

# Methodological Inertia and Neoliberal Bias in the Scientific Discourse on Internet Gaming Disorder

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**Abstract.** *The World Health Association has recently made Gaming Disorder a new official behavioral addiction diagnosis, against critique of growing pathologization of everyday behaviors and discontent in gamer communities. The controversial consensus on the psychiatrists' side raises a question about how the new diagnosis is influenced by scientists' normative attitudes and habitual institutional methods. The aim of this article is to present the scientific discourse behind the new disorder and interpret its meaning in a broader sociopolitical context, drawing on critical psychiatry, theories of neoliberal subjectivity, and alternative notions of addiction. For this purpose, I conducted a study of 247 article abstracts on the Internet Gaming Disorder proposed in the DSM-5, employing critical thematic discourse analysis (Parker 2011) and forming code trees from the bottom up. I found most abstracts to support the validity of IGD and express confirmatory scientific attitudes. Based on the study, I claim that the main issues of the discourse are (1) strong reliance on confirmatory brain and quantitative research without theoretical grounding, for example, lack of differentiation between cause/effect and alteration/disorder binaries, (2) prescription of neoliberal norms of subjectivity, and (3) lack of attention to the social context of the disorder. This shows that scientists' attitudes and habits are highly important for legitimizing the disorder, despite its model's crucial theoretical weaknesses, and that more socially-aware interdisciplinary research is needed to understand the complexity of problematic gaming and come up with better ways of dealing with it than pathologization.*

**Keywords:** *internet gaming disorder (IGD), discourse analysis, neoliberalism, subjectivity, social bias, critical psychiatry, addiction.*

## Introduction

Any notion of health and illness depends on social consensus and bears political meaning. In the context of global neoliberal economy, health has increasingly become seen as an individual's capacity to be productive and compliant in the face of socioeconomic destabilization, an ability to function effectively without institutional attachment and support. The concept

of addiction and various diagnoses based on it have been especially problematic in their scientific development, social meanings, and political effects, as it pathologizes exactly what capitalism systemically encourages – commodity fetish and chasing instant gratification.

In July 2018, the World Health Association included a new addictive disorder in its 11<sup>th</sup> edition of *International Classification of Diseases* (ICD-11). This new disorder, called Gaming Disorder (GD), affirms the long-debated addictive potential of video gaming and makes problematic video gaming the second official behavioral (non-substance) addiction after gambling. The decision by the WHO to make the diagnosis official has been largely based on research on an analogical Internet Gaming Disorder (IGD), proposed by the American Psychiatric Association (APA) as a diagnosis “under consideration” in their 5<sup>th</sup> edition of the widely recognized *Diagnostic and Statistical Manual of Mental Illness* (DSM-5). Both the IGD framework and the validation by the WHO have been subject to doubts from critical scholars as well as gamers’ communities, raising questions about the concept’s theoretical groundedness and practical implications. One popular critique is that the notion of IGD falls within the problematic tendency of contemporary psychiatry to pathologize everyday activities and psychologize complex social phenomena through biological reductionism.

In this article I ask how the new diagnosis is influenced by scientists’ normative attitudes and habitual institutional methods. To answer this question, I aim to provide a critical overview of methods and tendencies of contemporary psychiatry, its structural overlaps with neoliberal capitalism, and then use the overview as a context for analysis of the scientific discourse on IGD in terms of methodical and sociopolitical bias. I start off with theories of critical psychiatry, connecting the issues of the scientific field with the socioeconomic issues of neoliberal capitalism. In the second part, I provide a more thorough description of IGD and present the method and findings of my research. I finish with an assertion that the discourse on IGD follows a neoliberal logic of subjectivity, substituting basic theory with scientists’ extra-theoretical attitudes and representing deeper problems within diagnostic psychiatry and notions of addiction.

## The rise of diagnostic psychiatry and its problems

The institutional roots of the current paradigm of psychiatry are traced to the third edition of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-3), published in 1980, which abandoned the previous largely psychoanalytic approach in favor of a symptom-based one. Rejecting

interest in any secondary, non-observable causes of mental disorders was the core premise of this paradigm shift (Horwitz 2002, 132), aiming to make psychiatry more methodologically scientific, medically grounded, and statistically approachable. Based on these features, the new model of psychiatry has been called biological or diagnostic psychiatry. Since its inception, this model has mostly succeeded in making psychiatry socially accepted as a serious scientific and medical discipline – a position supported by governmental endorsements, international institutions such as the World Health Organization, and the emergence of the psychopharmaceutical industry in the last decades of the 20th century.

