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# Complexity and Ethos in eSports:
## A Multidimensional Analysis of Teleological Objectives and Social Motivations

**Giovanni Vindigni\***

DIPLOMA Hochschule, University of Applied Sciences, Am Hegeberg 2, 37242, Bad Sooden-Allendorf, Germany;
Professor and Dean of Studies', in the Bachelor's subject areas of Media Business and Media Management (B.A.), Digital Games Business (B.A.), as well as UX Design (B.A.)
ORCID: https://orcid.org/0000-0003-2387-6016
[*Corresponding author]

**Abstract**

The phenomenon of eSports, marked by its inherent complexity and multifaceted nature, resists simplification into basic formulas. This study examines eSports in its diverse forms of execution, as well as the underlying social motivations and teleological objectives. A purely heuristic reduction to simple patterns proves inadequate in light of the dynamic and variable nature of its determinants, characteristics, and expressions. These context factors, experiencing significant relevance feedback in gameplay, are not static but fluid in their relational structure. This flexibility and complexity of the constitutive elements of eSports lead to a polysemy that complicates a clear definition of its essence, underscoring the necessity of a comprehensive, multidimensional examination.

To speak of a singular, universally constituting ethos for eSports would be misleading. Instead, a proper analysis necessitates acknowledging the layered nature of eSports. Simple definitions of complex phenomena often reveal themselves as interest-driven constructions aiming to prioritise certain real aspects of a phenomenon. Therefore, this study advocates for a nuanced examination of eSports and its ethos, considering its inherent diversity and complexity.

This study's theoretic triangulation and hermeneutic analysis highlight the relevance of Huizinga's "homo ludens" paradigm and established sport theories emphasising the separation of work and eSports and the danger of increasing professionalisation in the sports sector. The marginal step of denying eSports their sports qualification becomes evident against this backdrop. Critical theory, particularly Adorno's and neo-Marxist sports theories, views competitive sports as "alienated labour," a perspective applicable to eSports. Simplistic approaches like "sport is play" or "competitive sport is alienated labour" prove misleading in the context of eSports. Conversely, abductive definitional approaches should holistically accentuate the uniqueness and specificity of eSports, considering all relevant aspects. In the sense of a nominal definition, these efforts should include a factual-scientific foundation, weighting, and alignment of the dominant aspects of eSports.

The study concludes that optimisation processes in eSports require a balance between maximal performance and sustainable development, respecting the physiological and psychological limits of human capacities and ethical principles. The optimisation process generally aims to fully unfold individual and collective abilities while considering the physical and psychological aspects of eSports athletes. This approach highlights the need for an ethical and responsible approach in eSports to ensure the well-being of eSports athletes and the integrity of eSports.

## INTRODUCTION

Given their inherent complexity, certain subjects resist simplification into basic formulas, a statement that particularly applies to the contemporary phenomenon of eSports. This assertion holds true for eSports in its various forms of execution, as well as the underlying social motivations and teleological objectives, including associated norms and

attitudes. Consequently, what is determined as the ethos of eSports from a consensus-theoretical perspective cannot be heuristically reduced to simple patterns (Irwin et al., 2020: 173–177; Vindigni, 2020: 100).

The complexity in analysing eSports stems from the nature of its determinants, characteristic bearers, and manifestations, typical for such complex phenomena and contextual factors (Poulus et al., 2021: 745–748; Sauer, 2019: 35–42; Vindigni, 2023a: 727–731; Vindigni, 2023b: 30–61; Vindigni, 2023c: 290–305; Vindigni, 2023d: 93–131; Vindigni, 2023e: 177–207; Vindigni, 2020: 154). These elements, which experience significant relevance feedback in games, are not characterised by a static relationship structure. Instead, they represent variable dimensions that are distinguished by different connotations and can even be dispensable in certain cases. This dynamic complicates a clear determination and examination of the elements that constitute the essence of eSports.

Given these circumstances, it seems inappropriate to speak of a singular, genuine essence of eSports and a universally constitutive ethos (Vindigni, 2020: 190; Qian et al., 2019: 831–837). Instead, a differentiated examination requires recognition of the multifaceted nature and specific characteristics that shape eSports and its ethos (Parry, 2018: 1–13). It is incorrect to speak of a fixed entity of eSports, just as it would be misleading to assume a uniform entity of human professional work or the nature of human relationships (Liu et al., 2020; Vindigni, 2020: 217). Each of these entities is characterised by inherent diversity and complexity, which counteract a heuristic reduction of complexity (Vindigni, 2021: 50). Simple definitions of complex issues often turn out to be interest-driven constructions. They aim to give certain structures within the real manifestations of a given phenomenon a priority or even an exclusivity claim (Jörissen, 2018: 51–70). Such an approach risks overlooking or suppressing the inherent intricacy and diversity of the subject matter.

In the context of hermeneutic and theory triangulation analysis of eSports, the relevance of Huizinga's "homo ludens" paradigm becomes evident, especially in efforts to interpret the constitutive structures of eSports through the lens of playful elements, as Huizinga (1998: 186–188) outlined in his seminal work (Huizinga, 1951; Vindigni, 2020: 362; Vindigni, 2023d: 97). These approaches aim to understand and explain the essence of eSports' playful nature (Vindigni, 2023c: 290–305; Vindigni, 2020: 398). In the discussion on the nature of sports, Diem (1960), one of the most significant and influential sports theorists of the 1960s, refers to the embedding of all sports in the broader context of play. Diem (1960: 3) posits: "Sport is a phenomenon from the larger life realm of play."

Play is a purposeless activity for its own sake, thus contrasting with work, which he defines as "a sustained effort to sustain existence." In his critical engagement with the intertwining of work and sports, Diem (1969: 25) strives for a clear distinction to counter the increasing professionalisation in the sports sector (Borggrefe, 2021: 408–418; Parry, 2021; Diem, 1982: 98–112). He argues: "Professional sports are not sports, but the opposite thereof: commerce." Furthermore, Diem (1969: 6) advocates for a clear separation of "pure" sports from the concept of "day's work," which "originally weighed on the serf," to emphasise the essential distinction between professional work and the original spirit of sports. Against this backdrop, the step of denying not only performance-oriented professional sports but also performance-oriented eSports their sports qualification seems marginal. This perspective, rooted in Adorno's critical theory, views both as antitheses of sports, namely as different manifestations of "alienated labour" (Gordon et al., 2020: 84–92; Krüger, 2004: 21–32; Morgan, 1988: 813–838; Morgan, 2022: 45–51; Gruneau, 2018: 34–39; Sayers, 2003: 107–113; Manhart, 2020: 377–382; Herzog & Brändle, 2015: 162–175; Carrington & McDonald, 2008: 55–59; Rigauer, 1969: 87–94; Vinnai, 1970& 2006: 28–41). Such an interpretation has been particularly examined and advocated by neo-Marxist sports theorists from the 1960s to the present (Zeyringer, 2016; Schiller & Young, 2010; Prokop, 1971).

Reductive conceptualizations, such as the equation "sport is play" or the characterization of "competitive sport as alienated labour," prove misleading in the context of eSports (Huizinga, 1951; Huizinga, 1998: 187–188; Florschütz, 2015: 84–93; Rigauer 2022: 56–67; Stradling 2009: 29–33; Diem 1982: 156–177; Decker 1987: 1–63). Such simplified perspectives neglect the nuanced and multidimensional aspects that shape eSports in its current form. This fact should not, however, prompt questioning of the necessity and inherent value of abductive definitional approaches as a whole (Vindigni, 2023d: 292; Nitsch et al., 2022; Popper 2002: 144–153; Richter et al., 2018: 62–83). It is evident that not every entity is identical (Zdunek, 2013: 96–102). Definition efforts are justifiably aimed at differentiating a specific phenomenon from others and accentuating its unique features. Such a process of definition requires meticulous methodology, ensuring that no elements are arbitrarily overlooked that are recognised as relevant aspects of the encompassing designation in common parlance (Vindigni, 2023f: 162–170).

In this context, not every detail is equivalent. Definitions seek to determine a particular phenomenon in contrast to others and profile it based on what makes it unique. This must necessarily be done in a manner that does not exclude any relevant aspects that are anchored in common language usage under the encompassing designation of the phenomenon (Vindigni, 2023f: 168). In such cases, we speak of usage definitions or, with adequate factual-scientific substantiation, weighting, and allocation of the dominant aspects, of nominal definitions (Lam, 2018; Frank, 2015: 43–61; Dudda, 2007: 161–176).

## MATERIALS AND METHODS

To ensure a rigorous and comprehensive review of the literature in the field of adaptive learning in higher education and its impact on professional competence development, a methodical search strategy was employed, guided by the PRISMA framework (Page et al., 2021). This entailed a thorough search in December 2023 of the following prominent educational databases: ERIC, Education Source, Scopus, ProQuest, PsychINFO, JSTOR, EBSCOhost, and Google Scholar. The

search harnessed a combination of pertinent keywords and their synonyms, including terms such as "eSports," "eSports Ethos," "eSports Complexity," "Multidimensional Analysis," "Social motivations in eSports," "Teleological Objectives," "Heuristic Reduction," "Variable Determinants," "Constitutive Element," "Professionalisation in Sports," "Ludic elements in eSports," "Performance vs. Game," "Alienated labour in eSports," "Critical Theory and Application," "Neomarxist Perspectives," "Ethical Dimensions," "Digital Sports," "Huizinga's ‚Homo Ludens'," "Contemporary Sports Theory," "Nominal Definitions in eSports," "Thematic Complexity in eSports," and related terminology. For each database, search terms were meticulously tailored to match the unique syntax, tags, and indexing language.

The search parameters were confined to peer-reviewed empirical studies published in English from 2012 to 2023, ensuring the inclusion of contemporary and relevant research. The initial screening of 462 records, based on titles and abstracts, focused on their relevance to the review's scope and key questions. At this stage, inclusion criteria mandated that the studies investigate adaptive or re-adaptive learning methodologies within higher education contexts, specifically those exploring professional competence development and/or outcomes. An extensive assessment of 85 full-text articles led to the selection based on these criteria, supplemented by 43 additional sources identified through manual reference list checks of key articles. Ultimately, 27 studies satisfying all criteria were incorporated into the review.

Exclusion of studies at the full-text review phase was predicated on several grounds: lack of empirical assessment of professional competence outcomes, exclusive focus on foundational knowledge gains, non-applicability to higher education settings, redundancy of data, or misalignment of intervention or scope with the study's focus.

