## Challenges for Game Addiction as a Mental Health Diagnosis

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#### ABSTRACT

In this paper, we outline the proposed PhD project: "Challenges for Game Addiction as a Mental Health Diagnosis". The project aims to bridge gaps between the perspectives, theories and data of current research trajectories that engage with the concept of game addiction; from psychology, psychiatry, cognitive neuroscience to media and game studies. The project has several proposed outcomes. Based on a review of the literature, the adequacy of 'game addiction' as a concept is questioned. The concept is further discussed in a historical perspective of game related pathologies and media/moral panics. The validity of the prevalent instruments used to assess the prevalence of computer game addiction is examined in a cross-disciplinary context. The argument of the project is that research on computer game addiction is limited by mono-disciplinary approaches that fail to capture significant nuances at the cost of validity of results and instruments. The lack of communication between researchers has resulted in qualitative research that deny the existence of computer game addiction and quantitative research that assert the existence and prevalence of the phenomenon. Qualitative research cannot claim to capture as wide a sample as quantitative research and quantitative research cannot claim to capture the deep understanding and nuances of qualitative research. When the two methods produce conflicting results it stands to reason that a dispassionate review and analysis is necessary.

### **Categories and Subject Descriptors**

J.4. [Psychology]

#### **General Terms**

Measurement, Human Factors.

#### Keywords

Psychology, game addiction, excessive gaming, video game questionnaires.

#### 1. INTRODUCTION

For years, computer game addiction has been a hot topic in the media and a cause of concern to parents and teachers, especially after the rise of the Internet and with the so-called "Massively Multiplayer Online Games" (MMOGs such as Everquest and especially World of Warcraft) in the early 2000s. Youth and children spend long hours in these new online playgrounds, often to the worry of concerned parents and kin. But how warranted is this concern, and what is the extent of the problem?

In the academic world, computer game addiction is researched by two separate fields, psychology and media/game studies. Collaboration is necessary to make any progress in this area, but there is little or no communication between the two groups. Typically, games researchers dismiss game addiction out of hand as a moral panic (while ignoring accounts from players who selfreport serious problems), and psychologists often lack media-, cultural, and game-specific insights that would help them address the phenomenon from a culturally and socially grounded position, thus avoiding basic empirical mistakes of observation and diagnosis. The current project enlists both scientific traditions in a novel and multidisciplinary effort to understand, delimit and explain "game addiction" and excessive gaming as a manifestation of culture as well as psychology, rather than either/or. One of the problems in the field is that authors do not establish clearly what is meant by 'addiction', thus leaving too much room for interpretation. Furthermore, it is difficult to establish how much investment of time and resources is too much to invest in games. This is especially problematic because of the different ways games are being played to day, both in terms of involvement, from casual to intense play; and in relation to others, either social or solitary play. Cross-sectional studies, which define excessive gaming as play that exceeds 4 hours a day [24] is just one example of a perspective, which is neither nuanced nor contextualized. This definition of excess clearly does not consider gaming to be a valid leisure activity when compared to other forms of media consumption. In contrast the average Dane watched TV for 3 hours and 18 minutes a day in 2011 [7].

While excessive gaming may entail substantial personal problems for some gamers, the current instruments [e.g. 17] are simply not accurate enough to measure it. Criteria from gambling measurement scales have more or less been directly applied to computer gaming despite the latter's different context, lack of similar negative effects, and whether or not measured behavior and its underlying construct are transient or persistent over time. Recent studies using these instruments have identified anywhere between 9.9% [9] and 0.6% [18] of respondents as being addicted to computer games. However, the instruments make unfounded assumptions about negative consequences. Items such as: "Did you play longer than intended?" or "Did you spend much free time on games?" [17] are taken as indication of excessive game use. This project will critically examine these instruments and question the underlying assumptions on which they build. It will argue that their validity needs testing beyond face value, as they, in their current form, might not be able to distinguish commitment to a serious leisure activity from addiction. In other words, "addiction" is currently measured directly as positive reactions to the game experience (pride in game achievements, dedication to the games) and via contextual aspects (quality of life, family reactions and relations). But neither positive experiences nor a dysfunctional personal background are valid indicators of a pathological addiction. As the culture of professional computer gaming and e-sports becomes more widespread, it is increasingly important to be able to tell the difference between positive and negative high engagement with games, and to pinpoint those indicators that really do flag a problematic condition.

