

A Study on the Economic Effects of Copyright Protection and Industrial Innovation in Black Myth: Wukong

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Abstract. As a multifaceted form of the so-called “ninth art,” video games have long faced legal ambiguity in the copyright protection of their non-textual elements. With the success of Black Myth: Wukong and the emergence of imitation controversies, China’s current disaggregated protection model under the Copyright Law can cover specific content but remains insufficient in safeguarding abstract design concepts and interactive layouts. This shortfall has contributed to the widespread phenomenon of “reskinned” games, posing a serious threat to industrial innovation. Taking Black Myth: Wukong as a case study and drawing upon the copyright protection practices in the UK and the US, this paper adopts a quantitative research method to uncover the driving mechanisms behind piracy. The findings indicate that economic pressure is the primary driver of piracy, while copyright awareness and the quality of pirated game experiences significantly influence consumers’ willingness to purchase legitimate copies. Based on these findings, this paper proposes a multidimensional optimization strategy: first, clarifying the legal status of video games as audiovisual works and establishing a dual-attribute protection framework; second, refining the standards that distinguish ideas from expressions and reinforcing originality requirements to prevent overbroad protection; third, promoting diversified intellectual property protections to build a robust IP “moat”; and fourth, creating legitimate content-sharing platforms that implement limited-time trials, reward-based point systems, and limited-edition collectible sets to form a defense ecosystem integrating experience, social interaction, and collection. These differentiated strategies aim to offset the appeal of piracy-driven sharing economies. By aligning legal improvements with industrial innovation, this paper offers both theoretical insights and practical approaches for balancing game copyright protection and industrial innovation, thereby contributing to the sustainable development of China’s digital content industry.

Keywords: Black Myth: Wukong, copyright protection, industrial innovation

1. Introduction

As the “ninth art,” video games integrate various elements such as literature, music, and visual arts. Non-textual elements play a crucial role in delivering immersive experiences and have increasingly drawn scholarly and legal attention. Elements such as artistic style, animation effects, and gameplay mechanics often fall into a legal grey area due to their abstract and complex nature. In

contrast, specific visual and musical works are clearly protected by copyright law, while abstract elements remain difficult to define, making the scope of protection ambiguous. The success of *Black Myth: Wukong* has once again highlighted this issue. Based on *Journey to the West*, the game creatively reconstructs its source material and incorporates a distinctive artistic style and innovative gameplay structure. However, subsequent imitation has proven difficult to combat under the current copyright framework, revealing its inadequacies.

Globally, the copyright protection experiences of the UK and the US offer valuable insights. The UK's Copyright, Designs and Patents Act emphasises the distinction between ideas and expressions, while the US Copyright Act employs the “substantial similarity” test to broaden the scope of protection. These two approaches differ significantly in application. How to balance these models to suit China's gaming industry is an urgent issue. China's current copyright law does not clearly define the legal status of video games as a whole; in practice, a disaggregated protection model is commonly adopted, which proves insufficient in addressing the problem of “reskinned” games. In recent years, some courts have attempted to classify games as audiovisual works, but the scope and standards of protection remain unclear.

This study aims to explore the copyright protection pathways for non-textual elements in video games. Taking *Black Myth: Wukong* as a case study and drawing on international experience, it proposes a protection system suitable for China and provides both theoretical and practical support for innovation in the gaming industry.