The PRISMA flow chart in this study transparently delineates the application of exclusion criteria throughout the research process. To address the complexities inherent in the subject of "Digital Athleticism: Ethical Ethos and Practice in the Contemporary Realm of eSports," this study adopted a qualitative methodology rooted in theory triangulation and hermeneutics, aligning with the consensual theoretical approaches prevalent in specialised ethical disciplines. Utilising secondary data sources, this approach harnesses existing information directly pertinent to the intricate nature of eSports.

The PRISMA flow chart demonstrates how the exclusion criteria were employed in the current study (Fig. 1).
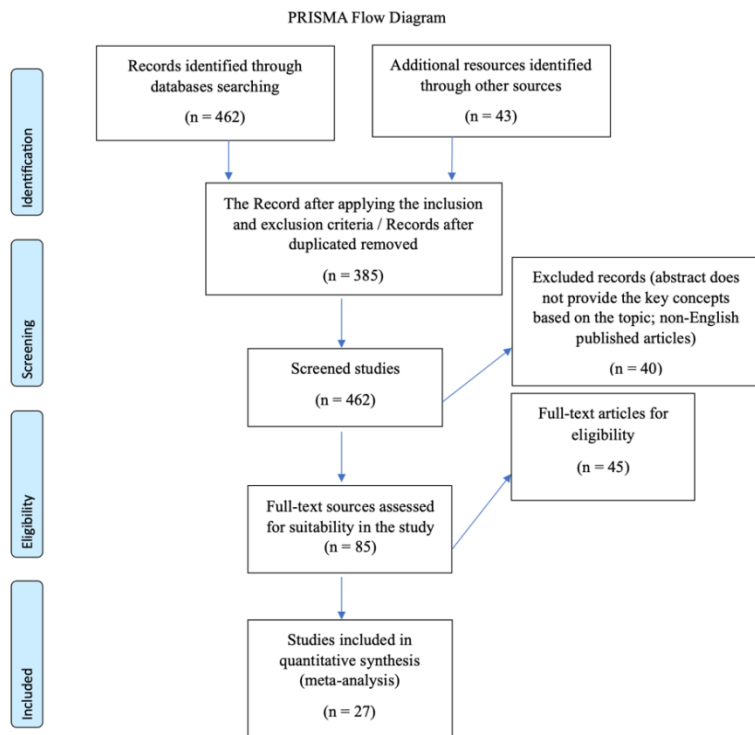


**Fig. 1** PRISMA flow chart indicating selection of articles for analysis

The research methodology was underpinned by a robust thematic analysis framework, enabling a meticulous examination of patterns, themes, and nuanced concepts intrinsic to the data, all in resonance with the overarching research objectives. This analytical journey commenced with an in-depth engagement with the comprehensive dataset, leading to the crystallisation of fundamental concepts and emergent themes. These identified themes were then rigorously examined within the context of the research aims, culminating in insightful, theory-informed conclusions and actionable recommendations.

Conscious of the inherent limitations of this methodological approach, particularly the potential for selection bias in sourcing data and the subjective leanings of thematic analysis, proactive steps were taken. A deliberately diverse spectrum of data sources was employed, encompassing peer-reviewed journal articles, seminal books, detailed reports, and other pertinent scholarly documents sourced from an array of reputable academic databases. This was complemented by a stringent and systematic thematic analysis procedure designed to ensure a comprehensive and unbiased exploration of the thematic landscape of digital athleticism in eSports.

## RESULTS

### The Agonistic Fundamental Conception of eSports: A Critical Discourse Analysis on the Issue of Sports Justice

This investigation initially adopts an approach aimed at elucidating the complex phenomenon of eSports through the analysis of its historical contexts and redefining it. This effort is rooted in a consensus emphasised in pertinent analyses that both combative and playful elements play a significant role in the execution of eSports (Soll, 2021: 54–67; Troupe, 2019: 128–132; Hedlund et al., 2020: 54–67; Reitman et al., 2019: 32–50; Rogers, 2019: 122–127; Jenny et al., 2016: 1–18; Gruppe et al., 2012: 81–83; Spaaij, 2009: 1109–1117).

The current discourse often tends to immediately raise the question of which element—combative or playful—is predominant or more relevant in the enactment of eSports without first undertaking a propaedeutic clarification of each aspect's anthropological foundations (Stewart & Strathern, 2021: 48–68; Karhulahti, 2020: 52–54; Besnier et al., 2018: 162–171).

According to the scientific consensus, supported by extensive behavioural research findings, it is the combative facet, particularly in the form of aggression towards both conspecifics and heterospecifics, that is understood as a central and deeply rooted component of the motivational life in both animals and humans. This holds true regardless of the diverse contextual factors influencing diversity, toxicity, hate dynamics, and mental health (Stewart & Strathern, 2021: 48–68; Jekauc, 2018: 51–52; Schürmann, 2016: 55–90; Segets, 2020: 92–105; Vindigni, 2023b: 30–61; Vindigni, 2023c: 290–305; Vindigni, 2023d: 93–131; Vindigni, 2023e: 177–204). Conversely, playfulness emerges as a phylogenetically later and subsequent sublimation structure of the drive structures, characterised by the transformation of elementary drive forms onto a new, more differentiated level (Schmitt, 2013: 91–96; Maestripieri, 2012: 45–48; Székely et al., 2010: 185–193; Pellegrini, 2009: 132–155).

Play is manifested as mimesis, a form of imitation (Wulf, 2022; McDonald, 2019: 855–873; Wulf, 2014: 99–127; Schrier & Gibson, 2010: 28–33; De Freitas & Oliver, 2006: 249–264). In its general appearance as a distinct phenomenon, it reveals the inherent property of play to replicate life processes and circumstances, thus providing a simulation of serious situations (Dörfler & Rothfuß, 2023: 223–240; Roman-Hauduroy, 2019; Schraffl, 2014; Hendrikx et al., 2013: 1–22; Kirkpatrick, 2007: 74–93; Malliet, 2006: 377–394).

Preliminary manifestations of these phenomena can already be identified in the behavioural repertoire of various animal species (Kron, 2020: 113–134; Weber-Jonkheer & Zárate, 2009: 378–394; Dodig-Crnković & Larsson, 2005; Dixon et al., 1989: 4–50). This is particularly evident in the diverse forms of play involving ritualised combat sequences among conspecifics, characteristically avoiding the ultimate serious case, namely the physical annihilation of the opponent (ibid.). The life-and-death struggle is thus performed as a simulation (Vindigni, 2023b: 39–44; Vindigni, 2023d: 117).

A parallel phenomenon is observed in the playful rehearsal of hunting behaviour in young animals, where a surrogate takes the place of the actual prey. While in animals these simulative aspects of behaviour patterns are still instinctively driven, the reduced instinctual binding and simultaneous openness to the world in humans enable the invention of games (Fieder, 2019: 61–68; Coppinger & Feinstein, 2018: 73–79; Schroll et al., 2015: 31–36).

This implies that human behavioural drives, life processes, and action constellations are distanced from respective serious cases yet simultaneously recreated, staged, and simulated both transliterally and transmedially in the context of eSports. This principle is already evident in the doll or car play of toddlers, functioning as a type of simulation of the serious, care-specific mother-child relationship, complemented by the mimetic representation of mobility and interaction in the context of car play, which anticipates the complexity of traffic and technological interactions (Barlett et al., 2009: 96–102; King et al., 2009: 90–106; Taylor, 2009: 331–339; Tekinbas & Zimmermann, 2003: 151–154; Caillois, 2001: 91–122).

This premise is also applied in the various forms of dance, which transform a multitude of elementary impulses—whether combative, erotic, or solidarity-driven—into an aestheticized form of movement, thus enabling a synthesis of physical expressiveness and emotional resonance (Balducci et al., 2016: 413–427; Kirkpatrick, 2007: 74–93).

The same principle applies to the sophisticated form of theatre, which presents human experiences and events in a compressed and intensified form, portraying a condensation of human life reality in the teleological sense of existence mastery within a dramaturgically structured space (Jarvis, 2019: 239–241; Ash & Gallacher, 2011: 351–368; Eskelinen, 2001: 175–183).

This principle also holds for the expansive field of sports, including eSports, which transposes the modalities of existence mastery, dominated by combative confrontations, into the structure of competition. This results in a metamorphosis of fundamental human conflicts into a standardised and systematised format of athletic rivalry (Purnomo et al., 2022: 466–480; Jagoda & Makowski, 2022: 1–16; Jagoda, 2018: 231–247; Simkins & Steinkuehler, 2008: 333–355).

### Deciphering eSports Dynamics: Ethical Interplay and Justice in Competitive Gaming

Within this analytical framework, the concept of competition emerges as a central reference point for decoding the complex phenomenon of eSports, facilitating the establishment of some fundamental premises:

a) eSports, as a form of competition, emerges from an excess of human drive rather than the immediate necessities of survival. This allows individuals to engage in a competitive environment free from existential pressures, fostering an arena for comparison and measurement against others.

b)  Under this premise, the specific competitive scenario in eSports must be artificially created, signifying that eSports, as a competitive activity, does not represent an intrinsic, naturally occurring entity. Rather, it must be conceptually and inventively framed as a game, both ideationally and inventively.

c)  As an artificial conflict, eSports distinctly diverges from the real conflicts of everyday life, typically remaining without direct consequences. In this regard, eSports is viewed as a secondary concern, though, in the consciousness of many stakeholders, particularly within a professionally professionalised context, it may be deemed the most significant matter.

d)  Precisely because eSports competition is liberated from the immediate material constraints of life, it is not obliged to accept or integrate inevitable, unavoidable injustices into its foundational principles. This liberates eSports to uphold the socio-ethical demand for justice based on the comparability of performance and equal opportunity—a level of purity and uncompromising integrity seldom realised elsewhere.

e)  Within the context of eSports competition, which is emancipated from the direct pressures of daily life, a clear deontological perspective is manifested. This encompasses principles such as justice and equality of opportunity as unalienable and consequence-independent norms. Contrasting this are utilitarian elements in eSports, particularly concerning the intrinsic value and impact on the subjective well-being and satisfaction of all involved parties, including both players and spectators. Consequently, eSports competition presents a complex arena where deontological and utilitarian ethical approaches interact dynamically. This ethical stance is epitomised in the fundamental sports demand for fairness, where violations of justice principles are sensitively perceived and addressed in sports, including eSports. This manifestation, especially in the context of a rule-guided ethical principle, reveals the ethical fascination of eSports.

## Defining the Spectrum of eSports: From Physical Skills to Cognitive Mastery and Technological Synergy

Consequently, it appears that some fundamental contours have been delineated, which can be considered relevant and defining for the phenomenon of eSports in its characteristic structure and nature. Beyond this, the identification of specific intrinsic components within eSports leads to a diversification in its appearance, through which it is factually manifested and presented today.