The current paradigm is not without flaws – since its advent, global mental health burden and related mortality has only increased (Institute for Health Metrics and Evaluation, 2017). Although the multiplication of diagnoses and treatment options since the appearance of diagnostic psychiatry might be seen as an achievement of methodological and theoretical advancements in the discipline, changes in politics of mental illness and appearance of new social stressors and cultural forms of outlet might be as important, if not more. While the paradigm shift of the 80s did away with some superstitious psychiatric speculation (such as the pathologization of homosexuality), it also excluded other means of explaining individual suffering than through measurable somatic or behavioral symptoms. According to health sociologist Alan V. Horwitz, “[t]he cost of the ascendancy of biological psychiatry has been to minimize arguably more powerful sources of individual distress: culture and social structure” (Horwitz 2002, 157). Since its establishment, this sort of psychiatry has been criticized for being atheoretical, biologically reductive, pathologizing normal reactions to stress, needlessly proliferating diagnoses, and serving the interests of pharmaceutical corporations (Horwitz 2002; Moncrieff 2008; Roberts 2015). These problems are further illustrated and increased by one of the main methods that contemporary psychiatry has come to rely on more and more – brain research.

## Brain politics

Given the lack of basic theory about the nature mental disorders, brain research has become a hopeful substitute explanatory tool. Functional magnetic resonance imaging (fMRI) and other brain research methods are used to explore cerebral processes and structures, and their relation to mental states. This practice, together with the symptom-based diagnostic approach, has put the discursive focus of psychiatry both literally and figuratively inside the individual, isolated from the sociocultural plane. Yet the narrowness of

this methodological focus does not prevent it from having broader implications or consequences. For example, presumptions about what is a natural healthy brain can be used as a warrant for development of new forms of biopolitical control and false normativity (Fraser 2017, 131). If a state of a brain, which is largely beyond individual control or responsibility, were to be institutionally considered flawed, the individual could then be morally or even legally obliged to “improve” or adjust their brain by external means. According to critical psychiatrist Joanna Moncrieff, such neuronormativity reinforces capitalist consumerism by suggesting “an ideal state of neurochemical balance against which everyone can be measured and can measure him- or herself” (Moncrieff 2008, 247–248) independently of personal history and social circumstances. Dissatisfaction with one’s mental state and striving for an ideal chemical balance also works as an incentive to spend on pharmaceuticals (Horwitz 2002, 205; Fisher 2009, 43), in addition to therapy and leisure as “healing” (McDonald et al. 2008, 8, 13). These circumstances are especially hazardous to the poor, who have higher prevalence rates of almost all mental disorders and are, for example, much more likely to suffer from depression caused by financial strain (Walker 2008, 140–145). Neuronormativity in the context of social inequality is doubly dangerous as it can become an additional means of objectifying and controlling the most vulnerable social groups.

Even if brains can be more or less predisposed towards certain experiences, the social interpretation, incentives, and alternatives of these experiences are of great importance as they are determined by collective configurations of meaning and action which influence whole communities, rather than single brains (Horwitz 2002, 5), and thus can be politically aggravated or improved. The current politics of psychiatry pathologize deviance and distress (as problems in the brain rather than in society) and encourage accepting social-environmental changes created by neoliberal policies (Moncrieff 2008, 249). In this way, the politics of diagnostic psychiatry mirror the broader concurrent politics of neoliberalism by failing to recognize and address systemic social problems as anything else than individual deficiencies.

## Parallels of neoliberalism and psychiatry

According to Marxist scholar David Harvey, neoliberalism is a “theory of political economic practices that proposes that human well-being can best be advanced by liberating individual entrepreneurial freedoms and skills within an institutional framework characterized by strong private property rights, free markets, and free trade” (Harvey 2005, 2). Practically, neoliberal