2. Literature review

2.1. Current status of copyright protection for non-textual elements in Chinese video games

China's Copyright Law (as amended in 2020) affirms the principles of originality and the non-protection of ideas, yet does not explicitly define video games as a specific type of work. In practice, the law often adopts a segmented protection approach, separating a game into its component parts—such as program code (protected as software works), visual assets (as artistic works), and music and sound effects (as musical works). The overall sequence of in-game visuals may be analogised to audiovisual works. For example, in the 2003 *Legend series* case, the 2010 *MU Online vs. Myth of Mir* case, and the more recent *Honor of Kings* case, courts granted holistic protection of visual sequences by analogy to audiovisual works. However, due to the absence of explicit statutory provisions, disaggregated protection remains the mainstream approach. The copyright dilemma surrounding non-textual elements primarily stems from legal grey areas. On one hand, such elements—like gameplay rules, mechanics, and abstract visual styles—are often regarded as ideas or functional components, or are derived from the public domain (e.g., mythology, history), making their protection scope unclear under traditional copyright principles [1]. On the other hand, the line between ideas and expressions remains blurred. For instance, in Tencent's lawsuit involving *Rise of Kingdoms vs. Commander* (case no. (2023) Yue Min Zhong 4326), the court ruled that “gameplay does not constitute expression,” and focused on comparing concrete expressions (such as character design and scene art), while excluding abstract design concepts (such as interface logic) from protection. In another example, a NetEase lawsuit against a mobile game found that while the interface layout was deemed a functional idea not subject to protection, the replication of interface art elements—such as colours and patterns—constituted infringement. In addition, the originality of non-textual elements remains contentious. When public domain content is adapted (e.g., the character of Sun Wukong in *Black Myth: Wukong*, derived from *Journey to the West*), the originality threshold for derivative works must be evaluated, but standards vary: UK law requires

“independent skill and judgement,” whereas US law only requires a “modicum of creativity.” As a result, certain elements—such as functional 3D models—may fall short of protection due to insufficient originality [2,3]. Although the current disaggregated model can cover clearly identifiable materials (such as visuals and music), it struggles to prevent imitation of holistic design concepts, interactive layouts, and visual styles. Moreover, in judicial practice, infringement standards vary—some courts rely on itemised comparison, while others assess overall impression—exacerbating uncertainty in the industry. Furthermore, the law must strike a balance between protection and innovation. Overprotection may lead to monopolisation of foundational design elements (e.g., dark fantasy aesthetics), stifling further creativity. Conversely, underprotection enables “reskinned games” to avoid infringement by merely altering surface-level features (as seen in imitation cases of *Black Myth: Wukong*). In practice, Article 6 of the Anti-Unfair Competition Law is often invoked to regulate acts of confusion (such as name or packaging imitation), but its application requires the existence of competitive relationships and actual confusion, making it insufficient as a full substitute for copyright protection.

2.2. Protection and principles of non-textual game elements under UK law

The UK’s Copyright, Designs and Patents Act 1988 (CDPA) [4] establishes a clear copyright framework, categorising non-textual elements of video games—such as visual imagery, character designs, scene animations, and music—under artistic works, musical works, audiovisual works, and so on for separate protection. The Act requires that works be “original and fixed” in a tangible medium [4]. The standard of originality emphasises that the work must reflect the author’s independent skill, labour, and judgement, thereby excluding protection for purely functional elements (such as user interface layouts) or mere reproductions of materials from the public domain, in order to prevent excessive privatisation. UK law adheres strictly to the idea-expression dichotomy, explicitly stating that ideas such as game mechanics and rules are not protected, whereas their creative expressions (e.g. animations or visual effects) can qualify for copyright. For example, in *Nova Productions Ltd v Mazooma Games Ltd* (2007), the court distinguished between the idea of a pool game and the specific animated visuals, ruling that the absence of direct copying of the expression meant no infringement had occurred [5]. This approach aims to prevent the monopolisation of abstract concepts and to encourage subsequent innovation [6]. UK law imposes a relatively high threshold for originality, requiring the work to be “the author’s own intellectual creation,” as established in the *Infopaq* case [7]. Designs that are mundane or dominated by functionality—such as literal reproductions of historical prototypes—may be denied protection due to a lack of personalised choices, thereby ensuring that materials from the public domain (e.g. common themes) remain freely accessible [6]. Judicial practice in the UK prioritises legal certainty, relying strictly on statutory interpretation and conducting meticulous comparisons of protected expressions (such as composition and tone) to determine infringement, rather than basing decisions on abstract styles, as illustrated in *Temple Island Collections* [8]. This clearly delineates the boundary between lawful inspiration and improper imitation. Overall, UK law balances creative protection with functional freedom through a high standard of originality and a rigorous idea-expression distinction, thereby fostering both competition and innovation within the gaming industry [6].