Classifying eSports strictly within the realm of physical culture and limiting it to competitive activities essentially tied to physical self-optimisation presents a complex challenge (Giakoni-Ramírez et al., 2021: 1081–1087; Hamari & Sjöblom, 2017: 211–232; Jenny et al., 2016: 1–18). This perspective overlooks the significant mental and cognitive aspects that play a prominent role in eSports, characterising it as a synthesis of physical skill and mental acuity (Martin-Niededcken & Schättin, 2020; Thomas et al., 2019: 196; Himmelstein et al., 2017: 1–21; Hamari & Sjöblom, 2017: 211–232).

In a nuanced physiological and sports psychological examination, this assumption is partially inaccurate for the Olympic discipline of pistol shooting. Here, the paradigm of performance enhancement shifts significantly away from purely somatic performance components to cognitive and neural processes, emphasising concentration capacity, sensorimotor reaction speed, and the resilience of the central nervous system.

This premise could possibly be even more pronounced in sports that became feasible only through the development and implementation of highly complex technical apparatuses, such as gliding, aerobatic flying, and car racing. These sports share with eSports the characteristic feature of intensive interaction between human ability and technological innovation, redefining the boundaries between physical and cognitive performance as well as the role of technical aids in performance optimization. In this context, the relevance of DIN EN ISO 9241-11, 110, and 210, which pertain to the usability and user experience of interactive systems, is also highlighted, being crucial for evaluating human-technology interaction in these highly technical sports (Vindigni, 2023a: 721; Vindigni, 2023b: 40; Vindigni, 2023d: 117).

Furthermore, such sports demand specific and additional skills, as exemplified in the realm of eSports. These include a novel sensitivity for an optimal hodological interplay between human, machine, and environment, where a profound understanding of the dynamic interactions within this triumvirate is essential for effective performance optimisation (Allcoat & Evans, 2023: 39–42; Lankowski et al., 2015: 81–88; Matsumoto & Szidarovszky, 2015). Additionally, it must be considered that competitive activities requiring a no less demanding but purely cognitive form of self-enhancement, such as in chess tournaments, can hardly be denied their sports quality. These disciplines, similar to eSports, are characterised by an intense requirement for strategic thinking, planning competence, and cognitive agility, representing a parallel dimension of sporting activity where mental performance enhancement and tactical skill are paramount (Andrews & Crawford, 2021: 22–30; Pluss et al., 2019; Reitman, 2019: 32–50; Funk et al., 2018: 7–13; Hallmann & Giel, 2018: 14–20).

Finally, the question arises to what extent forms of competition where animals play a central role and their execution is inconceivable without comprehensive and diverse stewardship can also be attributed to the phenomenon of sports in the broadest sense. A striking example of this is pigeon racing, often practiced with considerable passion and extraordinary seriousness, representing a unique symbiosis of animal ability and human care and coordination (Bungarty, 2017; Schmitz, 2018: 269–272; Mohr, 1998).

## DISCUSSION
### Analysis and Ethical Evaluation of Primary and Secondary Social Motivations in the Context of eSports

A distinctly different issue, equally significant in diversifying the contemporary appearance of eSports, emerges from the varying social motivational states, as outlined in reference to Bischof (2020), serving as the driving forces behind eSports activities (Vindigni, 2020: 42–57; Hilvert-Bruce et al., 2018: 58–67).

Within the framework of the Zurich Model of Social Motivation, the socio-motivational drives, interests, and objectives characterising amateur sports manifest fundamentally differently compared to those typical of high-performance sports (Cheng et al., 2018: 153–167; Lin et al., 2023: 718–730; Riatti & Thiel, 2023: 369–383; Hilvert-Bruce et al., 2018: 58–67).

While both realms—amateur and high-performance sports in the eSports environment—share common foundational elements in their impetus for self-enhancement, the pursuit of measurement, and competitive interaction, they significantly differ in their social-motivational configurations and orientations (Chadwick et al., 2023; Preuß et al., 2022; Hayhurst et al., 2021: 1–32; Zaman et al., 2020). Additionally, it is observed that primary social motivational states and their respective specific ethos forms in which they manifest often exhibit diverging tendencies (Xu, 2023: 356–368; Frias, 2022: 100216; Atish, 2019: 338–343; Hilvert-Bruce et al., 2018: 58–67). Furthermore, in the realm of eSports, it becomes apparent that the primary social motivational states and their corresponding special ethos forms often show divergent trends. This observation underscores that, similar to other sports, the underlying social drivers and associated ethical orientations in the context of eSports frequently take different, if not opposing, directions (Butcher & Teah, 2023: 455–459; Van Hilvoorde & Pot, 2016: 14–27; Hilvert-Bruce et al., 2018: 58–67).

### In High-Performance eSports: The Central Doctrine of 'Citus, Altius, Fortius' and its Evolution

In the high-performance segment of eSports, the central doctrine of "citus, altius, fortius"—"faster, faster, higher, stronger"—is embodied. This principle, conceptualised by Baron de Coubertin, the founder of the modern Olympic Games, as a fundamental performance mandate for the sporting elite, finds a new definition in eSports through the integration of innovative elements like game mechanics. It transcends physical performance parameters to include cognitive and technological components (Thiel & John, 2018: 311–315; Himmelstein et al., 2017: 1–21). This results in a comprehensive expansion and evolutionary reconception of traditional performance dimensions of speed, height, and strength, marking a pioneering realignment of performance optimisation in the digital competitive arena, considering the DIN EN ISO 9241 standards (Qian et al., 2019: 458–479; Bànyai et al., 2019: 152117; Macey & Hamari, 2018: 344–353; Vindigni, 2023e: 143).

In high-performance sports, particularly in the domain of eSports, there is a discernible shift in motivational elements. The motivations common in amateur sports, such as the joy of playful competition, the pleasure of function, the need for physical and psychological balance, and preventive and therapeutic aspects, recede. Instead, ascetic components have become increasingly prominent for high-performance athletes, especially in eSports, emphasising that maximising capability and achieving peak performance require pronounced discipline, self-control, and a willingness to sacrifice (Sjöblom et al., 2019: 20–28; Campbell et al., 2018: 161–174; Seo, 2016: 264–272).

eSports athletes orient their entire lifestyle towards achieving extraordinary performance (Peša et al., 2017: 121–131; Borowy, 2016: 35–52). This necessitates not only temporary sacrifices of personal desires but also submission to a highly specialised, goal-directed training regimen (Giakoni-Ramirez et al., 2022: 2256; Iwatsuki et al., 202–207). Dieckert (1973: 152–156) aptly notes that there are no direct connections between high-performance and amateur sports, particularly regarding structural and motivational differences, which are even more pronounced in eSports (Giakoni-Ramirez, 2021: 1081–1087; Chung et al., 2019: 384–394; DiFrancisco & Balentine, 2018: 117–118; Seo & Jung, 2016: 635–655).

Within the eSports discipline, it is evident that the increase in popularity in one area does not necessarily explain the growth in the other (Cunningham et al., 2018: 1–6; Qian et al., 2019: 825–851; Ward & Harmon, 2019: 987–1013). It is untenable to interpret amateur sports as a direct consequence or product of high-performance sports, nor can high-performance sports be viewed as a mere consequence of amateur sports, as comprehensively explained by Dieckert (1973: 147–168). This insight highlights the independence and specific characteristics of both forms of sports, which are also evident in the context of eSports (Lee et al., 2021: 664; Fogt et al., 2021: 771–776; Richard et al., 2021: 426–434; Sung & Umar, 2020).

### The Inherent Dynamics and Societal Integration of eSports: A Comparative Analysis of the Elite and Amateur Sectors

The inherent dynamics prevailing in both amateur and professional sports within the eSports domain are made evident through their divergent societal integrations and support structures. While a majority of privately or publicly funded, cost-intensive sports facilities and establishments are primarily geared towards elite sports activities, amateur and recreational sports—attracting millions of people from nearly all age groups—often face a lack of facilities specifically designed for them, except for swimming pools, ski slopes, and budget-friendly forest sports trails (Claussen, 2022: 315–316; Messing et al., 2021: 107–115; Büch et al., 2009: 9–13; Mittler, 2009: 99–108; Frick & Ahlert, 2005). In eSports, this discrepancy is also apparent in the varying availability and accessibility of technical equipment, specialised training environments, and

empowering coaching programmes (Emara et al., 2020: 537–545; Vargas-Olarte, 2020: 63–92; Hedlund et al., 2020; Kari et al., 2019: 270–292; Ströh, 2017).

Currently, there is a lack of publicly accessible recreational eSports facilities that open up a broad spectrum of sports activities for the general public, creating an environment free from performance pressure and fear of embarrassment (Toth et al., 2021; Nagorsky & Wiemeyer, 2020; Rothwell & Shaffer, 2019: 105; Jenny et al., 2016: 1–18). The public aspect addressed here fundamentally differs from the public generated in exclusively used sports complexes, arenas, and stadiums that benefit only a select group of top athletes and their dependent spectators. In the realm of eSports, this disparity becomes particularly evident as digital platforms and virtual arenas allow for both public accessibility and an individual, performance-pressure-free sports experience within a community framework distinct from traditional sports venues (Roose & Veinott, 2020: 1780–1784; Pereira, 2019).

In this consideration, another element comes to the fore, previously unaddressed in these reflections, yet of immense importance for the development of eSports, especially professional eSports: the phenomenon of self-presentation by eSports athletes. Although an inherent tendency towards self-presentation has always existed in sports—seeking superiority over the opponent in competition and thus demonstrating one's performance—self-presentation in this context does not necessarily mean attracting the attention of others and thus does not alone establish a public realm (Giakoni-Ramirez, 2022: 2256; Hodge et al., 2021: 368–379). However, in eSports, self-presentation takes on a new dimension as digital platforms and social media enable not just an individual but also a public presentation that extends beyond personal performance demonstration and plays a central role in public image formation (Garcia-Lanzo et al., 2021: 59–62; Paravizo & De Souza, 2019: 507–515).

It is only when eSports athletes deliver performances significantly above average, surpassing what the average citizen can achieve with short practice, that they gain significance for a broader audience. These athletes not only receive personal validation of their abilities but also garner recognition from a public that identifies with their extraordinary performances, finding a form of self-affirmation in this identification. This dynamic in eSports powerfully illustrates how individual peak performances can generate collective resonance, thereby making a substantial contribution to the creation of a specific public realm. This public not only appreciates and celebrates the performance but also the personalities of the eSports athletes.