reforms since the 1970s have meant increased work intensity, decreased working conditions, and loss of personal control over what, how and where one works (Moncrieff 2008, 239). In turn, personal life has become more precarious, requiring quick adaptation to changing conditions, increased mobility, accepting more risks, and treating one's own personality as a project (Giddens 1991) to be managed and profited from (Benwell and Stokoe 2006). As economic and political safeties for reducing stress, such as job security or public social care, are removed, people must look elsewhere for comfort. According to critical psychologist Tod Sloan, late capitalism stabilizes itself by exploiting the extra-economic lifeworld: "<...> crises in the economic sphere are deflected into the lifeworld realms of culture, society, and personality. Among prices paid for this stability are the loss of meaning, the destruction of solidarity, and psychological crisis" (Sloan 1996, 65). When one's whole environment is in crisis, the self is the last comprehensible and responsible unit. The fundamental economic rationale at the heart of late capitalism, states Walkerdine, "demands an autonomous subject who can cope without work, social, family and community supports" (Walkerdine 2002, 2). This disconnected subject is also the subject of psychiatry. When social problems are considered only on the level of the individual, the discourse of mental illness becomes the core paradigm of explaining suffering. Rather than someone who is dealing with economic challenges and stressful environment, a neoliberal subject is described as having mental problems (Swenson 2011; Schmitt 2017). And even though it might be true that these subjects do actually develop mental disorders, the interpretation and treatment of these disorders outside of their sociocultural context is highly questionable.

In contrast, a socially aware psychiatric position identifies the role of neoliberal institutions and their values in the production of problematic subjectivities. According to psychologist Bruce K. Alexander, neoliberalism leads to a general lack of psychosocial integration, a situation of multidirectional dislocation, in which mental disorders emerge as collective symptoms of the decline of the social (Alexander 2001, 5). One of the main of these collective symptoms of dislocation for Alexander is addiction: "addiction to a wide variety of pursuits is not the pathological state of a few but, to a greater or lesser degree, the general condition in western society" (ibid.). He is not alone in singling out addiction as a neoliberal disorder *par excellence*.

## Seduction chasing as part of neoliberal subjectivity

An individual-based social ontology in neoliberal societies is expressed both institutionally and subjectively, and it is on the subjective level that neoliberalism is experienced as addiction. Privatization of public goods is followed by privatization of desire, when, as notes sociologist Anthony Elliott, social relations are reduced to the relation of the individual to its commodified object of desire: “The intended or unintended consequences of deregulation of public agencies has been a thoroughgoing privatization of life (or life-strategies) in general. In privatized, postmodern society, the individual as consumer drifts from seduction to seduction” (Elliot 2002, 12). In between the real necessity of surviving in a volatile economy and the cult of individual success, the neoliberal subject is overcome by what cultural theorist Mark Fisher called depressive hedonia – a form of despair “constituted not by an inability to get pleasure so much as by an inability to do anything else except pursue pleasure” (Fisher 2009, 28). Pleasure in this case is not a possibility but a necessity, thus assuming an addictive quality. Addiction understood in a broader sociopolitical context appears not as a personal (/brain) issue which causes social problems but as an effect of social problems which changes in response to the environment (Fraser 2017). The more social problems and the less social support – the more addiction.

### “Addicting” as a disciplinary political tool

Addiction researcher Suzanne Fraser and her colleagues (2017) interpret the “diseasing” of addiction as a biopolitical tool of control rather than an expression of public/scientific concern with reducing people’s suffering. The historical transition from seeing addiction as immoral in the 19th century to seeing it as a disease since the middle of the 20th century does not remove stigma from the persons concerned but only generates more avoidance, shame, and submission (*ibid.*). According to this theory, addiction is not so much a description of a behavior or experience but a prescription of status. Thus, one alternative way of understanding addiction is seeing it as “a means by which contemporary liberal subjects are schooled and disciplined in the forms of conduct and dispositions required to belong, and to count as fully human” (*ibid.*, 199). This is further illustrated by how addiction functions through selective social labelling which is used for socially deviant practices such as recreational drug use but not, for example, regular use of medical opiates for pain (Keane and Hamil 2010). Despite all doubts or perhaps in response to them, psychiatrists seem very keen to bid

on the medical objectivity of addiction and rely on brain research to provide long-missing proof.