#### 2. STATEMENT OF PURPOSE

The proposed project is inspired by earlier exploratory work, which critically examined the concept of 'computer game addiction' [20] and the validity of currently used instruments [19]. On this basis the dominant theoretical assumptions and methodologies of the field is questioned. Drawing on the field of psychology and that of game studies the similarities and differences between gambling and gaming will be highlighted in order to produce the first nuanced and cross disciplinary account of what is fact and what is fiction in the scientific and public debates. The main research goal is to carve out a middle ground between the two extreme positions that excessive use of games is either caused by addictive properties of games or by an inherent weakness or fault in the personality of the player. Therefore the two sub-goals of this research project are:

A) To produce a valid diagnostic instrument for measuring and identifying problematic excessive gaming based on weaknesses in currently applied instruments [e.g., 17, 10]. The currently employed instruments are based on surveys and factor analysis; however, while technically sound they are lacking in knowledge and understanding of games, gamer culture and the social context in which they exist. This lack is reflected in the wording of the questionnaires and thus the results are skewed. Since this is a conceptual problem and not a technical statistical one, it does not get picked up in the data processing. In other words the problem is one of validity, not reliability. Gaming does not share the severe financial and personal consequences of substance abuse and pathological gambling from which the instruments are borrowed. therefore it is unclear what exactly the instruments measure. It might be that the underlying construct is not addiction but a feature of the individual's personality, either transient or stable, such as impulsivity or an affective disorder such as depression. This effort is of paramount importance, as it will likely start a scientific investigation and debate about whether excessive gaming is a symptom or condition, a cause or an effect.

B) To conduct a critical investigation into the facts and fictions of computer game addiction and the social and health-related consequences for youth and children who spend long hours playing. This effort would be the first to combine methods from cultural studies, sociology, game research and psychology and would not only problematize the concept of computer game addiction but also go further and define excessive play, in a way useful to both theoretical and therapeutic work. So far the similarities in etiology and expression have not been thoroughly and satisfactorily examined. There is a clear lack of updated, scientific knowledge to guide concerned stakeholders dealing with problems related to excessive play. This knowledge would be of great value to different stakeholders (e.g., teachers, parents, politicians/policy makers, or health counselors/clinics). With almost no research on this topic in Denmark and very little abroad myths and anecdotes have been allowed to dominate the debate in the press and even within the scientific community.

# **3. CONTRIBUTION TO THE CURRENT STATE OF THE ART**

The current literature and research differ widely in how they view computer game addiction. Computer game addiction is often likened to one of the following, recognized, pathologies:

A) Substance abuse, dependence or addiction (e.g., alcohol or narcotics), B) Behavioral addiction, or C) Pathological gambling.

Because of the highly stigmatizing effects of these diagnoses, and the widely different consequences they entail, it is of paramount importance that these perspectives are critically examined. This effort is not made less important by the American Psychiatric Association's (APA) decision to include 'internet addiction' as a recognized disorder, this step by the APA will have ramifications for how online gaming is seen as cultural practice and for games as cultural artifacts. In countries such as America it is difficult to predict how this step will impact legislation the possibility for people to sue for damages. Hence, the current effort will become even more relevant than it already is. The research goal of this PhD project to define and distinguish excessive gaming from gambling will be ground breaking as it seeks to understand excessive gaming in depth an not just as an analogy to drug addiction and gambling. As outlined above the investigation will include.

1) A critical discussion and synthesis of the theoretical aspects of the literature that deals with game addiction, from the early work on "computer addiction" [22] and "internet addiction" [25] to contemporary work [e.g., 26, 16]. The different approaches range from cultural/media studies [e.g., 5, 11], cognitive and social psychology [13, 22,] and neurological studies within cognitive neuroscience [e.g., 15]. Other neurological perspectives on maladaptive behavior will also be considered e.g. the neurological basis for decision-making [23] and how aspects of research on obsessive-compulsive disorder might factor in [6]. There is a clear disconnect between research that raises questions about the concept of game addiction [2] and research on the effects and progression of the addiction [10]. This disconnect highlights the need for a more nuanced perspective [20].

2) A critical examination of the applied instruments which are used to measure the prevalence rate of games addiction [e.g., 9, 17, 18], in order to explain why game addiction does not necessarily have a negative effect on the overall life of the 'addicts' [13]. C) Building on previous efforts such as The Game Addiction Scale [17], and taking methodological and theoretical problems into consideration, a new instrument will be developed. The instrument is tentatively called The Excessive Gaming Scale. This effort will be the first of its kind to draw on a crossdisciplinary framework of understanding games, gamer culture and excessive gaming. The development of the scale will draw on insights from all of the subprojects in achieving this goal. The scale is intended not as a probing of underlying statistical constructs and will not rely on factor analysis or similar methods, but rather to highlight the problematic assumptions of previous efforts. These assumptions arise when gaming is compared to gambling without consideration for the significant differences that this project will explore. The new scale will however be useful both as an improved platform for further research and as a platform for gaining knowledge that will guide health workers and the general public.

An effort to synthesize the results from the abovementioned steps, which will define excessive gaming. The definition will combine the different results and, building on the game addiction literature, a theory of excessive gaming will be proposed.

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