In eSports, a bidirectional feedback effect manifests as follows:
a) Athletes in the field of eSports rely on the presence and engagement of the audience, while simultaneously, the audience depends on the athletes' performances and presence to maintain their interest and enthusiasm.
b) This interplay initiates specific processes that lend additional seriousness to eSports. Within this context, eSports evolves into a stage that transcends mere athletic performance; it becomes a contest for prestige and financial rewards. This aspect transforms eSports from a pure form of entertainment into an arena where serious economic and social factors come into play.

## Reevaluating Professionalism and Amateurism in eSports: Ethical Dilemmas and Economic Realities

Particularly in this latter dimension, numerous observers and analysts recognise the real dilemmas of eSports, which are central to the problem-explorative questioning: The question arises whether eSports, in its essence, can be classified as a sport per se (Thiel & John, 2018: 311–315; Willimczik, 2019: 78–90; Hallmann & Giel, 2018: 14–20). This discussion unfolds around the core issues of prestige, economic gain, and the inherent nature of eSports, which in turn has profound implications for the definition and recognition of eSports as a legitimate sporting discipline.

In the context of eSports, there arises a necessity to maintain the integrity of the game, free from the influence of monetary interests (Czegledy, 2021: 161–170). Diem (1972: 26) asserts, 'Paid sport is not sport at all, but merely a means of earning money, thus the opposite of sport.' Based on this premise, athletic ambition should ideally be rewarded only with symbolic recognition, such as the victor's laurel. This view is still reflected in the official eligibility conditions of the Olympic Games (Bammer, 2016; Zeyringer, 2016; Krüger, 2001).

Accordingly, only amateurs, not professionals who earn a living through sports, are deemed worthy of participating in the Olympic competition. This traditional view raises significant questions regarding the definition of professionalism and amateurism in sports, especially in the era of eSports, where professional players often secure their livelihood through their sporting performances.

Currently, objections to the purist model of separating elite sports from amateur status are increasingly voiced. The call for a synthesis of elite sports and amateurism seems paradoxical, yet it has been inherent since the late 1960s. Kuchler (1969: 268–269) aptly notes that high performance in sports requires both time and financial resources. As young athletes typically lack both, these resources must be provided (ibid.). This leads to a scenario where elite athletes become apparent amateurs under Olympic regulations by receiving financial support in the form of expenses, scholarships, or government funding (Hudd, 2020; Nicks, 2020; Verret, 2018).

In eSports, where similar dynamics exist, the discrepancy between the traditional amateur ideal and the reality of professional sports is even more pronounced. It is observed that Western European expense amateurs, American scholarship amateurs, and Eastern European state amateurs each navigate different paths to manage the financial and time demands of elite sports while criticising each other based on their status (Gilardi & Martin, 2023; Wilson, 2023; Tiell & Cebula, 2020).

**Redefining Ethics and Professionalism in eSports: Bridging Tradition and Modernity in Digital Sports Culture**

The integrity of sports would undoubtedly benefit, and the actors in eSports and their associations would be spared much sophistic argumentation or even blatant hypocrisy if fundamental reforms were implemented in this regard. It is appropriate to move away from the notion that sporting seriousness and historically evolved sporting objectivity are necessarily tied to amateur status. The ethical code of eSports athletes need not be compromised by monetary remuneration, just as it is not expected of artists to act solely for idealistic reasons.

Tradition history, particularly in its reception-historical dimension encompassing the origins, forms, and impact history, reveals the etymological concept of ritual purity or impurity in relation to societal phenomena like sports, independent of elenctic conscience concepts regarding shame- and guilt-orientation as teleological goal deviation in various cultures (Müller, 2010). In the context of eSports phenomenology, this term becomes particularly relevant as it raises questions of ethical integrity and moral standards within a digitally influenced sports culture. Here, traditional concepts of purity and impurity as goal deviation need reinterpretation and confrontation in both physical and virtual arenas.

This consideration focuses on rules that are taboo or prohibit certain actions, which appear natural from a basic perspective within a cultural context. Violations of these regulations result in a loss of cultural capability, excluding individuals from certain socio-cultural and normative processes.

In eSports, this acquires special significance as digital actions and interactions must be re-evaluated and normatively categorised within a cultural and social framework. Thus, a complex situation arises where traditional concepts of taboos and prohibitions are redefined in light of digital culture and its specific dynamics.

A parallel becomes apparent, akin to the stylization present in the 'Sport-is-Play' theory. This theoretical orientation aims to establish and adaptively modify the standards of sporting competition, in line with Baron de Coubertin's concept of 'religio athletae' (Lynch, 2015; Henne, 2015; Parry et al., 2007). In the realm of eSports, this theory undergoes a remarkable update and adaptation as the digital arena and virtual competitions create a new dimension of quasi-religious reverence and cultic devotion to sporting excellence and competition.

In eSports, such tendencies of elevation lead to significant distortions of perspective, especially regarding perception, representation, and reception. This trend tends to obscure rather than illuminate the acute and urgent ethical dilemmas facing contemporary eSports. Such elevation interests hinder critical engagement with the real ethical challenges manifesting in the fast-paced, complex world of eSports, thereby impeding the urgently needed discussion on responsible actions and ethical practices in this dynamic and evolving field.

It is essential to focus on the fundamental sport-ethical dilemmas that require more serious attention, whose importance does not solely derive from a quasi-ascetic and elitist sports ideology. This moral ambiguity is inherent in sports ethics, touching on fundamental human dilemmas that affect the humane execution of eSports. These are key ethical questions that gain particular relevance within the context of eSports, shaping the moral and ethical integrity of this evolving sporting field.

In the current theory-triangulative and hermeneutic analysis, it becomes clear that the sport-ethically relevant moral ambiguities, such as diversity, toxicity, and mental health, primarily occur in the context of high-performance eSports, stemming from increasingly dominant secondary social-motivational influences and effects (Stewart & Strathern, 2021: 48–68; Jekauc, 2018: 51–52; Schürmann, 2016: 55–90; Segets, 2020: 92–105; Vindigni, 2023b: 30–61; Vindigni, 2023c: 290–305; Vindigni, 2023d: 93–131; Vindigni, 2023e: 177–204). This dynamic reflects the growing complexity associated with the ethos of high-performance eSports, especially in terms of the increasing importance of context factors that extend beyond pure athletic performance and raise ethical questions in areas of fairness, integrity, and e-sport identity. It is observed that widespread moral rigour, which fundamentally disregards the complexity of life contexts, typically chooses a reductive approach. However, in the context of eSports, it is not a matter of discrediting the existence of secondary social motivations per se. Rather, a differentiated consideration is required, recognising that these motivations are an integral part of the complex social and ethical fabric of eSports and require a deeper analysis of the associated moral questions and challenges.

**Economic Dynamics and Ethical Dilemmas in eSports: Balancing Financial Interests with Sporting Integrity**

The pursuit of public recognition, financial reward, elevation of the prestige of an eSports group or club, consolidation of national prestige, and similar goals possess a specific and relative importance within the current reality of life, leisure, and work in the context of eSports and potentially additional legitimacy. These aspects reflect the multi-layered motivational dynamics present in e-sport competition and underscore the need to evaluate these aspirations in light of a complex sport-ethical consideration that takes into account both individual and collective ambitions and their impacts on the integrity and ethical orientation of eSports. The fundamental economic integration of eSports and the market-oriented exploitation of its needs should be considered under the assumption that the conditions of a free market economy are recognised as the basis for economic optimisation.

This assumption leads to the realisation that economic factors and market forces play a decisive role in the field of eSports. It becomes imperative to reflect on the economic aspects of eSports in detail and consider them within the context of a comprehensive sport-ethical analysis, critically evaluating the potential impacts of these economic factors on the integrity and ethical orientation of eSports. In situations where such additional influences and motives manifest and intertwine with the primary intention of eSports and its teleological objective as a rule-guided competition, this cannot be

considered morally reprehensible per se, as long as the primary intention and its ethical premises remain untouched and unaffected.

This insight unequivocally underscores the necessity of a differentiated consideration of the role of economic interests in eSports to ensure that these do not undermine the fundamental ethical values and principles of sports. A moral evil in the world of eSports can only be discussed when secondary interests become dominant objectives and take precedence over all other aspects. This inevitably leads to the disregard and erosion of the rules and fairness principles that ethically legitimise and secure the eSports competition in its primary intention. When these secondary interests overshadow and undermine the fundamental ethical premises of the eSports competition, it results in an erosion of sporting integrity and the destruction of the fundamental ethical foundations that define eSports as a fair and rule-guided competition. In cases where such dysfunctions occur in the realm of eSports, they actually manifest as a significant threat. These dysfunctions have the potential to degrade eSports not only to an illusory and meaningless activity but also to question and demean the moral substance of the individuals involved as human beings. Such developments undermine not only the intrinsic value of eSports as a fair and ethically grounded competition but also jeopardise the moral integrity of the participants and raise fundamental questions about human values and ethical principles that should prevail in the digital sports culture.

## CONCLUSION

In examining the morally erosive impact on the competitive structure of eSports, it is equally reprehensible whether the cause of this development lies with the eSports athletes themselves, their team managers, coaches, etc., or with stakeholders and shareholders representing economic or governmental interests. This perspective highlights the importance of comprehensive ethical responsibility in eSports, encompassing all involved parties and considering the role of each entity in maintaining the integrity and moral substance of eSports competition.

It is equally reprehensible in the context of eSports to employ unethical methods to create an artificial imbalance of superiority, whether through medical, psychological, or moral manipulations that contravene the principles of fairness and integrity. These practices constitute a fundamental breach of the ethical norms and values of eSports, undermining the principles of equal opportunity and fair competition, which are essential for the integrity and authenticity of eSports. In the realm of eSports, practices such as bribery, coercion, and doping are, in some respects, on par and represent behaviours that, as is widely acknowledged, no longer correspond to the spirit of sports but are rather classified as criminal acts. These activities not only violate the fundamental principles of fair competition and sporting integrity but also cross the boundaries of legal and moral acceptability, making them a serious concern for the credibility and ethics of eSports.

In grappling with ethical issues in eSports, the fundamental problem emerges: Can the acceptance of health risks with potentially long-term consequences be justified in the context of pursuing high-performance goals in eSports?

This question raises essential sport-ethical considerations, particularly regarding the responsibility of eSports stakeholders towards the long-term health and well-being of eSports athletes. It demands a thorough engagement with the principles of risk management and duty of care, exploring the boundaries between the pursuit of sporting excellence and the preservation of the physical and psychological integrity of eSports athletes.

The criteria for such assessments are not merely a challenge in the field of sports medicine or a purely moral-casuistic question but represent both and, moreover, a deeply ethical-personal problem. Within the current eSports-specific ethical discourse, the difficulty arises because there is evidently no universal solution formula that would be just and permanently valid in every case.