## Brain research as ground for proliferation of addictions

Brain researchers of addiction state that substance and behavioral addictions share similar patterns of brain activity and changes (Kuss and Griffiths 2012; Alter 2017). This supports the expansion of the notion of addiction beyond concrete substances and towards an indefinite variety of activities, at the same time placing the cause of addiction in the subject rather than the object (no substance itself causes addiction). The basic brain model of addiction defines it as a neurological reward deficit (Kuss 2015, 79) where sufficient satisfaction is only achieved through a particular substance or activity which alters brain circuitry and becomes the most (or only) efficient source of dopamine which fires these circuits. Such observable changes in brain biochemistry are used as confirmation of the pathological nature of addictive behaviors, also allowing almost any rewarding activity to be labeled addictive. More peculiar still is that instead of removing the boundaries between different addiction diagnoses, contemporary psychiatry seems to move in the paradoxical direction of unlimited proliferation of discrete addiction diagnoses, based on the objects of addiction. And even though it is hard (and unnecessary) to deny the facticity of brain changes in “addicted” subjects, the reliance on brain research in explaining addictive disorders appears highly problematic in its reductionism when looking at concrete diagnoses and their psychosocial context. I further illustrate that by analyzing the diagnosis of IGD and the scientific discourse around it.

## Approach

Internet gaming disorder (IGD) is a diagnosis under consideration for inclusion with substance-related and addictive disorders in DSM-5 (American Psychiatric Association 2013, 795–798). The DSM criteria for IGD follow criteria for substance-related disorders and require the presence of 5 or more of the following 9 symptoms over a 12-month period: preoccupation with internet games, withdrawal, tolerance, unsuccessful attempts to control the behavior, loss of interest in other things, related psychosocial problems, lying to others about one’s gaming, using games to escape problems, and related social or occupational problems (*ibid.*, 795). The causality of IGD is unclear – access to video games seems to be the only necessary and sufficient condition

for developing the disorder. This tautology is named in the DSM-5 as the *single* environmental factor related to the diagnosis: “Computer availability with Internet connection allows access to the types of games with which Internet gaming disorder is most often associated” (ibid., 797). One of the reasons for such theoretical obscurity is the copying of substance-addiction model for a non-substance diagnosis. As Bean and others note, “the diagnosis assumes that such criteria [of addiction – B.G.] can be applied to two different sets of behaviors with only the name of the behavior changed (e. g., “alcohol” and “gambling” to “video games”)” (Bean et al. 2017, 379). Furthermore, the implementation of the substance-addiction framework is highly suggestive about how researchers should approach the diagnosis, when original guidelines are lacking. In these circumstances, the discrepancy between the object of the diagnosis and the framework of understanding it results in empirical research lacking proper methodological and theoretical support. It is as if an old scientific paradigm is being clumsily tried to employ for a challenge which is outside the limits of the paradigm, to put it in terms of Thomas Kuhn (Kuhn 1962). Kuhn’s thought is also relevant for this case in another way – marking the importance of the social consensus of a scientific community: “As in political revolutions, so in paradigm choice – there is no standard higher than the assent of the relevant community<...> this issue of paradigm choice can never be unequivocally settled by logic and experiment alone” (ibid., 93). The social nature of scientific consensus makes it available for sociological and political questioning. Given the theories presented in the previous chapter, suspicions towards the scientific discourse on IGD are easy to raise. Neoliberal ideas of subjectivity, biological reductionism, politically biased neuronormativity, pathologization of everyday behaviors, and economically motivated proliferation of diagnoses are the core social elements of the discourse to look for, besides formal (“normal science”) issues surrounding the diagnosis itself.

## Method

To understand the discourse on IGD, I aimed to get an extensive impression of all scientific/academic articles written about it. A search for “internet gaming disorder” among English-language article abstracts in EBSCO Academic Search Complete database returned 311 results. Due to the high number of articles and their limited accessibility, I chose to focus on the content of their abstracts and only selectively delved into whole articles, based on their representative value in terms of the main topics which emerged in the abstracts. Abstracts of all the articles were extracted with



Zotero reference management software and then coded using MAXQDA 10 qualitative data analysis software. After an initial review, 64 abstracts turned out to be irrelevant due to focus on other topics than IGD or lack of definitive statements, leaving 247 to be analyzed. The earliest articles were published in 2014 and the latest – in February 2019.