2.3. Protection and principles of non-textual game elements under US law

In contrast to the UK's codified legal system, US copyright law exhibits a more flexible and adaptive approach in practice. Under the US Copyright Act of 1976, video games are broadly classified as audiovisual works, allowing their sequential images and sounds to be protected similarly to film reels. For example, in *Atari v. North American Philips* (1982), the court affirmed that graphical and sound elements could be protected, while gameplay mechanisms were deemed unprotectable ideas [6]. US law imposes a relatively low threshold for originality, requiring only "independent creation and a minimal degree of creativity" [3]. This allows for the protection of a wide range of content, from complex 3D models to simple pixel icons. Even minor alterations to historical prototypes may qualify for protection if they reflect independent choices, in sharp contrast to the UK's higher standard. However, this "low-bar" approach risks the over-privatisation of elements from the public domain. In *Capcom v. Data East* (1994), the court invoked the "scènes à faire" doctrine to exclude protection for generic fighting game features (e.g. health bars, basic moves), extending protection only to highly original character designs [1]. The application of the idea-expression dichotomy in US law is more ambiguous. While statutes do not protect game rules, courts often use the "substantial similarity" test to examine the overall "concept and feel" of a work. For example, in *Tetris Holding v. Xio Interactive* (2012), even though the defendant changed the block appearance, the court found infringement due to replication of gameplay presentation (e.g. vertical interface, line-clearing effects), effectively extending protection to the expressive manifestation of game rules [8]. The flexibility of US law heavily relies on case-by-case precedent. Courts adjust standards through individual rulings involving livestreamed gameplay or new mechanics, which accommodates technological evolution but also creates legal uncertainty: developers may face litigation risks for stylistic borrowing, and even successful defence may incur high costs [9]. In sum, US copyright law is characterised by its holistic protection of audiovisual works, low originality threshold, and flexible judicial discretion. While this enhances rights holders' protections, it also necessitates a careful balance between fostering innovation and avoiding overreach—forming a legal model markedly different from the more restrained UK system.

3. Methodology

This study employs a quantitative approach to explore the influencing factors and group differences associated with the piracy of *Black Myth: Wukong*. Data were collected through the Survey on Purchasers of Pirated Versions of *Black Myth: Wukong*, yielding a total of 289 valid responses.

3.1. Questionnaire design and variable selection

3.1.1. Questionnaire design

The questionnaire comprises four sections, covering demographic variables, behavioural variables, economic decision-making variables, and attitudinal variables. Demographic variables include age, province, city, and gaming duration. Multiple-choice questions were used to quantify reasons for piracy and user experience. Price sensitivity was measured using a five-point Likert scale and tiered pricing options, aiming to assess the role of pricing in legitimate purchase decisions and to identify primary factors influencing such purchases. Questions on copyright protection assessed users' perceptions of the legal and economic implications of piracy. Open-ended questions

were included to gather supplementary opinions on anti-piracy. A combination of closed- and open-ended questions was adopted in the questionnaire design. Following a pilot survey, revisions were made to eliminate ambiguities and enhance the questionnaire's validity and reliability.

3.1.2. Variable selection

Independent variables in this study include demographic variables such as age, province, and average daily gaming time; behavioural factors such as actual gameplay duration, satisfaction with pirated products, and perceived advantages of legitimate products; attitudinal factors such as perceived economic value of pirated products and perceptions of the relationship between copyright protection and technological innovation; and price sensitivity, encompassing perceptions of price fairness and acceptable price range for legitimate products. Dependent variables, from a behavioural decision-making perspective, include willingness to purchase pirated products and willingness to purchase legitimate products, aiming to evaluate how economic attitudes influence user behaviour.

3.2. Research hypotheses

To investigate the current state of video game copyright protection and the driving mechanisms behind piracy, this study proposes hypotheses from four dimensions: user characteristics, economic decision-making, moral cognition, and experiential feedback. First, due to limited financial resources and consumer awareness, minors are more inclined to choose pirated games. In rural or remote areas, restricted access to legitimate channels and weaker economic conditions further intensify regional differences in piracy. Heavy gamers, driven by immersive needs and financial pressure, are more likely to turn to piracy to satisfy prolonged gameplay demands. Second, economic pressure is widely regarded as the core driver of piracy; price-sensitive users are less able to afford legitimate pricing and tend to opt for piracy to reduce costs. Third, users' awareness of copyright value directly influences their moral decisions—when copyright consciousness strengthens, users are more likely to support developers and uphold innovation ecosystems by purchasing legitimate products. Finally, based on the theory of the “substitution effect,” if the experience of pirated games is high-quality (e.g., smooth performance, full features), users may perceive no need to pay extra for legitimate versions; conversely, if the pirated experience is poor (e.g., frequent bugs, missing features), users are more inclined to turn to legitimate copies.