This underscores the necessity of an individual and context-specific approach that considers both sports-medicinal and profound moral and ethical aspects to make the best possible decision in harmony with the ethical principles of eSports and the well-being of eSports athletes.

Upholding fairness in eSports encompasses not only fairness towards one's own body and psyche as an entrusted and healthily maintained asset. Equally important is fairness towards the individual and consciously chosen life design, manifested in the self-surpassing nature of eSports. This dual perspective of fairness emphasises the need to treat both physical integrity and the autonomy of personal life design in eSports as ethically relevant factors that require careful ethical reflection and assessment.

Particularly in the world of eSports, this deontological aspect of personal life design and teleological goal-setting acquires special significance, analogous to all areas where people are not content with the average but dedicate their special strength and abilities to an extraordinary, hard-to-achieve goal.

This teleological striving in eSports reflects an intensified form of existence-determining self-realisation and goal orientation that goes beyond the ordinary and the existential, manifesting in the dedication to ambitious and challenging goals, which in turn requires profound ethical considerations regarding personal responsibility and the orientation of one's own life within the eSports sector.

The expression 'Bonum arduum', coined in the language of popular philosophical Scholasticism, describes the difficult, demanding, and challenging good that arises when individuals dedicate themselves to a singular, utmost potentiality of being. This philosophical perspective finds a resonating application in the world of eSports, where eSports athletes exert extraordinary efforts and ambitions to achieve peak performances and self-realise in a field that demands the highest mental and physical standards.

Applying this concept to eSports underscores the ethical dimension of the pursuit of excellence and the deep personal commitment involved in realising such demanding goals. The ethos of elite athletes in the realm of eSports is indeed a frontier ethos, reflecting the inherent complexity and multi-layered challenges of this sector. Within this framework, it cannot be expected that all aspects seamlessly interlock or directly offset each other. Instead, this ethos requires a differentiated view that recognises the specific tensions and balancing acts as sport-ethical dilemmas inherent in elite performance in eSports, particularly regarding the ethical, physical, and psychological demands placed on eSports athletes.

Recognising the complexity of the elite athlete ethos in eSports in no way implies an endorsement of utilitarian profanity, frivolity, or irresponsibility. On the contrary, unnecessary risks and foreseeable, disproportionate harm must be decisively avoided and should neither be trivialised nor downplayed. In the world of eSports, not every action or decision can be justified, especially when they have the potential to endanger the health and well-being of athletes. Emphasising the central importance of an ethically grounded and responsible methodology that prioritises the well-being of eSports athletes and the preservation of the integrity of eSports is essential.

Elite athletes in the realm of eSports must always be aware of the consequences their decisions and actions entail. Such awareness justifies the self-imposed hardships and efforts of e-sports activity, including all associated demands, hardships, and risks. In this context, the effort of elite athletes in the domain of eSports cannot be interpreted as an externally induced or psychologically 'alienated' activity or as an escapist tendency that could be attributed to late-capitalist performance society. Instead, it is a conscious and self-determined decision of the eSports athletes, rooted in individual freedom of choice and the teleological pursuit of personal excellence and self-realisation in eSports.

For elite athletes in the segment of eSports, it remains essential to realise that the pursuit of the Olympic ideal "citius, altius, fortius"—faster, higher, stronger—cannot be continued indefinitely. This insight implies that in eSports, the goal of future development lies not in unlimited maximisation but in targeted optimisation per se. This means that progressivity in eSports requires a balanced approach between the utilitarian pursuit of performance enhancement and the deontological consideration of health, well-being, and long-term sustainability, where the limits of what is possible and responsible must always be reflected and respected.

Optimisation in the context of eSports implies no heuristic or physiological reduction of human possibilities and attainabilities. Rather, it aims to avoid homogenization and instead maximise each individual's performance and potential through targeted personal development. This process is oriented towards the respective complexity and diverse requirements to enable the optimal manifestation of each individual within the dynamic eSports environment. This process of self-optimisation in eSports focuses on fully unfolding individual and collective abilities while fully respecting the boundaries of human capacities and ethical principles.

The teleological dimension in the domain of eSports lies in establishing a balance between maximum performance and sustainable development, taking into account both the physical and psychological aspects of eSports athletes. Here, utilitarian principles, aiming at the greatest possible well-being and satisfaction of eSports athletes, are linked with deontological imperatives. This convergence emphasises the ethical duty to achieve performance in a way that is both morally justifiable and personally fulfilling. Thus, this e-sport ethical approach aims to achieve outstanding performances that benefit both the individual eSports athletes and the broader community without compromising fundamental ethical values.

Such unparalleled peak performances, pursued both in everyday life and in the realm of eSports, face the inherent brokenness of all human endeavours with their own scars. This premise asserts the fundamental human condition in relation to its existence-determining coping with life, that both in the general conduct of life and in the specific context of eSports, perfection is always accompanied by imperfections.

These imperfections and scars are an integral part of the pursuit of excellence and lend the process of optimisation in eSports a profound human dimension, emphasising the recognition of limitations and the importance of continuous learning and growth as a form of appropriation.

## DECLARATION OF CONFLICT
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# REFERENCES

1. Allcoat, D. & Evans, C. (2023). *Meaningful game design: The Methodology and Psychology of Tabletop Games*. CRC Press.
2. Andrews, S. & Crawford, C. M. (2021). *Handbook of Research on Pathways and Opportunities into the Business of Esports*. IGI Global.
3. Ash, J. & Gallacher, L. A. (2011). Cultural geography and videogames. *Geography Compass*, *5*(6), 351–368. https://doi.org/10.1111/j.1749-8198.2011.00427.x
4. Atish, G. (2019). ETHICS IN ESPORTS. *Gaming law review*, *23*(5), 338–343. https://doi.org/10.1089/glr2.2019.2357
5. Balducci, F., Grana, C. & Cucchiara, R. (2016). Affective level design for a role-playing videogame evaluated by a brain–computer interface and machine learning methods. *The Visual Computer*, *33*(4), 413–427. https://doi.org/10.1007/s00371-016-1320-2
6. Bammer, A. (2016). *Die Olympischen Spiele: Vermarktung und Beginn der kommerziellen Entwicklung*. Diplomica Verlag.
7. Bányai, F., Griffiths, M. D., Demetrovics, Z. & Király, O. (2019). The mediating effect of motivations between psychiatric distress and gaming disorder among esport gamers and recreational gamers. *Comprehensive Psychiatry*, *94*, 152117. https://doi.org/10.1016/j.comppsych.2019.152117
8. Barlett, C. P., Vowels, C. L., Shanteau, J., Crow, J. J. & Miller, T. (2009). The effect of violent and non-violent computer games on cognitive performance. *Computers in Human Behavior*, *25*(1), 96–102. https://doi.org/10.1016/j.chb.2008.07.008
9. Besnier, N., Brownell, S. & Carter, T. F. (2018). *The Anthropology of Sport: Bodies, Borders, Biopolitics*. University of California Press.
10. Bischof, N. (2020). *Das Rätsel Ödipus: die biologischen Wurzeln des Urkonfliktes von Intimität und Autonomie*. Psychosozial-Verlag.
11. Borggrefe, C. (2021). Systemtheoretische Überlegungen zur Unterscheidung von Sport und ESport. *German Journal of Exercise and Sport Research*, *52*(3), 408–418. https://doi.org/10.1007/s12662-021-00788-6
12. Borowy, M. (2016). The Asian Mobile Gaming Marketplace: Context, Opportunities and Barriers. In *Mobile communication in Asia* (S. 35–52). https://doi.org/10.1007/978-94-024-0826-3_3
13. Büch, M., Maennig, W. & Schulke, H. (2009). Finanzierung von Sport – im Spannungsfeld von Markt und Staat. In *Edition HWWI* (S. 9–13). https://doi.org/10.15460/hup.214.1578
14. Bungarty, J. (2017). *Der Brieftaubensport: Taschenbuch für Brieftaubenzüchter und-Liebhaber (Classic Reprint)*. Forgotten Books.
15. Butcher, L. & Teah, K. (2023). Setting the research agenda of the eSports revolution. *Journal of Global Sport Management*, *8*(2), 455–459. https://doi.org/10.1080/24704067.2023.2201588
16. Caillois, R. (2001). *Man, play, and games*. University of Illinois Press.
17. Campbell, M. J., Toth, A. J., Moran, A., Kowal, M. & Exton, C. (2018). ESports: a new window on neurocognitive expertise? In *Progress in Brain Research* (S. 161–174). https://doi.org/10.1016/bs.pbr.2018.09.006
18. Carrington, B. & McDonald, I. (2008). *Marxism, cultural studies and sport*. Routledge.
19. Chadwick, S., Burton, N., Widdop, P. & Bond, A. J. (2023). Networks, strategy and sport: The case of City Football Group. *Journal of Strategy and Management*. https://doi.org/10.1108/jsma-01-2022-0015
20. Cheng, C., Cheung, M. W. & Wang, H. (2018). Multinational comparison of internet gaming Disorder and Psychosocial Problems versus Well-being: Meta-analysis of 20 countries. *Computers in Human Behavior*, *88*, 153–167. https://doi.org/10.1016/j.chb.2018.06.033
21. Chung, T., Sum, S., Chan, M., Lai, E. & Cheng, N. (2019). Will esports result in a higher prevalence of problematic gaming? A review of the global situation. *Journal of behavioral addictions*, *8*(3), 384–394. https://doi.org/10.1556/2006.8.2019.46
22. Claussen, M. C. (2022). Sportpsychiatrie und -Psychotherapie im Breitensport. *Praxis*, *111*(6), 315–316. https://doi.org/10.1024/1661-8157/a003864
23. Coppinger, R. & Feinstein, M. (2018). *Die Ethologie der Hunde: Wissenschaftliche Grundlagen zum Verhalten*. Kynos Verlag.
24. Crowther, N. B. (2004). The state of the modern Olympics: citius, Altius, fortius? *European Review*, *12*(3), 445–460. https://doi.org/10.1017/s1062798704000377
25. Cunningham, G. B., Fairley, S., Ferkins, L., Kerwin, S., Lock, D., Shaw, S. & Wicker, P. (2018). ESport: Construct Specifications and implications for sport management. *Sport Management Review*, *21*(1), 1–6. https://doi.org/10.1016/j.smr.2017.11.002
26. Czegledy, P. K. (2021). eSports Integrity Policies. *Gaming law review*, *25*(4), 161–170. https://doi.org/10.1089/glr2.2020.0017
27. De Freitas, S. & Oliver, M. (2006). How can exploratory learning with games and simulations within the curriculum be most effectively evaluated? *Computers & Education*, *46*(3), 249–264. https://doi.org/10.1016/j.compedu.2005.11.007
28. Decker, W. (1987). *Sport und Spiel im alten Ägypten*. Verlag C. H. Beck.
29. Diem, C. (1969). *Wesen und Lehre des Sports und der Leibeserziehung* (2. Aufl.). Weidmann.
30. Diem, C. (1982). *Ausgewählte Schriften: zur Begründung von Sport und Sporterziehung*. University of Michigan.
31. DiFrancisco-Donoghue, J. & Balentine, J. (2018). Collegiate eSport: Where do we fit in? *Current Sports Medicine Reports*, *17*(4), 117–118. https://doi.org/10.1249/jsr.0000000000000477
32. Dixon, A. K., Fisch, H., Huber, C. & Walser, A. L. (1989). Ethological studies in animals and man, their use in psychiatry. *Pharmacopsychiatry*, *22*(S 1), 44–50. https://doi.org/10.1055/s-2007-1014624
33. Dodig-Crnković, G. & Larsson, T. (2005). Game Ethics - Homo Ludens as a computer game designer and consumer. *International review of information ethics*, *4*, 19–23. https://doi.org/10.29173/irie164
34. Dörfler, T. & Rothfuß, E. (2023). „Just Human" – eine phänomenologische und philosophisch-anthropologische Perspektive auf unser leibliches Mensch-Umwelt-Verhältnis. *Geographica Helvetica*, *78*(2), 223–240. https://doi.org/10.5194/gh-78-223-2023

