buddhism (Shelby, 2014)[17] and video games (Mittlböck, 2012)[18] can both be explained by the concept of transitional space (Winnicott, 1991)[19] that is utilized to mediate internal and external reality and thus lead to the self-construct and b) the therapeutic process can be gasified more easily with a background of Buddhism compared to psychotherapies.

The aim of this project is to build a design-oriented theoretical framework for therapeutic games on the basis of relational psychoanalysis and Buddhist psychology. The investigation will take the form of an adapted grounded study with a method of practice-based design research. The expected outcomes are:

- a series of experimental game projects that will explore the connections between game mechanics and its relational and psychological effects with Buddhist relations simulated
- an ongoing blog that will document related files such as devlogs and playtesting feedbacks and act as a source of data gathering from internet
- a thesis of scholarly writing that will locate itself with the field of serious games through the application of Buddhist psychology into therapeutic game design with practice-based method conducted

The Technoculture, Art and Games (TAG) Research Centre has been instrumental in the interdisciplinary collaboration in digital games with a particular focus on design research. There are different projects demonstrate the continuing leadership of the department in serious games and culture. The proposed study is suitable for INDI program because it is a self-guided project from an indie game designer with basic clinical training in Buddhist psychology. It might lie out of the regular topics on game design at first sight but still worth rethinking to be out of the box. Serious games won't be serious unless they were treated seriously. And the research outline below would explore the history of the relationship between Buddhist psychology and video game and interrogate how Buddhist psychology can be used to improve the therapeutic game design to benefit the public.

# # #

III. Background

Toward a Design-oriented Theoretical Framework for Therapeutic Games

Understanding the therapeutic effects of video games in the way of a theoretical framework can work well as guidelines for game design and analysis, which has already been affirmed in related areas such as learning games (Amory, 2007[20]; Arnab et al., 2015[21]). Yet this issue has not been commonly treated in the context of psychotherapy both in theory and practice.

Only a few researchers have made a contribution to this discussion on the theory formation of therapeutic games. The method of comparative study has been conducted to establish a degree of commonality. For example, Crossley (2015) argued that the elements of successful game design and depression treatment share many parallels such as motivation, skill training, inherently learning experiences, clear goals and feedbacks etc. Similarly, Carrasco (2016) compared different treatment objectives, activities, and possible game genres with limited connections to conclude that the adventure game is suitable for the context of depression. While these researchers suggest rationales for how therapeutic game may work, their insights are too general to guide the actual process of design.

Previous practices of game-based interventions have not dealt with the process of design in detail. Most of the cases are kind of gamified products (Coyle, Matthews, Sharry, Nisbet, & Doherty, 2005[22]; Carrasco, 2016[23]; Merry et al., 2011[24]; Wehbe et al., 2016[25]; Brezinka, 2008[26]; Rodríguez et al., 2012[27]) on the basis of evidence-based structured therapies such as Cognitive Behavioral Therapy (CBT) and Solution Focused Therapy (SFT). The fact leads to similar patterns in design as well as limited efficacy compared to entertainment games (Schoneveld et al., 2016). A variety of design tools such as ScriptEase (Desai, Szafron, Sayegh, Turecki, & Greiner, 2001) [28]and PlayWrite (Coyle, Doherty, & Sharry, 2010) [29]have been developed to simplify the development process with accustomized choices due to the similarity of this kind of games.

The struggles can be understood if they were examined by the findings of studies on dimensions of video games effects (Gentile, 2005)[30]. Current psychotherapies are faced with huge challenges to fit into game design especially at the level of gameplay even with shared qualities (Mader, Natkin, & Levieux, 2012)[31]. The result can also be supported by similar research (King, Delfabbro, & Griffiths, 2010)[32]. A new

perspective will be needed in the further investigation to make a progress in seek of a design-oriented theory of therapeutic games.

Transitional Space and Its Therapeutic Effects in Buddhism and Video Games

Both Buddhism (Aich, 2013)[33] and playing (Griffiths, 2003)[34] have long been closely investigated from different angles since the early stages of the formal psychotherapy. The interests on the phenomenon of playing last and turn into the field of video games after this new-born products emerged in the 1980s (Wilkinson, Ang, & Goh, 2008)[35]. One of the most fruitful aspects is psychological development within analytic psychotherapy (Rubin, 1999[36]; Safran, 2003[37]; Munro, 2017[38]). The correspondences in psychotherapeutic rationale between Buddhism and games start here at a very general level with the fact that both can be explained by similar concepts such as transitional space (Winnicott, 1952).