To reduce the influence of my own expectations on forming the overall picture of the discourse, I employed a grounded theory approach, coding segments of content from the bottom up, that is, assigning original codes to all statements and findings presented in the abstracts and only later categorizing these codes into broader categories for critical thematic discourse analysis (Parker 2011), asking *what are the main features of the scientific discourse on IGD and what, if any, political bias and social normativity is expressed in its content and form.*

## Analysis

Category Code	Subcodes	Root Codes
Subject descriptions (180)	Impulsive (68)	Chasing rewards; without control; compulsive; has impaired decision making; discounts delay; more risking.
	Has emotional problems (24)	Emotionally vulnerable; hostile; angry; moody; stressed; has low self-esteem; suicidal.
	Has other psychopathologies (24)	ADHD; anxiety; depression.
	Has attention bias (23)	Preoccupied; craves video games; has distorted cognition.
	Experiences decreased well-being (23)	Sleeps less; has poor health; performs worse academically; copes dysfunctionally; procrastinating; escapist; unmotivated.
	Has social problems (12)	Socially isolated; worse family relations; lack of live interaction.
	Non-negative descriptions (6)	Normal risk taking; quicker reaction; no attention bias; normal coping.

Predictors (153)	Demographic (35)	Lower education; young age; unemployment; being male; Chinese ethnicity.
	Game related (33)	Bonding to avatar; high amounts of gaming; gaming-contingent self-worth; reward orientation; playing RPG, FPS, and RTS games.
	Social (20)	General social vulnerability; problematic families; being single.
	Other mental disorders (17)	Anxiety; ADHD; depression.
	Psychological and emotional problems (16)	Aggressiveness; neuroticism and extraversion; denial coping; poor regulation of emotions; frustrations about basic psychological needs; stress; neuroticism and introversion; impulsiveness.
	Cognitive (12)	Negative and future positive time-perspective; high immersion; attention problems.
	Biological (10)	Altered brain-wave coherence; lower glutamate serum levels; risk leaning brain; genetic predisposition; biological symptoms of chronic threat, uncertainty, and distress.
	Dissatisfaction with life (10)	Frustration about basic needs; interpersonal problems; somatic complaints; poor academic performance.
Supportive research (70)	Epidemiology (26)	-
	Confirmed (national samples) (23)	Persian language; Lebanon; Spain; Sweden; Slovenia; Italy; Turkey; Netherlands; Iran; Arab speaking countries; Portugal; Germany; China.
	Refining methodology (16)	Differentiating high and low severity; importance of differentiating recreation and addiction; improved screening methods.
	Biological confirmation (5)	Decreased heart rate variability; biosignal changes; biochemical markers; tolerance confirmation.
Brain research (63)	Altered brains (37)	Altered; enhanced; resilient; different from recreational gamers.
	Disordered brains (24)	-
	Both enhanced and disordered brains (1)	-
	Same brain process in healthy and IGD subjects (1)	-

Critique (52)	Methodological concerns (38)	Difference from engaged gaming; no consensus on assessment; lack of basic theory; poor definitions; confirmatory approach; lack of gamers' endorsement; lack of qualitative studies; unclear causality; weakness of criteria; formative, not reflective construct.
	Meta concerns (9)	Danger to downplay suffering if ignored; coping with life problems, not addiction; overlooking benefits of gaming; repressive sociopolitical effects.
	Weakness of treatment options (5)	Dubious treatment services; unclear preventative measures.
Comparisons (47)	To other mental health problems (24)	OCD; ADHD; nicotine dependence; alcohol dependence.
	To internet use and offline gaming (12)	Internet addiction; social network addiction; offline games; academic online activity; generic internet use.
	To gambling (11)	-
Treatment (40)	Psychotherapy (17)	Virtual reality therapy; reality therapy and mindfulness; therapeutic residential camp; cognitive-behavioral treatment; equine-assisted therapy.
	Prevention (13)	Mindfulness; positive father-son relationship; physical activity; education; religiosity; abstinence.
	Pharmaceutical treatment (7)	Bupropion and escitalopram; atomoxetine and methylphenidate.
	Medical therapy (3)	Magnetic and current stimulation of the brain; neurofeedback therapy.

In the end, I used 217 different codes 605 times and categorized them under 7 leading themes: Subject Descriptions (n=180), Predictors (n=153), Supportive Research (n=70), Brain Research (n=63), Critique (n=52), Comparisons (n=47), and Treatment (n=40). In many cases, it was hard to define exactly which category to assign a code to, when they matched more than one or were ambiguous in their intended meaning. Yet the same ambiguities turned out to be illustrative of deeper issues within the discourse.