35. Dudda, F. (2007). Gettier-Beispiele und eine Gebrauchsdefinition des Begriffs des propositionalen Wissens. *Facta Philosophica*, *9*(1), 161–176. https://doi.org/10.3726/93525_161

36. Emara, A. K., Ng, M., Cruickshank, J., Kampert, M. W., Piuzzi, N. S., Schaffer, J. & King, D. (2020). Gamer's Health Guide: Optimizing performance, recognizing hazards, and Promoting wellness in esports. *Current Sports Medicine Reports*, *19*(12), 537–545. https://doi.org/10.1249/jsr.0000000000000787

37. Eskelinen, M. (2001). Towards computer game studies. *Digital Creativity*, *12*(3), 175–183. https://doi.org/10.1076/digc.12.3.175.3232

38. Fiedler, A. (2019). *Jagdverhalten verstehen, kontrollieren, ausgleichen: Wege in den Freilauf*. Kosmos.

39. Fischer, R. P. (2015). Definitions and determination of crop yield, yield gaps, and of rates of change. *Field Crops Research*, *182*, 9–18. https://doi.org/10.1016/j.fcr.2014.12.006

40. Florschütz, G. (2015). *Sport in Film und Fernsehen: Zwischen Infotainment und Spektakel*. Springer-Verlag.

41. Fogt, J. S., Oñate, J. A., Emerson, A., Kraemer, W. J. & Fogt, N. (2021). Visual and ocular characteristics of eSports participants. *Optometry and Vision Science*, *98*(7), 771–776. https://doi.org/10.1097/opx.0000000000001725

42. Frank, K. (2015). Vermittlung und Rezeption von religiösem und säkularem Wissen im schulischen Religionsunterricht. *Zeitschrift für Religionskunde*, *1/2015*, 43–61. https://doi.org/10.26034/fr.zfrk.2015.003

43. Frías, F. J. L. (2022). Esports anti-doping advocates and their strange bedfellow: a matter of integrity and sport ethics. *Performance Enhancement & Health*, *10*(1), 100216. https://doi.org/10.1016/j.peh.2021.100216

44. Frick, B. & Ahlert, G. (2005). Ökonomie des Breitensports. In *Hofmann eBooks*. http://ci.nii.ac.jp/ncid/BA81673894

45. Funk, D. C., Pizzo, A. D. & Baker, B. J. (2018). ESport Management: Embracing eSport education and research opportunities. *Sport Management Review*, *21*(1), 7–13. https://doi.org/10.1016/j.smr.2017.07.008

46. García-Lanzo, S. & Chamarro, A. (2021). Basic psychological needs, passion and motivations in amateur and semi-professional eSports players. *Aloma*, *36*(2), 59–68. https://doi.org/10.51698/aloma.2018.36.2.59-68

47. Giakoni-Ramírez, F., Duclos-Bastías, D. & Yáñez-Sepúlveda, R. (2021). Professional esports players are not obese: Analysis of body composition based on years of experience. *International Journal of Morphology*, *39*(4), 1081–1087. https://doi.org/10.4067/s0717-95022021000401081

48. Giakoni-Ramírez, F., Merellano-Navarro, E. & Duclos-Bastías, D. (2022). Professional Esports players: motivation and physical activity levels. *International Journal of Environmental Research and Public Health*, *19*(4), 2256. https://doi.org/10.3390/ijerph19042256

49. Gilardi, F. & Martin, P. (2023). *Esports in the Asia-Pacific: Ecosystem, Communities, and Identities*. Springer Nature.

50. Gordon, P. E., Hammer, E. & Pensky, M. (2020). *A companion to Adorno*. John Wiley & Sons.

51. Gruneau, R. (2018). *Sport and modernity*. John Wiley & Sons.

52. Grupe, O., Kurz, D. & Teipel, M. (2012). *The scientific view of sport: Perspectives, Aspects, Issues*. Springer Science & Business Media.

53. Hallmann, K. & Giel, T. (2018). ESports – competitive sports or recreational activity? *Sport Management Review*, *21*(1), 14–20. https://doi.org/10.1016/j.smr.2017.07.011

54. Hamari, J. & Sjöblom, M. (2017). What is eSports and why do people watch it? *Internet Research*, *27*(2), 211–232. https://doi.org/10.1108/intr-04-2016-0085

55. Hayhurst, L. M., Thorpe, H. & Chawansky, M. (2021). Introducing sport, gender and development: a critical intersection. In *Emerald Publishing Limited eBooks* (S. 1–32). https://doi.org/10.1108/978-1-83867-863-020211001

56. Hedlund, D. P., Fried, G. & Smith, R. (2020). *Esports Business Management*. Human Kinetics.

57. Hendrikx, M., Meijer, S., Van Der Velden, J. & Iosup, A. (2013). Procedural content generation for games. *ACM Transactions on Multimedia Computing, Communications, and Applications*, *9*(1), 1–22. https://doi.org/10.1145/2422956.2422957

58. Henne, K. E. (2015). *Testing for athlete citizenship: Regulating Doping and Sex in Sport*. Rutgers University Press.

59. Herzog, M. & Brändle, F. (2015). *Europäischer Fußball im Zweiten Weltkrieg*. Kohlhammer Verlag.

60. Hilvert-Bruce, Z., Neill, J. T., Sjöblom, M. & Hamari, J. (2018). Social motivations of live-streaming viewer engagement on Twitch. *Computers in Human Behavior*, *84*, 58–67. https://doi.org/10.1016/j.chb.2018.02.013

61. Himmelstein, D., Liu, Y. & Shapiro, J. L. (2017). An exploration of mental skills among competitive League of Legend players. *International Journal of Gaming and Computer-mediated Simulations*, *9*(2), 1–21. https://doi.org/10.4018/ijgcms.2017040101

62. Hodge, V. J., Devlin, S., Sephton, N., Block, F., Cowling, P. I. & Drachen, A. (2021). Win prediction in multiplayer esports: Live Professional Match Prediction. *IEEE transactions on games*, *13*(4), 368–379. https://doi.org/10.1109/tg.2019.2948469

63. Hudd, E. (2020). *Gaming Careers in esports*. ABDO.

64. Huizinga, J. (1951). Homo Ludens: A Study of the Play-Element in Culture. *American Sociological Review*, *16*(2), 274. https://doi.org/10.2307/2087716

65. Huizinga, J. (1998). *Homo Ludens*. Taylor & Francis.

66. Irwin, S. V., Naweed, A. & Lastella, M. (2021). The Mind Games have already started: an in-depth examination of trash talking in Counter-Strike: Global Offensive Esports using Practice Theory. *Journal of Gaming & Virtual Worlds*, *13*(2), 173–194. https://doi.org/10.1386/jgvw_00035_1

67. Iwatsuki, T., Hagiwara, G. & Dugan, M. E. (2021). Effectively optimizing esports performance through movement science principles. *International Journal of Sports Science & Coaching*, *17*(1), 202–207. https://doi.org/10.1177/17479541211016927

68. Jagoda, P. (2018). Digital games and narrative. In *Cambridge University Press eBooks* (S. 231–247). https://doi.org/10.1017/9781108639149.017

69. Jagoda, P. & Malkowski, J. (2022). Introduction: American Game Studies. *American Literature*, *94*(1), 1–16. https://doi.org/10.1215/00029831-9696959

70. Jarvis, L. (2019). Narrative as Virtual Reality 2: Revisiting immersion and interactivity in literature and electronic media. *International Journal of Performance Arts and Digital Media*, *15*(2), 239–241. https://doi.org/10.1080/14794713.2019.1637100

71. Jekauc, D. (2018). Emotionen im Sport. *Zeitschrift Fur Sportpsychologie*, *25*(2), 51–52. https://doi.org/10.1026/1612-5010/a000229

72. Jenny, S. E., Manning, R. D., Keiper, M. C. & Olrich, T. W. (2016). Virtual(ly) Athletes: Where eSports fit within the definition of "Sport". *Quest*, *69*(1), 1–18. https://doi.org/10.1080/00336297.2016.1144517

73. Johnson, R. B. & Onwuegbuzie, A. J. (2004). Mixed Methods research: a research paradigm whose time has come. *Educational Researcher*, *33*(7), 14–26. https://doi.org/10.3102/0013189x033007014

74. Jörissen, B. (2018). Subjektivation und ästhetische Bildung in der post-digitalen Kultur. *Vierteljahrsschrift für wissenschaftliche Pädagogik (1950)*, *94*(1), 51–70. https://doi.org/10.30965/25890581-09401006

75. Karhulahti, V. (2020). *Esport Play: Anticipation, Attachment, and Addiction in Psycholudic Development*. Bloomsbury Publishing USA.