The concept of transitional space (intermediate area, third area) was put forward and developed by Winnicott (1952) first as the potential space between the individual and the environment to integrate the inner and outer world in the early stages of the infant's development. However, it is deeply rooted in the original thought of Winnicott that to view the process of playing as well as religious beliefs as potential transitional spaces (Winnicott, 1991; Gay, 1983[39]). This argument has been reproposed recently by Mittlbock (2012) to explain that role-playing games can facilitate personality development by providing certain challenges being as transitional space. The idea is also welcomed by the psychoanalysts such as Dini (2012)[40] in the practice of using video games as transitional spaces to understand their patients. In the same vein, notions from a Winnicottian perspective such as transitional objects, (un)integration, false and true self are not only firmly connected with Buddhism but also work well to provide reasonable psychological explanations for the therapeutic effects (Shelby, 2014; Hartman & Zimberoff, 2003[41]) and even some spiritual experience of Buddhism (Simmonds, 2018)[42].

The interactive process of playing will facilitate the self-construct of the player just as the original transitional space does for the infant. Turkle (1986)[43] noted this phenomenon as early as in the 1980s with the claim that video games can be relational artifacts to exercise the intellect and even the emotions. Mittlbock (2015)[44] explained further that the player will understand the game world better with a symbol system that has been gradually formed through interaction and thus achieve the self-construction. One study that uses the theory from Lacan to illustrate how the virtual

ego seeks an ideal self reflected in separate virtual spaces (Nusselder, 2007)[45] can also add knowledge from a different perspective.

It is noteworthy that avatars appear to play an important role in the therapeutic process of video games if it does exist. Not only different psychoanalytic theories have been used to understand the psychological effects of the avatar such as Freud (transference), Klein (object-relations theory), Winnicott (transitional object) and Lacan (the mirror stage)[46], but also empirical evidence (McDonald & Kim, 2001[47]; Lewis, Weber, & Bowman, 2008[48]; Klimmt, Hefner, Vorderer, Roth, & Blake, 2010[49] etc.) suggests the connection between the avatar and the self-concept.

The similar patterns exist in the context of Buddhism, where the interactive process is mostly changed into the associations within Sangha, the Buddhist community. The standard relations in Buddhism can be explained with the study led by Shi Chuanyuan (2010)[50] that compared object relations theory (Kernberg, 1995)[51] with Bodhisattva Vow, a path to liberate all sentient beings. By following Bodhisattva Vow, each bodhisattva not only helps its inner self but also offers possibilities to the one it helps of becoming Buddha at the same time.

From a Winnicottian perspective, Sangha also includes the presence of the clinician who provides ego support and guidance with titrating the meditative experience within the facilitating holding environment of a psychotherapeutic setting (Shelby, 2014). An analysis on Sangha (Volkan, 2013)[52], the Buddhist community, with the theory of Freud suggests that the relations can make the ego more flexible. There are also limited empirical evidence that supports the observation. For example, one comparative study (Sahdra & Shaver, 2013)[53] on attachment theory and Buddhist psychology provides some empirical evidence that nonattachment in Buddhism can lead to a decrease of closed-minded.

The Application of Buddhist Psychology into Therapeutic Game Design

While never being used together in the area of therapy, religious ritual and games have been traditionally assumed to be connected (Gillin & Huizinga, 1951)[54]. This claim is especially true for Buddhism because it highlights a systematic methodology toward enlightenment (Rinchen, 1997)[55]. The long existence of Buddhism-themed board games (Mark & Kent, 1977[56]; Brown, 1990[57]; Foulks McGuire, 2014[58]) in religious literature also indicates that it is possible to convert Buddhism into a gamified form.

Unlike most psychotherapies, Buddhism is especially suitable to be reconstructed

into games at the level of mechanics. The compatibility prevails in the nature that both religion and games are a predetermined set of rules that participants voluntarily join (Wagner, 2014)[59]. One study by Schlieter (2012)[60] explains how a Tibetan Buddhist game *Ascending the [Spiritual] Levels* should be better understood by the logic of both simulation and narration at the same time. It differs from the situation that game mechanics and therapies are separated in most of the currently related practices.

Till now, however, the application of Buddhist elements in the game design is limited to the concept of karma in the aspect of game mechanics. This fact might be influenced by the purpose of the design. With gradual improvement in design - see more recent cases as *Buddha Wheel (2006)* and *Karma Chakra (2006)*, Buddhist games still have been mostly supposed to be designed with a pedagogical goal with the simulation of karma. This trend to connect karma with moral choices continues in modern video games (Schulzke, 2009)[61] even within non-Buddhist context.