## General situation

Of 247 analyzed article abstracts on IGD, most support its validity. Even though the majority of abstracts do not articulate explicit support for the diagnosis, I treated abstracts describing a subject with IGD or naming predicting factors of IGD, for example, as requiring a presumption or assertion about its existence, meaning that, despite Supporting Research statements making up a relatively small part of all segments, the diagnosis is widely endorsed. Brain Research, Treatment, and Comparison segments also mostly approach IGD as something to be confirmed and solved rather than questioned, thus making Critique a minor part of the whole discourse. Most of the critique for IGD is concerned with improvable methodological issues rather than questions about the very existence or theoretical context of the diagnosis. The dominant message in the discourse of the abstracts is that IGD is a legitimate new type of disorder, valid at least in its basic premises, if not all the details.

Brain research and quantitative confirmatory studies are the dominant forms of evidence in the discourse. Quantitative studies find expected symptom relations and a relevant percentage of people for whom internet gaming is associated with significant distress and dysfunction, based on the DSM-5 criteria. Brain research further cements the reality of IGD by providing empirical proof of specific gaming-related changes in brain structure, similar to changes in brains of people with other addictions. Like other subjects suffering from addiction, IGD subjects are found to have diminished self-control, excessive attention towards the object of pleasure, other psychological and social problems, and overall decreased quality of life. While causation of IGD is not strictly defined, it is implicitly or explicitly agreed that developing the disorder is not the subject's fault and can be explained in factors that are not dependent on one's choice: biological predisposition, social vulnerability, and personal traits and health conditions. Dealing with the problem is also considered to be beyond personal power and to require professional external intervention in the form of various therapies and medication, even if their effectivity is not fully agreed upon.

## The prescriptive and self-confirming nature of the concept

One thing that stands out in the overall picture of the scientific discourse revealed in the abstracts is the confirmatory nature of most approaches. Few questions whether clusters of symptoms are enough to make discrete

disorders, or how and why the point which divides the scale of health into normality and pathology is determined. One explanation for this situation is that the working definition of the disorder does not rely on any theory and is essentially unfalsifiable (Bean et al. 2017, 379). Most scientists take the model of IGD as given and their studies are limited to determining whether empirical data matches some fragment of this model. In most cases, the validity of IGD is confirmed by testing the validity and reliability of specific tests created to measure it. For example, in Slovenia, scientists tested the short form of 9-item IGD scale (IGDS9-SF, attached in the appendix) by having 1071 Slovenian eighth graders fill it out and then conducting confirmatory factor analysis to test whether the gathered data corresponds to the proposed measurement model, and obtained “excellent results” (Pontes et al. 2016, 304). Other studies mirror this example and discover rates of occurrence of IGD that vary from 0.3% to 14.6%. Such scientific practice only shows that a tool is consistent in its own confirmation but cannot answer whether the theory behind it is true or necessary, or useful in a broader context.

The confirmatory attitude present in quantitative studies is also present in abstracts describing brain research. Segments falling under Brain Research are mostly supportive of the validity of IGD. These segments describe brain changes in “IGD-positive” subjects, observed using functional magnetic resonance imaging (fMRI). Differently from quantitative studies which rely on subjective evaluation, fMRI studies rely on associations of brain functions and structures with certain character traits. The essential structural parts of a brain research abstract are as follows: introducing previous association of brain parts with character traits and capabilities, presenting study methods (either resting state or gaming process fMRI of IGD subjects compared to “healthy controls”), describing observed differences, and confirming association between brain changes, related personal changes, and IGD (see, for example, Zhang et al. 2016; Weinstein et al. 2017). The latter pattern is dominant in the segments about brain research supporting IGD and illustrates how the research is always already based on an unspoken presumption about the meaningfulness of comparisons of empirical data outside of any broader theory of meaning and subjectivity.

## Confusion about disorder/difference

I applied two codes to segments about brain-related statements: Altered (24) and Disordered (23). Not all authors refer to brain changes as disorders, even though the patterns of presenting findings are very similar. An Altered formulation only declares observations: “These findings suggest that IGD is

associated with both functional and structural neural alterations in frontostriatal and fronto-cingulate regions” (Yao et al. 2017, 313). A Disordered formulation assigns a pathological meaning to the changes and uses evaluating words [*italics mine*]: “The attenuated frontostriatal suggests that the emotion-driven gaming urge through nucleus accumbens could not be *well regulated* by the frontal lobe of subjects with IGD” (Chen et al. 2016, 192). The ambiguous status and different interpretations of the brain changes point to extra-scientific attitudes about brains as objects of social norms. The healthy, “well regulated” brain is at least as much a social expectation as it is some average biological condition.