76. Kari, T., Siutila, M. & Karhulahti, V. (2019). An extended study on training and physical exercise in esports. In *Advances in game-based learning book series* (S. 270–292). https://doi.org/10.4018/978-1-5225-7461-3.ch010

77. King, D. L., Delfabbro, P. & Griffiths, M. D. (2009). Video game structural characteristics: A new psychological taxonomy. *International Journal of Mental Health and Addiction*, *8*(1), 90–106. https://doi.org/10.1007/s11469-009-9206-4

78. Kirkpatrick, G. (2007). Between Art and gameness: Critical Theory and computer game aesthetics. *Thesis Eleven*, *89*(1), 74–93. https://doi.org/10.1177/0725513607076134

79. Klose, S. & Schöber, T. (2023). *Marketing im E-Sport: Das 4C Framework und Optionen zur Vermarktung in der Welt des elektronischen Sports*. Meyer & Meyer.

80. Kron, T. (2020). Gewalt und emotionale Energie. *Österreichische Zeitschrift Für Soziologie*, *45*(S1), 113–134. https://doi.org/10.1007/s11614-020-00411-2

81. Krüger, M. (2001). *Olympische Spiele: Bilanz und Perspektiven im 21. Jahrhundert*. LIT Verlag Münster.

82. Krüger, M. (2004). Adorno, der Sport und dieKritische Sporttheorie. *German Journal of Exercise and Sport Research*, *34*(1), 21–32. https://doi.org/10.1007/bf03176386

83. Lam, K. H. (2018). Why "is at"? —On Quine's objection to Carnap's Aufbau in "Two Dogmas of Empiricism". *The journal for the history of analytical philosophy*. https://doi.org/10.15173/jhap.v6i4.3018

84. Lankoski, P., Björk, S. & Al, E. (2015). *Game Research Methods: An Overview*. Lulu.com.

85. Lee, S., Bonnar, D., Roane, B. M., Gradisar, M., Dunican, I. C., Lastella, M., Maisey, G. & Suh, S. (2021). Sleep Characteristics and Mood of Professional Esports Athletes: A Multi-National Study. *International Journal of Environmental Research and Public Health*, *18*(2), 664. https://doi.org/10.3390/ijerph18020664

86. Lin, S., Xu, Z. & Xie, Z. (2023). Cultural Diversity in semi-virtual Teams: A multicultural Esports Team study. *Journal of International Business Studies*, *54*(4), 718–730. https://doi.org/10.1057/s41267-023-00611-4

87. Liu, Z., Leng, Y., Wang, M. & Lin, C. (2020). Named Entity recognition and named entity linking on esports contents. *Computer Science and Information Systems (FedCSIS), 2019 Federated Conference on*. https://doi.org/10.15439/2020f24

88. Lynch, A. (2015). *Religio athletae*. Palala Press.

89. Macey, J. & Hamari, J. (2018). Investigating relationships between video gaming, spectating esports, and gambling. *Computers in Human Behavior*, *80*, 344–353. https://doi.org/10.1016/j.chb.2017.11.027

90. Maestripieri, D. (2012). *Games Primates play: An Undercover Investigation of the Evolution and Economics of Human Relationships*. Hachette UK.

91. Malliet, S. (2006). An exploration of adolescents' perceptions of videogame realism. *Learning, Media and Technology*, *31*(4), 377–394. https://doi.org/10.1080/17439880601021983

92. Manhart, S. & Wendt, T. (2020). Komplexe Organisation und organisierte Komplexität. Die Pädagogik partizipativer Organisationsgestaltung im Zeitalter des Populismus. *Zeitschrift für Weiterbildungsforschung*, *43*(3), 377–393. https://doi.org/10.1007/s40955-020-00169-w

93. Mao, E. (2021). The structural characteristics of esports gaming and their behavioral implications for high Engagement: a competition perspective and a cross-cultural examination. *Addictive Behaviors*, *123*, 107056. https://doi.org/10.1016/j.addbeh.2021.107056

94. Martin-Niedecken, A. L. & Schättin, A. (2020). Let the Body'n'Brain Games begin: toward innovative training approaches in eSports athletes. *Frontiers in Psychology*, *11*. https://doi.org/10.3389/fpsyg.2020.00138

95. Matsumoto, A. & Szidarovszky, F. (2015). *Game Theory and its applications*. Springer.

96. McDonald, P. D. (2019). The principle of division in Roger Caillois's Man, play and games. *Games and Culture*, *15*(8), 855–873. https://doi.org/10.1177/1555412019853080

97. Messing, S., Forberger, S., Woods, C., Abu-Omar, K. & Gelius, P. (2021). Politik zur Bewegungsförderung in Deutschland. *Bundesgesundheitsblatt - Gesundheitsforschung - Gesundheitsschutz*, *65*(1), 107–115. https://doi.org/10.1007/s00103-021-03403-z

98. Mestre, A. M. (2023). Sport, human rights and the legacy of Pierre de Coubertin. *International Academic Journal on Olympic Studies, 6* (2022).

99. Mittler, G. (2009). Die steuerliche Förderung des Sports aus politischer Sicht. In *Edition HWWI* (S. 99–108). https://doi.org/10.15460/hup.214.1584

100. Mohr, T. (1998). *Medizinische Versorgung im Brieftaubensport: Vorsorge - Therapie - Vitamine - Doping*. Georg Thieme Verlag.

101. Morgan, W. J. (1988). Adorno on Sport. *Theory and Society*, *17*(6), 813–838. https://doi.org/10.1007/bf00161728

102. Morgan, W. J. (2022). *Leftist theories of sport: A Critique and Reconstruction*. University of Illinois Press.

103. Müller, K. W. (2010). *Das Gewissen in Kultur und Religion*. VTR Publications.

104. Nagorsky, E. & Wiemeyer, J. (2020). The structure of performance and training in esports. *PLOS ONE*, *15*(8), e0237584. https://doi.org/10.1371/journal.pone.0237584

105. Nicks, E. (2020). *College esports*. ABDO.

106. Nitsch, V., Schmidt, J. C., Gethmann, C. F., Buxmann, P., Distelrath, J., Spiecker, I., Lingner, S. & Humm, B. G. (2022). Künstliche Intelligenz in der Forschung. In *Wissenschaftsethik und Technikfolgenbeurteilung*. https://doi.org/10.1007/978-3-662-63449-3

107. Paravizo, E. & De Souza, R. L. R. (2018). Playing for Real: An exploratory analysis of professional esports athletes' work. In *Advances in intelligent systems and computing* (S. 507–515). https://doi.org/10.1007/978-3-319-96077-7_54

108. Parry, J. (2018). E-sports are not sports. *Sport, Ethics and Philosophy*, *13*(1), 3–18. https://doi.org/10.1080/17511321.2018.1489419

109. Parry, J. (2021). Esports will not be at the Olympics. *Journal of Olympic studies*, *2*(2), 1–13. https://doi.org/10.5406/jofolympstud.2.2.0001

110. Parry, J., Robinson, S., Watson, N. & Nesti, M. (2007). *Sport and spirituality: An Introduction*. Routledge.

111. Pellegrini, A. D. (2009). *The role of play in human development*. Oxford University Press, USA.

112. Pereira, A. M., Brito, J., Figueiredo, P. & Verhagen, E. (2019). Virtual sports deserve real sports medical attention. *BMJ open sport and exercise medicine*, *5*(1), e000606. https://doi.org/10.1136/bmjsem-2019-000606

113. Peša, A. R., Čičin-šain, D. & Blažević, T. (2017). NEW BUSINESS MODEL IN THE GROWING E-SPORTS INDUSTRY. *Poslovna izvrsnost*, *11*(2), 121–131. https://doi.org/10.22598/pi-be/2017.11.2.121

114. Pluss, M. A., Bennett, K. J., Novak, A. R., Panchuk, D., Coutts, A. J. & Fransen, J. (2019). Esports: the chess of the 21st century. *Frontiers in Psychology*, *10*. https://doi.org/10.3389/fpsyg.2019.00156

115. Popper, K. R. (2002). *Karl Poppers Kritischer Rationalismus heute: zur Aktualität kritisch-rationaler Wissenschaftstheorie*. Mohr Siebeck.

116. Poulus, D., Coulter, T. J., Trotter, M. G. & Polman, R. (2021). A qualitative analysis of the perceived determinants of success in elite esports athletes. *Journal of Sports Sciences*, *40*(7), 742–753. https://doi.org/10.1080/02640414.2021.2015916

117. Preuß, H., Schallhorn, C. & Schütte, N. (2022). *Olympic Sport organisations in times of crisis and change*. https://doi.org/10.5771/9783985720644

118. Prokop, U. (1971). *Soziologie der Olympischen Spiele: Sport und Kapitalismus*.

119. Purnomo, S. L. A., Purnama, S. L. S., Untari, L., Wibowo, A., Aqib, N. & Oktaviana, Y. V. (2022). Ludic taunting: Does taunting work differently in video games? *Journal of Language and Literature*, *22*(2), 466–480. https://doi.org/10.24071/joll.v22i2.4197

120. Qian, T. Y., Zhang, J. J., Wang, J. J. & Hulland, J. (2019). Beyond the game: Dimensions of esports online spectator demand. *Communication & Sport*, *8*(6), 825–851. https://doi.org/10.1177/2167479519839436

121. Reitman, J., Anderson-Coto, M. J., Wu, M., Lee, J. S. & Steinkuehler, C. (2019). Esports Research: A Literature Review. *Games and Culture*, *15*(1), 32–50. https://doi.org/10.1177/1555412019840892

122. Riatti, P. & Thiel, A. (2023). The Role of the Body in Electronic Sport: A scoping review. *German Journal of Exercise and Sport Research*, *53*(4), 369–383. https://doi.org/10.1007/s12662-023-00880-z

123. Richard, J., Ivoska, W. & Derevensky, J. L. (2021). Towards an understanding of Esports Gambling: Demographic and clinical characteristics of youth esports bettors. *Gaming law review*, *25*(10), 426–434. https://doi.org/10.1089/glr2.2021.0013

124. Richter, P., Müller, J. & Nerurkar, M. (2018). *Möglichkeiten der Reflexion: Festschrift für Christoph Hubig*. Nomos Verlag.

125. Rigauer, B. (1969). *Sport und Arbeit: Soziologische Zussamenhänge und ideologische implikationen*. Suhrkamp Verlag.

