*Untitled Paper on Court’s Treatment of Copyright in the Case of Video Games*

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1. **Introduction**

Copyright law, while well defined in statutory law[[1]](#footnote-1), is often quite difficult to apply in practice due to the substantial diversity in the types of works it can be applied to. This is especially true in the case of video games, where game mechanics and expression can often appear substantially intertwined to a layman observer.

The Courts have demonstrated, both in recent cases and in the past, that they have substantial difficulty in applying copyright protection properly in the case of video games. This difficulty stems from the application of an improperly high level of abstraction in distinguishing non-protected game mechanics from expression worthy of copyright protection. It is important that the Courts adopt a uniform test for applying copyright law to video games which reflects the proper level of abstraction for two reasons. First, to avoid providing the broad and enduring protections of copyright to elements of video games that qualify only for less far reaching intellectual property protections under the law. Second, to avoid the economic damage to the commons of over-rewarding video game creators with such far-reaching protections.

In order to provide a more full understanding of this issue, this paper will provide a brief discussion of the legal framework underlying the application of copyright law to video games. In order to do this, this paper will begin with a basic analysis of the relevant elements of copyright law to this issue. Then it will provide a synopsis of landmark cases that illustrate the progression of the Courts’ treatment of video games. This will be followed by specific examples of instances where the Courts have applied an improperly high level of abstraction in the copyright analysis of video games. These examples will be juxtaposed with an example of a proper abstraction of gameplay elements in the case of two popular video games: *Bastion* and *Prince of Persia*. Finally, this paper will put forth evidence that the Courts’ treatment of video games in the copyright context flies in the face of both the legal intent behind copyright law and the economic justifications for copyright law.

1. **Basic Explanation of Relevant Elements of Copyright Law**

In order to fully understand both the history of cases outlining the Courts’ treatment of video games for purposes of copyright and the issues with this treatment it is important to understand the basics of modern copyright law. The most salient points of copyright law to the issues discussed by this paper are: copyright infringement generally, the idea-expression dichotomy, merger doctrine, and scénes á faire. Accordingly, the legal elements and implications of these issues will be briefly outlined; this is by no means a comprehensive discussion of these issues and will be focused on those issues relevant to this paper.[[2]](#footnote-2)

* 1. **Copyright Infringement**

The primary purpose of copyright law, as drawn from the constitutional authority by which copyright law is created, is “to promote the progress of science and useful arts, by securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries.”[[3]](#footnote-3) In order to accomplish this, copyright law provides certain exclusive rights to creators of a work of authorship.[[4]](#footnote-4)

As one might imagine, the ability to protect these exclusive rights through legal action is one of the most important parts of owning a copyright. Where a copyright owner feels that their rights have been invaded, they may act to protect their exclusive rights through a copyright infringement lawsuit.[[5]](#footnote-5)

In order to establish a prima facie case of copyright infringement a must be able to prove two elements: “(1) ownership of a valid copyright; and (2) copying of constituent elements of the work that are original.”[[6]](#footnote-6) Establishing the ownership of a valid copyright can be done in a number of ways, including valid registration of a copyright.[[7]](#footnote-7) The test for copying requires evidence of both access and substantial similarity.[[8]](#footnote-8) In several circuits, this test involves a sliding scale of evidence.[[9]](#footnote-9) Where there is sufficient evidence of similarity it is acceptable for there to be no evidence of access.[[10]](#footnote-10) However, while substantial evidence of access can reduce the amount of evidence of similarity required, there must always be at least some evidence of similarity.[[11]](#footnote-11)

While this analysis is important to the understanding of how a copyright case functions, what is far more important for purposes of this paper is what falls under the scope of copyright. In other words, what material is subject to copyright protection and what is material is not. This distinction can be well explained as part of an analysis of the idea-expression dichotomy and merger doctrine.

* 1. **Copyright Scope, Idea-Expression Dichotomy, and Merger Doctrine**

It is notable that before a court reaches an analysis of the second element of copyright infringement, they must first address what elements of the work are subject to the protections of copyright.[[12]](#footnote-12) This is because before making a similarity analysis the court must know what elements are subject to protection so they do not analyze unprotected elements of a work in making a similarity analysis.[[13]](#footnote-13) This analysis has been discussed in as determining the appropriate level of abstraction at which to analyze material in a work.[[14]](#footnote-14) In other words, determining what level to analyze a work at, whether it be at the level of the literal words or expression, the level of the overall flow of events, or some other level.