## Confusion about predictors/results

Subject Descriptions is a category very close to Predictors, signaling a lack of distinction between cause and effect of IGD. Barely any abstract has statements formed in a way which would directly express that “IGD is caused by x, y, and z” or “IGD causes x, y, and z”. Logical relations between symptom observations and IGD are defined as association, comorbidity, co-presence, likelihood, or similar nature, avoiding implications (or explanations) of causality. Thus, when, for example, impulsivity is described as highly associated with IGD, it is unclear what kind of association it is – whether impulsivity is a cause, an effect, a contingent accompanying symptom, or all. I used the category of Predictors for statements about likelihood of some condition or behavior preceding IGD, and the category of Subject Descriptions for statements about subject traits observed in subjects which “already have” IGD. In many places, I had doubts about which category to assign a code to, and only rhetoric nuances determined my choice. The lack of explicitness about the difference between predictors and outcomes of IGD illustrates how scientists’ attitudes, expressed in choices of how to structure and style their arguments, play a more important part in the discourse than basic theory and lucid methodology. Therefore, the categories of Predictors and Subject descriptions mirror each other and the resulting tautology of “x is the cause and effect of x” functions as a linguistic device for cementing the reality of IGD.

## Neoliberal subjectivity and omission of social factors

The terms in which IGD subjects are described provide an informative overall portrait of a disordered subject and, inversely, of a healthy subject. These portraits reveal the normative framework of neoliberal biopolitics.

The disordered subject, as constructed in the IGD discourse, is impulsive, asocial, in bad mood, potentially hostile, too focused on one thing, and of poor physical health. The healthy subject, the implied opposite, is then supposed to be always in control, extroverted, positive despite anything, non-confrontational, interested in many things, and fit. Such a subject fits perfectly in the neoliberal market which places all economic responsibility on the individual and requires quick adaptation to changing opportunities and demands. This self-reliant subject is a necessity in a socioeconomic system where institutional support is withdrawn and selling oneself as a commodity in the labor/symbolic market is the only way to survive.

Relatively few segments mention having social problems as an important aspect of IGD. That is surprising, considering that 3 of 9 DSM criteria of IGD are of a social nature. Social problems related to IGD are worsened family relationships, increased lying to others, social isolation, and lack of live interaction. As in other descriptions, it is mostly unclear whether social problems precede problematic gaming, follow it, or both. Also, these microsocial circumstances are treated as separate from the wider social reality and problems. While social factors such as age, gender, ethnicity, and education are mentioned more than once as important for predicting IGD, class, income, or material environment are not, despite usually being considered core social differentials. The absence of the topic of socioeconomic conditions in all of the articles on IGD should be seen as a symptom of a structural expulsion of such issues from the discourse.

## Conclusions and recommendations

Only when scientists limit themselves to quantitative and brain research can the diversity of gamers' experience be reduced to measures and categories which construct a manageable subject. The logic of "how much is too much?" presumes and, in effect, creates quantifiable subjects, the diversity and contexts of whose experience cease to matter. Internet gaming addiction exists in a theoretical void where causality is not questioned and there is no clear difference between deviation from average and pathology. This tendency is further emphasized by common-sense reliance on neoliberal norms of subjectivity and a notable absence of abstracts describing qualitative studies of IGD. Last, the reductive-confirmatory tendencies of diagnosis validation in the psychiatric community are signaled by an almost complete omission of social issues when researching IGD, even though a third of the disorder's symptoms are social in their nature.

If IGD is to become an official diagnosis, which it in part already has, even modest 3–5% diagnosing rates of pathological gamers (among

all gamers, of which there are around 2 billion and growing) would mean 66–110 million newly disordered subjects. This would have significant consequences – from stigmatization of “disordered” subjects to pharmaceutical and therapeutic profiteering. Politically, IGD could be another means of explaining away the structural failings and violence of neoliberalism in individual terms and medicalizing escapist discontent.

