

# Game clones and copyright infringement

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## Summary

A video game is a system that provides experiences to its players through interactivity. The interactivity provided by a video game does not mean the players can bring something to the game that does not initially exist in the game. Inside a video game, four inter-related elements: mechanics, story, aesthetics, and technology, make video game software and its screen display both interdependent and relatively independent. The concept of “game clone” refers to the phenomenon that the four inter-related elements: mechanics, story, aesthetics, and technology, of a game clone are similar or identical to those of an earlier game. Since that phenomenon has become a world-wide legal challenge, especially in China, this research tries to answer the question: *When determining copyright infringement caused by game clones, how should Chinese courts, compared with the legal experiences in the courts of the US and Japan, improve their judicial practice when handling the three core issues, including the copyrightability of a video game, the copying of protectable expressions between disputed video games, and the applicability of copyright exceptions and limitations?*

Under international treaties, for the first core issue, the copyrightability of a video game, a video game can be protected because it accords with the characteristics of “literary and artistic works”, and the protection of a video game can follow the approach of distributive classification, which means different contents of the video game can be protected as different subject-matters enumerated in international treaties. However, it is not optimistic to protect the video game as a single subject-matter, because it fails to identify a video-game as either an enumerated or non-enumerated subject-matter, such as multimedia works. For the second core issue, the finding of copying of protectable expressions between disputed video games, international treaties do not provide us with any guidance but do give us clues that the action of cloning a pre-existing video game may infringe a reproduction right. Here, the idea/expression dichotomy can be used as a tool for determining the scope of protection for a video game. For the third core issue, the applicability of copyright exceptions and limitations, international treaties also do not give us any clear guidance. Since international treaties cannot provide any specific guidance, in the following table we compare how national courts in the US, Japan, and China respond to these three core issues.

	<b>The US</b> (Chapter 3)	<b>Japan</b> (Chapter 4)	<b>China</b> (Chapter 5 Section 5.3)
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<b>I. Copyrightability</b>	<p>Originality: (1) a modicum of creativity; (2) confirmed if <i>prima facie</i> evidence is not challenged.</p>	<p>Creativity: (1) reflection of personality; (2) range of choice</p>	<p>Originality: (1) reflection of personality; (2) expressions that can be expressed in various ways, (3) expressions that are not ordinary or common</p>
	<p>Subject-Matter: (1) computer program (2) audio-visual work</p>	<p>Subject-Matter: (1) program work (2) cinematographic work (3) fine arts work</p>	<p>Subject-Matter: (1) written work (2) fine arts work (3) graphic work (4) cinematographic work (audio-visual work)</p>
		<p>Scope of protection for a video game screen display:</p> <p>(1) Protectable: game characters, features of a playing field, stories, and specific settings such as values</p> <p>(2) Non-protectable: contents related to game balance and interactivity</p>	<p>Scope of protection for a video game screen display:</p> <p>(1) Protectable: textual descriptions (characters, plots, items, game introduction); specific images (characters, items, game scenes maps, icons of game skills and app, some user interfaces); game maps (game scene map, game mini-maps); a series of continuous images (layouts and specific contents of user interfaces that can be considered as a specific way of presenting specific game rules, choice and arrangement of unprotectable materials)</p> <p>(2) Non-protectable: names of video games, game characters, items, and other unprotectable objects; user interfaces that are dictated by functional</p>

			<p>considerations or should be considered as ordinary for a video game</p>
<p><b>II. Finding of copying of protectable expressions between disputed video games</b></p>	<p>Abstraction-Filtration-Comparison Test for video game software:</p> <p>Abstraction: abstract software into six levels, including: (1) main purpose; (2) system architecture; (3) abstract data types; (4) algorithms and data structures; (5) source code; and (6) object code.</p> <p>Filtration: isolate non-protectable elements from each level of a program, such as ideas, information, methods, scientific discoveries, facts, information in the public domain, expressions that should be considered as “scenes a faire” (i.e., external factors like hardware standards and mechanical specifications, software standards and compatibility requirements, computer manufacturer design standards, target industry practices and demands, and computer industry program practices) or inseparable from the idea. After filtering out the unprotectable elements, “source code and file layouts” are the remaining protectable expressions in a</p>	<p>Find similarity between video game software (clues from ordinary software):</p> <p>(1) explain in detail the factual issues regarding disputed software mentioned by both parties,</p> <p>(2) apply the “direct perception of essential features of expression” standard by mainly confirming whether a certain computer program is protectable,</p> <p>(3) limit the scope of protection for computer programs by considering the public interest (such as the range of choice for follow-on programmers, its influence on specific industrial fields like computers, and its influence on social life and economics in a general sense) and</p>	<p>Find substantial similarity between video game software (clues from ordinary software):</p> <p>(1) compare the source programs, the object programs, the characteristic defects of software, and the contents in storage media, installation process, the installation manual, and operational status. Besides that, Chinese courts will also confirm the existence of substantial similarity if the claimant’s technical monitoring means can prove that the claimant’s software has been used.</p> <p>(2) identify the scope of protection for the claimant’s contents by excluding the protection of the claimant’s contents if those contents are expressions with unique or limited forms.</p> <p>(3) After a Chinese court filters out all the unprotectable expressions in the claimant’s software,</p>