The scope of what is protected by copyright is, at first glance, well defined.[[15]](#footnote-15) There are statutory descriptions of all the different types of works protected under copyright.[[16]](#footnote-16) More importantly for purposes of this paper, copyright protection is expressly reserved for expression as opposed to ideas.[[17]](#footnote-17) The language of this section reads:

In no case does copyright protection for an original work of authorship extend to any idea, procedure, process, system, method of operation, concept, principle, or discovery, regardless of the form in which it is described, explained, illustrated, or embodied in such work.[[18]](#footnote-18)

In case law, this limitation is commonly known as the idea-expression dichotomy.[[19]](#footnote-19) The landmark case on this issue is Baker v. Selden, which ruled that an author has no protection in the underlying ideas and concepts of their work.[[20]](#footnote-20) The author has protection only in the author’s particular embodiment of that idea.[[21]](#footnote-21)

This distinction can be a complicated one. It is easy to imagine situations where idea and expression become virtually inseparable, especially in the case of video game mechanics. However, it is well established that others are always free to utilize the idea behind a work; they simply may not plagiarize the author’s particular expression of that idea.[[22]](#footnote-22) For example, case law has stated that while the idea of a jeweled hansom cab pin may not be copyrighted the particular expression of a jeweled hansom cab pin may.[[23]](#footnote-23) Thus, the similarity analysis in this case would be between the two expressions of a hansom cab pin.[[24]](#footnote-24) In other words, in determining similarity for copying purposes the court would limit themselves to the protected expression of the copyrighted pin in making their analysis. They would not consider whether the two pins were similar because they both represented hansom cabs; they would instead consider how similar the two representations of hansom cabs were independent of the underlying idea.

Where there are limited ways to express an idea, the courts apply something called merger doctrine. Merger doctrine is very commonly applied in elements of a work that could be considered to have a utilitarian function[[25]](#footnote-25), such as a video game mechanic. How merger doctrine is applied varies from circuit to circuit; many circuits provide no protection whatsoever where expression becomes indistinguishable from the underlying idea.[[26]](#footnote-26) However, a few courts have applied merger doctrine so as to provide extremely narrow copyright protection—protecting only virtually identical copying.[[27]](#footnote-27)

* 1. **Scénes á Faire**

The doctrine of scénes á faire is closely related to merger doctrine. Scénes á faire are defined as “incidents, characters or settings which are as a practical matter indispensable ... in the treatment of a given topic.”[[28]](#footnote-28) As a matter of law, scénes á faire are provided no copyright protection whatsoever.[[29]](#footnote-29)

The Hoehling case provides a good example of the application of this doctrine.[[30]](#footnote-30) This case dealt with two books that both dealt with the last journey of the infamous blimp, the Hindenburg, as set against the backdrop of Adolf Hitler’s Third Reich.[[31]](#footnote-31) The case properly begins by limiting the material to be considered by addressing what of the works is not subject to copyright protection.[[32]](#footnote-32) The case discusses how narrow the copyright protection is in historical accounts and from there moves to the remainder of what might be protected. [[33]](#footnote-33) According to the case:

The remainder of Hoehling's claimed similarities relate to random duplications of phrases and sequences of events. For example, all three works contain a scene in a German beer hall, in which the airship's crew engages in revelry prior to the voyage. Other claimed similarities concern common German greetings of the period, such as “Heil Hitler,” or songs, such as the German National anthem.[[34]](#footnote-34)

The case goes on to define all these elements as scénes á faire, defining them as “incidents, characters or settings which are as a practical matter indispensable, or at least standard, in the treatment of a given topic.”[[35]](#footnote-35) In this example, it would be near impossible to discuss the Third Reich without reference to the recognizable salute of the Nazi Party. Similarly, it would be extremely difficult to authentically express the German people if one author could claim monopoly over common German greetings or the German national anthem. The example of the German beer hall shows another application of scénes á faire. This scene is so vague and commonplace as to be undeserving of copyright protection in the eyes of the Courts. It is easy to imagine that copyright protection in anything so general as people drinking at a German bar would provide an impressively broad monopoly to a copyright owner. Thus, elements that fall under the definition of scénes á faire (such as those discussed above) receive no copyright protection whatsoever.[[36]](#footnote-36)