The problem of people spending excessive amounts of time playing video games (or practicing other forms of enjoyment) up to a level of socially and individually harmful neglect and alienation might be real, but the psychiatric approach of pathologization is highly questionable. To counter this tendency, research in two directions is urgently needed: 1) qualitative analyses of “addicted” subjects, delving into their social contexts, long-term experience, and personal takes on the function of their addiction; 2) data on social class and addiction – what economic and related cultural factors can show about the prevalence, causes and potential counters to the problem of addiction. Only a critical interdisciplinary approach of the complex phenomenon can provide holistic answers about how to approach it, and these answers will necessarily will have to require change beyond the individual.

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BENEDIKTAS GELŪNAS

## Metodologinė inercija ir neoliberalus šališkumas moksliniame diskurse apie internetinių žaidimų sutrikimą

### Santrauka

Nepaisant kritikos augančiai kasdienių elgsenų patologizacijai ir žaidėjų bendruomenių nepasitenkinimo, Pasaulio sveikatos organizacija neseniai paskelbė žaidimų sutrikimą esant oficialia elgsenos priklausomybės diagnoze. Kontraversiškas psichiatrų konsensusas kelia klausimą, kokią įtaką naujosios diagnozės paskelbimui padarė mokslininkų normatyvinės laikysenos ir nusistovėję instituciniai metodai. Šio straipsnio tikslas yra pristatyti naująjį sutrikimą grindžiantį mokslinį diskursą ir interpretuoti jo reikšmę platesniame sociopolitiniame kontekste, pasitelkiant kritinę psichiatriją, neoliberalaus subjektiškumo teorijas ir alternatyvias priklausomybės sampratas. To siekdamas atlikau 247 straipsnių apie internetinių žaidimų sutrikimą (koks siūlomas DSM-5) tyrimą pasitelkdamas kritinės tematinės diskurso analizės metodą (Parker 2011) ir sudarydamas kodų medžius iš apačios į viršų. Tyrimas parodė, kad daugelyje santraukų internetinių žaidimų sutrikimo sampratos remiasi patvirtinamaisiais mokslo metodais. Remdamasis tyrimu teigiu, kad pagrindiniai minimo diskurso trūkumai yra (1) stiprus kliovimasis patvirtinamaisiais smegenų

ir kiekybiniais tyrimais, kuriems trūksta teorinio pagrindo ir aiškaus priežasties ir pasekmės bei skirtumo ir sutrikimo skyrimo; (2) neoliberalių subjektiškumo normų primetimas ir (3) dėmesio socialiniam sutrikimo kontekstui trūkumas. Tai rodo, kad mokslininkų laikysenos ir įpročiai daro didelę įtaką sutrikimo legitimavimui nepaisant esminių modelio teorinių silpnybių. Siekiant suprasti probleminio žaidimo sudėtingumą ir sugalvoti geresnius būdus su juo tvarkytis nei patologizacija, reikia socialiai sąmoningų tarpdisciplininių tyrimų.

**Reikšminiai žodžiai:** internetinių žaidimų sutrikimas, diskurso analizė, neoliberalizmas, subjektiškumas, socialinis šališkumas, kritinė psichiatrija, priklausomybė.

### Appendix: Internet Gaming Disorder Scale–Short-Form (IGDS9-SF) (Pontes & Griffiths, 2015)

Instructions: These questions will ask you about your gaming activity during the past year (i.e., last 12 months). By gaming activity we understand any gaming-related activity that has been played either from a computer/laptop or from a gaming console or any other kind of device (e.g., mobile phone, tablet, etc.) both online and/or offline.

	Never	Rarely	Sometimes	Often	Very Often
1. Do you feel preoccupied with your gaming behavior? (Some examples: Do you think about previous gaming activity or anticipate the next gaming session? Do you think gaming has become the dominant activity in your daily life?)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. Do you feel more irritability, anxiety or even sadness when you try to either reduce or stop your gaming activity?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. Do you feel the need to spend increasing amount of time engaged gaming in order to achieve satisfaction or pleasure?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. Do you systematically fail when trying to control or cease your gaming activity?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. Have you lost interests in previous hobbies and other entertainment activities as a result of your engagement with the game?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. Have you continued your gaming activity despite knowing it was causing problems between you and other people?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. Have you deceived any of your family members, therapists or others because the amount of your gaming activity?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8. Do you play in order to temporarily escape or relieve a negative mood (e.g., helplessness, guilt, anxiety)?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9. Have you jeopardized or lost an important relationship, job or an educational or career opportunity because of your gaming activity?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>