It is suggested that game design can be investigated from a standpoint of relations to obtain new insights about video games and well-being through previous studies such as a description of avatar transformation based on an activity theoretic analysis (Barr, Biddle, & Brown, 2006)[62] and different models of object interaction (Pinchbeck, 2009[63]; Kessing, Tutenel, & Bidarra, 2009[64]). Particularly, McDonald (2012)[65] used a method of close reading to analyze *Ico (Team Ico, 2001)* with object-relations psychoanalysis to show how the game follows a developmental change from a paranoid to a depressive style. It is interesting to ask what if these findings were connected with Buddhist relations. The argument has somehow already been examined within Buddhism-related practices in experiment games. For example, Plessis (2018)[66] argues that "becoming-other" relations in *Journey (thatgamecompany, 2012)*, a game believe to be hugely impacted by Buddhism (Jin, 2015)[67], promotes positive self-other relations for game design. This relationship has been strengthened in *Sky (thatgamecompany, TBD)* by encouraging players to share with others for self-growth. However, there is still a lack of practical research into this topic as Plessis (2018) stated that the "utilitarian subject-object" relations overwhelm in most of the popular video games.

# # #

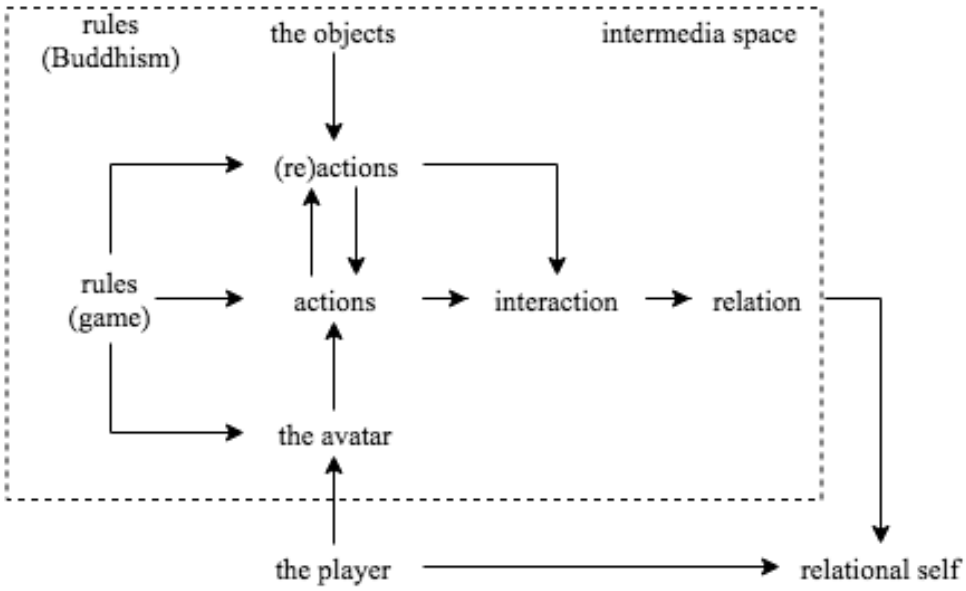
IV. Research Questions

> Given a newish empirical field, such as computer games, the obvious research question seems to be "How?" … here is another question that should be asked

first, and never is. That question, of course, is "Why?"

Espen Aarseth[68]

The overall problem that this proposed study intends to deal with is how the therapeutic nature of video games can be explained in a way that will aid the process of game design. Specifically, a connection will be built to based on the conceptual framework based on preliminary work to link the following factors, i.e. game mechanics (action/reaction), relations (interaction), psychodynamics and psychological effects.



The sub-questions are as follows:

- What are theories related to the relational self-construct process in psychotherapy, Buddhist psychology (Buddhism), and game design?
- How can these theories be associated to form a conceptual framework from a perspective of game design?
- How can the conceptual framework be adapted to the actual design process to serve as a design method?
- How will this design method be further developed based on the interactive process?

# # #

V. Method

This study will use qualitative research based on practice-based design method (Candy, 2006)[69] to form a design-oriented theoretical framework for therapeutic games from a relational perspective of Buddhist psychology. The approach is adopted mainly because this research both delves in-depth into complex processes and focus on little-known phenomena that can only be fully understood through actual design practice.