126. Rigauer, B. (2022). *Das Spiel des Sports: Ein soziologischer Entwurf*. Velbrück Wissenschaft.

127. Rogers, R. (2019). *Understanding esports: An Introduction to the Global Phenomenon*. Rowman & Littlefield.

128. Roman-Hauduroy, M. (2019). Ubiquitous computing et métamorphoses de la science sondagière. *Interfaces numériques*, *1*(1). https://doi.org/10.25965/interfaces-numeriques.241

129. Roose, K. M. & Veinott, E. S. (2020). Leveling up: using the Tracer method to address training needs for esports players. *Proceedings of the Human Factors and Ergonomics Society Annual Meeting*, *64*(1), 1780–1784. https://doi.org/10.1177/1071181320641430

130. Rothwell, G. & Shaffer, M. L. (2019). ESports in K-12 and Post-Secondary schools. *Education Sciences*, *9*(2), 105. https://doi.org/10.3390/educsci9020105

131. Sauer, A. (2019). *ESport, Netzwerkeffekte und Lindahl-Preise*. Springer-Verlag.

132. Sayers, S. (2003). Creative activity and alienation in Hegel and Marx. *Historical Materialism*, *11*(1), 107–128. https://doi.org/10.1163/156920603321624758

133. Schiller, K. & Young, C. (2010). *The 1972 Munich Olympics and the making of modern Germany*. University of California Press.

134. Schmitt, M. (2013). *From Taxonomy to Phylogenetics – Life and work of Willi Hennig*. BRILL.

135. Schmitz, F. (2018). Sport. In *J.B. Metzler eBooks* (S. 269–272). https://doi.org/10.1007/978-3-476-05402-9_45

136. Scholz, T. (2020). Deciphering the world of eSports. *International Journal on Media Management*, *22*(1), 1–12. https://doi.org/10.1080/14241277.2020.1757808

137. Schraffl, I. (2014). *Opera Buffa und Spielkultur : eine spieltheoretische Untersuchung am Beispiel des venezianischen Repertoires des späten 18. Jahrhunderts*. https://doi.org/10.26530/oapen_507998

138. Schrier, K. & Gibson, D. (2010). *Ethics and Game Design: Teaching values through play: Teaching Values through Play*. IGI Global.

139. Schroll, S. & Dehasse, J. (2015). *Verhaltensmedizin bei der Katze: Leitsymptome, Diagnostik, Therapie und Prävention*. Georg Thieme Verlag.

140. Schürmann, V. (2016). Das Maß des Sports. *Zeitschrift für praktische Philosophie*, *3*(2), 55–90. https://doi.org/10.22613/zfpp/3.2.3

141. Segets, M. (2020). *Einführung in die funktionale Sportethik und ihre Problemfelder*. Lehmanns Media.

142. Seo, Y. (2016). Professionalized consumption and identity transformations in the field of eSports. *Journal of Business Research*, *69*(1), 264–272. https://doi.org/10.1016/j.jbusres.2015.07.039

143. Seo, Y. & Jung, S. (2016). Beyond solitary play in computer games: the social Practices of eSports. *Journal of Consumer Culture*, *16*(3), 635–655. https://doi.org/10.1177/1469540514553711

144. Simkins, D. & Steinkuehler, C. (2008). Critical ethical reasoning and Role-Play. *Games and Culture*, *3*(3–4), 333–355. https://doi.org/10.1177/1555412008317313

145. Sjöblom, M., Törhönen, M., Hamari, J. & Macey, J. (2019). The ingredients of Twitch streaming: Affordances of game streams. *Computers in Human Behavior*, *92*, 20–28. https://doi.org/10.1016/j.chb.2018.10.012

146. Soll, C. (2021). *Die Strafbarkeit von Wettbewerbsmanipulationen im E-Sport unter besonderer Berücksichtigung des Sportwettbetrugs nach § 265c StGB*. utzverlag GmbH.

147. Spaaij, R. (2009). The social impact of sport: diversities, complexities and contexts. *Sport in Society*, *12*(9), 1109–1117. https://doi.org/10.1080/17430430903137746

148. Stewart, P. J. & Strathern, A. J. (2021). *The Palgrave Handbook of Anthropological Ritual Studies*. Springer Nature.

149. Stradling, J. (2009). *More than a game: When Sport and History Collide*. Allen & Unwin.

150. Ströh, J. H. A. (2017). *The eSports market and eSports sponsoring*. https://doi.org/10.5771/9783828866485

151. Sung, M. & Umar, W. (2020). A new industry and tax base on taxing esports in Indonesia. *Jurnal Media Hukum*, *27*(2). https://doi.org/10.18196/jmh.20200148

152. Székely, T., Moore, A. J. & Komdeur, J. (2010). *Social behaviour: Genes, Ecology and Evolution*. Cambridge University Press.

153. Tamir, I., Limor, Y. & Galily, Y. (2014). Sports: Faster, higher, stronger, and public relations. *Human Affairs*, *25*(1), 93–109. https://doi.org/10.1515/humaff-2015-0008

154. Taylor, T. L. (2009). The assemblage of play. *Games and Culture*, *4*(4), 331–339. https://doi.org/10.1177/1555412009343576

155. Tekinbas, K. S. & Zimmerman, E. (2003). *Rules of play: Game Design Fundamentals*. MIT Press.

156. Thiel, A. & John, J. M. (2018). Is eSport a 'real' sport? Reflections on the spread of virtual competitions. *European Journal for Sport and Society*, *15*(4), 311–315. https://doi.org/10.1080/16138171.2018.1559019

157. Thomas, C. J., Rothschild, J., Earnest, C. P. & Blaisdell, A. P. (2019). The effects of energy drink consumption on cognitive and physical performance in elite League of Legends players. *Sports*, *7*(9), 196. https://doi.org/10.3390/sports7090196

158. Tiell, B. & Cebula, K. (2020). *Governance in sport: Analysis and Application*. Human Kinetics Publishers.

159. Toth, A. J., Ramsbottom, N., Constantin, C., Milliet, A. & Campbell, M. J. (2021). The effect of expertise, training and neurostimulation on sensory-motor skill in esports. *Computers in Human Behavior*, *121*, 106782. https://doi.org/10.1016/j.chb.2021.106782

160. Troupe, T. K. (2019). *Fighting Game Esports: The Competitive Gaming World of Super Smash Bros., Street Fighter, and More! Wide World of Esports.* Capstone PR.

161. Van Hilvoorde, I. & Pot, N. (2016). Embodiment and fundamental motor skills in eSports. *Sport, Ethics and Philosophy*, *10*(1), 14–27. https://doi.org/10.1080/17511321.2016.1159246

162. Vargas-Olarte, C. E. (2020). ESport como factor económico. *Librempresa*, *17*(1), 63–92. https://doi.org/10.18041/1657-2815/librempresa.2020v17n1.7127

163. Verret, V. (2018). *High school ESports: An Activity Book for Players and Coaches*. Dave Burgess Consulting.

164. Vindigni, G. (2020). *Organisation and management of information processes in the German games industry: The Significance of Customer Review and Recommender Systems for the Innovation Process in the German Games Industry*. Amazon Fulfillment (KDP).

165. Vindigni, G. (2021). *Integrativer Wissenstransfer in der Games- und Kreativwirtschaft*. Amazon Fulfillment (KDP).

166. Vindigni, G. (2023a). Internet-Based Lifelong Learning: Implications for language teaching and semiotic structure principles in media sociology and religion sociology. *Archives of Business Research*, *11*(4), 162–170. https://doi.org/10.14738/abr.114.14575

167. Vindigni, G. (2023b). Eclectic-Procedural innovation Management approach with regard to community management within the German-Language gaming industry. *Transactions on Machine Learning and Artificial Intelligence*, *11*(2), 93–131. https://doi.org/10.14738/tecs.112.14607

168. Vindigni, G. (2023c). Exploring Digital Therapeutics: Game-Based and eHealth Interventions in Mental Health Care: Potential, challenges, and Policy implications. *Journal of Biomedical Engineering and Medical Imaging*, *10*(3), 177–204. https://doi.org/10.14738/bjhmr.103.14804

169. Vindigni, G. (2023d). Decoding Cultural Affinity in Video Games: An examination of narrative expression, visual aesthetics, and interactive design in the digital era. *Advances in Social Sciences Research Journal*, *10*(6), 290–305. https://doi.org/10.14738/assrj.106.14911

170. Vindigni, G. (2023e). Adaptive and re-adaptive pedagogies in Higher Education: A comparative, longitudinal study of their impact on professional competence development across diverse curricula. *European Journal of Theoretical and Applied Sciences*, *1*(4), 718–743. https://doi.org/10.59324/ejtas.2023.1(4).66

171. Vindigni, G. (2023f). An interdisciplinary study on generative AI: exploring its efficacy in mental health interventions within the gaming ecosystem. *Journal of Biomedical Engineering and Medical Imaging*, *10*(4), 30–61. https://doi.org/10.14738/bjhmr.104.15114

172. Vinnai, G. (1970). Fussballsport als Ideologie. *PsychArchives, 11* (22). https://doi.org/10.23668/psycharchives.10360

173. Ward, M. R. & Harmon, A. D. (2019). ESport Superstars. *Journal of Sports Economics*, *20*(8), 987–1013. https://doi.org/10.1177/1527002519859417

174. Weber-Jonkheer, R. E. F. & Zárate, A. V. (2009). Bewertung von Wohlbefinden in der praktischen Nutztierhaltung – Diskussion der Kriterienauswahl am Beispiel Mastschweinehaltung. *Archiv für Tierzucht*, *52*(4), 378–394. https://doi.org/10.5194/aab-52-378-2009

175. Willimczik, K. (2019). ESport „ist" nicht Sport – eSport und Sport haben Bedeutungen. *German Journal of Exercise and Sport Research*, *49*(1), 78–90. https://doi.org/10.1007/s12662-019-00569-2
176. Wilson, M. (2023). *Esports World: The Ultimate Guide to Competitive Video Gaming*. Adidas Wilson.
177. Wulf, C. (2014). Rituale Spiel, Mimesis, Performativität. In *Brill / Schöningh eBooks* (S. 99–127). https://doi.org/10.30965/9783657776030_005
178. Wulf, C. (2022). Human beings and their images. In *Bloomsbury Publishing Plc eBooks*. https://doi.org/10.5040/9781350265165
179. Xu, Y. (2023). The evolving eSports landscape: technology empowerment, intelligent embodiment, and digital ethics. *Sport, Ethics and Philosophy*, *17*(3), 356–368. https://doi.org/10.1080/17511321.2023.2168039
180. Zaman, B., Van Mechelen, M., De Cock, R. & Huyghe, J. (2020). Perceptions of and exposure to games of chance, gambling, and video gaming: Self-Reports of Preadolescents and Parents. *Journal of Gambling Issues*, *46*. https://doi.org/10.4309/jgi.2021.46.13
181. Zdunek, A. (2013). *Ontologie, Wahrheit und Kausalität: Ontologische Theorien der Kausalität vor dem Hintergrund der Verteidigung von Ontologie als Kategorientheorie*. Walter de Gruyter.
182. Zeyringer, K. (2016). *Olympische Spiele. Eine Kulturgeschichte von 1896 bis heute: Band 1: Sommer*. S. Fischer Verlag.