Based on this analysis, the following four hypotheses are proposed:

H1: There are significant differences in age, region, and gaming time between users who purchase pirated games and those who do not.

H2: Price sensitivity is positively correlated with piracy behaviour.

H3: Awareness of copyright protection significantly increases willingness to purchase legitimate games.

H4: Satisfaction with pirated game experiences negatively affects willingness to purchase legitimate versions.

4. Results and analysis

4.1. Differences between pirated and legitimate game users

Table 1: Analysis of differences between users who purchase pirated games and those who do not

Variable	Category	Pirated Users (n=123)	Legitimate Users (n=166)	Significance Test (p-value)
Age	Under 18	18.7%	8.4%	0.003**
	18-24	63.4%	54.2%	
	25-34	15.4%	33.1%	
	Over 35	2.5%	4.3%	
Region Type	Urban	54.5%	76.5%	0.000***
	Suburban	16.2%	11.4%	
	Rural	29.3%	12.1%	
Daily Gaming Time	<1 hour	12.1%	25.9%	0.012*
	1-3 hours	46.3%	47.0%	
	3-5 hours	41.5%	27.1%	

Note: *** indicates $p < 0.001$; ** indicates $p < 0.01$; * indicates $p < 0.05$

As shown in Table 1, significant differences exist between pirated and legitimate game users in terms of age, region, and daily gaming duration. Among pirated users, 18.7% are under 18 years old, compared to only 8.4% among legitimate users, suggesting that minors, constrained by financial means, tend to opt for pirated versions, while legitimate purchases are primarily made by adults. Pirated users are more concentrated in rural areas (29.3%), while legitimate users are predominantly urban (76.5%), indicating that better economic conditions and access to legitimate channels in urban areas may explain the disparity. In terms of gaming duration, 41.5% of pirated users are heavy gamers (3–5 hours/day), compared to 27.1% among legitimate users, possibly because heavy users seek immersive experiences at lower costs. Conversely, 25.9% of legitimate users game for less than one hour per day, compared to only 12.1% among pirated users, suggesting that legitimate users may prioritise stability and official support. Overall, younger age, remote living areas, and longer gaming time are associated with a higher likelihood of piracy, supporting hypothesis H1.

Table 2: Regression analysis results

Hypothesis	Variable Relationship	β	p-value	R ²	Conclusion
H2	Price Sensitivity → Piracy Behaviour	0.82	0.000	0.47	Supported
H3	Copyright Awareness → Legitimate Purchase Intention	0.47	0.000	0.58	Supported
H4	Pirated Satisfaction → Legitimate Purchase Intention	-0.38	0.000	0.52	Supported

As shown in Table 2, price sensitivity exerts the strongest positive influence on piracy behaviour ($\beta = 0.82$, $p < 0.001$), indicating that a one-unit increase in price sensitivity raises the likelihood of piracy by 82%. Price sensitivity accounts for 47% of the variance in piracy behaviour, confirming it as a major driver and supporting H2. Awareness of copyright protection significantly influences willingness to purchase legitimate products ($\beta = 0.47$, $p < 0.001$), with a one-unit increase in copyright awareness increasing purchase intention by 47%. Copyright awareness explains 58% of the variance in legitimate purchase intention, supporting H3. Satisfaction with pirated versions negatively impacts legitimate purchase intention ($\beta = -0.38$, $p < 0.001$); for every unit increase in pirated satisfaction, purchase intention for legitimate products decreases by 38%, explaining 52% of

the variance—indicating that the better the pirated version, the less attractive the legitimate one becomes. In summary, economic factors, moral considerations, and piracy satisfaction are the three main forces shaping user behaviour. Therefore, anti-piracy efforts must address pricing, education, and legitimate product value while reducing the appeal of pirated versions to diminish their competitiveness.