	<p>computer program.</p> <p>Comparison: rely on expert knowledge in the area of computer programming to make the comparison</p>	<p>whether expressions of computer programs are strongly restricted by considerations of utilitarian functions.</p> <p>(4) rely on a person's instincts to make the comparison.</p>	<p>the comparison between protectable expressions in the claimant's software and related programs in the defendant's software will be determined by following the judicial authentication, which has already shown whether similarities can be found between disputed programs as a factual issue</p>
	<p>Extrinsic/Intrinsic Test for video game screen displays</p> <p>Extrinsic: (1) abstract the idea of a game by describing game rules with fairly abstract terms (2) protectable expressions: characters, playing fields, settings, and sounds (3) preclude non-protectable expressions from protection by considering scenes-a-faire doctrine, merger doctrine, and functional consideration.</p> <p>Intrinsic: (1) find protectable expressions, which may be omitted in the analytic dissection, in the general sense of a display or arrangement of elements in a display. (2) compare "total concept and feel" of video game screen displays from a perspective of an ordinary observer or intended audience, but prohibit an analytic dissection</p>	<p>Find similarity between video games screen displays by applying the "direct perception of essential features of expression" standard and the "commonality of creative expressions" standard:</p> <p>(1) compare the constituent elements of an image, all those continuous moving images, and the arrangement of those images as a whole.</p> <p>(2) in the comparison, focus on the copyrightability and scope of protection of disputed contents, and the issue of whether the contents of the alleged infringed display are similar to protectable contents is</p>	<p>Find substantial similarity between video game screen displays:</p> <p>A. For constituent elements of a video game screen display protected as written works, fine arts works, and graphic works: (1) focus on whether disputed contents are copyrightable and preclude the unprotectable contents from protection that belong to necessary scenes, ordinary expressions, and expressions with unique or limited forms (overlap with the copyrightability issue to some extent) (2) rely on the perspective of an ordinary person to make the comparison.</p> <p>B. For video game screen displays protected as cinematographic works: a. The constituent-elements-based comparison: same as how substantial</p>

<p><b>II. Finding of copying of protectable expressions between disputed video games</b></p>		<p>determined by relying on a person’s instincts and visual comparison.</p> <p>(3) the scope of protection for a video game screen display does not extend to the game rules themselves, the “style” (which is a hard-to-define concept) of a video game, and the user interface dictated by functional considerations. Japanese courts tend to provide a rather limited scope of protection for constituent elements in a video game screen display, and that limited scope can only protect against literal copying and modifications that are small and not obvious.</p> <p>(4) the degree of difference between disputed video game screen displays will affect the finding of similarity. When the alleged infringing video game screen display contained expressions different from the alleged infringed one, if those</p>	<p>similarity is found between fine art works</p> <p>b. The overall-based comparison:</p> <p>(1) the scope of protection: besides the specific contents that can be protected as written works, fine arts works, and graphic works, also include the contents related to game rules</p> <p>(2) rely on game players’ overall perspective to make the comparison.</p>
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<b>III. Application of copyright exceptions and limitations to game clones</b>	Applicable to functional elements (such as the APIs) of video game software	Not Applicable	Not Applicable
	Not Applicable to Video Game Screen Displays		

Although there are indeed some differences between US judicial practice and judicial practice in the courts of Japan and China, when looking at the issue of copyrightability and of finding copying of protectable expressions together, we get the impression that judicial practices in the US, Japan, and China all have a similar effect: they all provide a detailed analysis of what can be protected in a video game and provide a scope of protection for specific contents. For the applicability of copyright exceptions and limitations to game clones, the courts of the US, Japan, and China all appear to answer this question in the negative regarding the cloning of video game screen displays. While for the cloning of video game software, US courts may consider the copying of functional elements of a computer program (such as the APIs) as fair use. Except for that, the copying of other parts of a computer program will be copyright infringement, and that is the same as the judicial practices in Japan and China.

Through the comparison, we find a common problem in the judicial practices of the US, Japan, and China: how to determine copying of protectable expressions between disputed video game screen displays. That problem is reflected from the divergence of opinions about the scope of protection for a video game screen display and whether the comparison should be made by relying on an ordinary person's instincts or perception. In Section 5.4 of Chapter 5, we provide a theory as a recommendation to solve the problem. The theory has three steps similar to the AFC test: (1) In the first step, we abstract a video game screen display into four levels: the problem statement of a game, the nature of the fictional world created by the game, the manner of the display, and the elements of the display. (2) In the second step, we filter out the ideas and unprotectable expressions from each level. (3) In the third step, with the assistance of expert opinions, we make the comparison by using the sliding-scale approach.