Data will be analyzed based on the guidance of grounded theory concepts and epistemology (Birks & Mills, 2010)[70] because a) it fits the purpose of theory formation with an emergent method and b) it works well within the perspective of multidisciplinary studies and c) it suits for areas in which little theory exists and d) it is good for studying processes. However, some adaptions are needed to be made to avoid potential problems. First, approaches to data taking and theoretical codes will be changed because this study is not based on an exact social process. Second, the study will begin directly with selective coding because the assumption is already defined.

Data will be collected by the methods of literature review, auto-ethomethodology, focus group, interaction analysis, unstructured interviews, and post-textual analysis. Data will be coded mainly for design-oriented variables around core categories i.e game mechanics (actions and reactions), relations/interactions, psychodynamics, psychological effects while other codings might also be possible.

- Preparation Phase (3 Months): Literature will be searched, selected and coded based on the review protocol in the preparation phase to be incorporated into the inductive process. While academic databases will be the main sources for this study, Buddhism-related content will be referred to Tripitaka with a focus on Avataṃsaka Sūtra.
- Design and Development Phase (12 Months): The method of auto-ethomethodology that is inspired by Skains (2016)[71] will be conducted during the design session. Research log, draft materials, and revision notes will be documented as a self-directed form of ethnomethodology. Results will be coded towards the relationship between game mechanics and relations/ interactions.
- Design and Development Phase (the same as above): The focus group (5 - 10) will consist of experts from related areas to provide information related to the relevance of the proposed theoretical framework, its value, and impact on

therapeutic game design, and how it might be strengthened.

- Evaluation Phase (6 Months): The method of interaction analysis is based on Jordan and Henderson (1995)[72]. It is an interdisciplinary method that has already been used in serious game studies such as Jean (2018)[73]. Participants will be asked to play the proposed game and keep reporting their feelings about themselves in a certain gamified situation at the same time. Data will be collected during the process of playing through game logs and video recordings to recognize reactive patterns of the participants in different situations. Results will be coded towards the relationship between relations/interactions and psychodynamics.
- Evaluation Phase (the same as above): Unstructured interviews will be used here to complement the understanding of interactions and provide additional inductive cues.
- Post-Production Phase (3 Months): Post-textual analysis is used here to provide additional insight into the practitioner's process and work, as well as better understanding the theory formation. The procedures here will follow the traditional game analysis (Consalvo & Dutton, 2006)[74].

Participants will be theoretically sampled from different sources, which are Renji Hospital in Shanghai, indienova, a Chinese indie portal, and some Buddhist communities. Criteria for selecting the subjects are as follows: slight depression and anxiety, difficulties in relationships, the balance of player and non-player participants, the balance of Buddhist and non-Buddhist participants. To rule out the possibility that some data are invalidated, it is expected that the sample with a diverse background can reach 50. The diverse background can help to eliminate the bias from the community of players or Buddhists so that each group needs to be higher than 15.

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VI. Research Limitations

There will be two principal limitations of this research. The first is that with a basis on Buddhist psychology, the findings will probably face the same dilemma that concerns with Buddhism about how to be translated into general situations. The proposed study, however, will not puzzle the audience with any religious concepts or theories but only use Buddhist psychology as a means to reach the goals.

The second limitation of this study is that the result will be more notional instead

of empirical with the qualitative method on the theoretical basis of psychoanalysis. Still, it does not mean that the result won't aid the process of design in practice.

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VII. The Proposed Members of the Supervisory Committe

Rilla Khaled (Principal Supervisor) is well placed for a supervisory role on this project, given her rich experience in game design, development and research. With the background in serious games, Rilla is more qualified than anyone else to supervise a program such as mine. Her focus on culturally-relevant games is also particularly in line with my goals in Buddhism.

With his interests in clinical psychology and cultural psychology, Andrew G. Ryder is well situated for the position of supervisory committees. His study on the cultural shaping of emotions and emotional disorders with an emphasis on East Asian societies can provide a perfect fit for this research.

J.F. Marc des Jardins has extensive experience in various Buddhist traditions as well as Chinese culture. As a researcher deep into the religious practices and lineages, Marc is quite fitted to offer the religional background and methodology advises I need for this program.

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VIII. Proposed Courses

- PSYC 724 (3 Credits) Special Topics in Clinical and Health Psychology
- PSYC 601 (3 Credits) Statistical Analysis and Experimental Design
- PSYC 644 (No Credits) Clinical and Health Area Seminar
- RELI 616 (3 Credits) History of Buddhist Thought and Institution
- RELI 617 (3 Credits) Modern Buddhist Thought and Institution
- DART 601 (3 Credits) Research Methods in Design

- DART 611 (3 Credits) Interdisciplinary Practices in Design

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IX. Notes

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