5. Conclusion and recommendations

5.1. Clarify the legal status of video games and improve the categorisation of copyrighted works

Although Chinese judicial practice has provided overall protection for game visuals under existing categories such as cinematographic works, legislation must keep pace with technological developments. It is necessary to clarify that video games constitute an integrated and composite work. Future amendments to copyright law or judicial interpretations should incorporate the concept of video games and formally recognise them as a unified audiovisual work. This would not preclude individual elements from also being protected independently as separate works. Such a dual attribute designation for game audiovisual works would allow rights holders to defend their rights either with respect to the work as a whole (e.g., against wholesale cloning of games) or specific elements (e.g., music or design assets). This practice has already emerged in some jurisdictions; for example, the European Union Court tends to characterise games as “multimedia works.” China can draw on such legislative models by listing games as audiovisual works in legal provisions. This would enable courts to affirm protection without having to determine the specific work category in infringement disputes, thereby improving judicial efficiency and ensuring consistency in rulings.

5.2. Refine the distinction between ideas and expressions, and strengthen the requirement of originality

To prevent the overextension of protection into functional elements, China should adhere to a strict application of the idea–expression dichotomy. On one hand, the Supreme People’s Court could issue judicial interpretations or guiding cases listing elements of games that are not subject to protection, such as rules, fundamental gameplay concepts, interface layouts, and generic artistic styles. This would help unify judicial standards. On the other hand, the standard of originality must be clarified. For content derived from the public domain or constrained by functionality, rights holders should be required to demonstrate a sufficient degree of originality or creative transformation before qualifying for protection. For instance, it could be stipulated that “Game elements adapted from public-domain materials shall only be considered original works under copyright law if they exhibit expressions clearly distinguishable from the source material.” This would prevent abuse of copyright claims over public-domain content and guide creators toward enhancing the originality of their work.

5.3. Encourage diversified intellectual property protection strategies

Beyond copyright protection, non-textual elements of games can benefit from a combination of trademark, patent, and other IP rights for a complementary protection approach. For example, game names, character names, and logos with commercial value should be registered as trademarks to avoid consumer confusion. Original character models and scene designs may qualify for design patents, offering additional protection in terms of product appearance. Innovative gameplay

mechanics may be protected through invention or utility model patents. Source code, art files, and other trade secrets should be safeguarded using technical measures and confidentiality agreements to prevent internal leaks, and in cases of disclosure, remedies under the Anti-Unfair Competition Law may be invoked. These measures can help construct a broad and robust “moat” around game IP, deterring potential infringers by raising the cost and risk of infringement.

5.4. Establish a legal shared platform for licensed content and counter piracy through a differentiated incentive mechanism

To address the excessive circulation of pirated resources under the guise of the sharing economy, a platform for legally sharing authorised content should be established. This platform would bring user sharing within the bounds of law and regulation, rewarding different forms of sharing to enhance the added value of copyrights. The platform could issue digital access passes for licensed content that allow temporary sharing among friends, with experience records and achievements retained permanently. This lowers the barrier to legal usage and encourages more players to opt for licensed versions. Users could be rewarded for sharing by referring friends to purchase the licensed game or participating in anti-piracy campaigns, earning reward points redeemable for exclusive content such as expansion packs, limited-edition skins or handbags, and customised peripherals. This would create a positive feedback loop of “sharing–reward–loyalty,” incentivising legitimate use. Moreover, blockchain technology can be applied to limited-edition collectibles—such as exclusive accessories, artbooks, or co-branded peripherals—available only to active users. By linking physical game items to blockchain credentials, the collectible value and anti-counterfeit capabilities are enhanced, making licensed versions a rare commodity. This turns sharing into a tangible act and licensed products into coveted goods, transforming digital copyright into a premium cultural product. In doing so, licensed consumption becomes not only a practical choice but also an emotional and cultural one. The result is a matrix-style development of publishers and creative enterprises that extends the value chain of copyright and forms a triple-layered firewall of experiential, social, and collectible consumption to counter piracy.

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