1. **History and Discussion of Courts’ Treatment of Video Games in the Context of Copyright[[37]](#footnote-37)**

It is “well settled that the literal elements of computer programs, i.e., their source and object codes, are the subject of copyright protection.”[[38]](#footnote-38) However, the Courts have been struggling with the copyright treatment of the non-literal elements of video games for quite some time.[[39]](#footnote-39) One of the earliest cases dealing with the treatment of video games for copyright purposes took place as far back as 1981.[[40]](#footnote-40) This lawsuit, Atari v. Amusement World, Inc. (hereinafter Atari), dealt with the copyright protection over one of the first well-known video games—*Asteroids*.[[41]](#footnote-41) The “Asteroids” game was at that point primarily a coin-operated arcade-style video game.[[42]](#footnote-42) Atari was suing Amusement World over their *Meteors*[[43]](#footnote-43) arcade-style video game; which Atari alleged infringed their copyright in *Asteroids*.[[44]](#footnote-44) Amusement World challenged whether video games could receive copyright protection whatsoever, to which the court responded that video games did indeed merit copyright as audiovisual works.[[45]](#footnote-45) In making this determination, the court pointed to the definition of an audiovisual work under 17 U.S.C. § 101, which describes audiovisual works as:

Works that consist of a series of related images which are intrinsically intended to be shown by the use of machines or devices such as projectors, viewers, or electronic equipment, together with accompanying sounds, if any, regardless of the nature of the material objects, such as films or tapes, in which the works are embodied.[[46]](#footnote-46)

The court also ruled that video games could be protected as motion pictures, once again relying on the statutory definition of motion pictures under the Copyright Act.[[47]](#footnote-47)

With the general issue of whether a video game could receive copyright out of the way, the court next turned to an analysis of what elements of the *Asteroids* video game could be considered for a similarity analysis.[[48]](#footnote-48) In making this analysis the court focused on the issues of the idea-expression dichotomy as discussed above.[[49]](#footnote-49) They determined that while there was no protection for the idea of a game with asteroids, there was protection for the expression of the *Asteroids* game.[[50]](#footnote-50) This expression included “symbols that appear on the display screen, the ways in which those symbols move around the screen, and the sounds emanating from the game cabinet.[[51]](#footnote-51)” Ultimately, the court ruled in favor of non-infringement by the defendant.[[52]](#footnote-52) While both video games included a triangle-shaped spaceship shooting asteroids, the expression of *Meteors* was distinct enough from that of *Asteroids* as to not be infringement.[[53]](#footnote-53)

This case begins to clarify the issue of the copyright treatment of video games. It definitively ruled, and properly so, that some elements of video games are due copyright protection as audiovisual works. However, the cases discussion of the idea-expression dichotomy is a little less clear. On its face, the case makes a clear assertion that underlying ideas of video games are not protected but the expression of those ideas is protected. However, the issue that stems from this is where to draw the line between idea and expression. The explicitly protected forms of expression listed by the Atari case are also not entirely helpful. For instance, the term “the ways in which those symbols move around the screen”[[54]](#footnote-54) could mean either the way in which that movement is expressed or the game mechanic behind that movement. In the context of this case it seems likely that the former is what was intended as it is pure expression. However, this is still an ambiguity that can lead to a misunderstanding of what is protected expression for copyright. The application of copyright to game mechanics, as will be discussed later in this paper, is an issue some courts have struggled with properly applying.[[55]](#footnote-55)

The Atari case also touches on, but does not explicitly address, the concepts of merger doctrine and scénes á faire. In discussing why the most of the similarities between *Asteroids* and *Meteors* were not protected expression, the court argues that these similarities are inevitable in a video game about spaceships battling rocks.[[56]](#footnote-56) The court specifically discussed the following issues in this context:

The player must be able to rotate and move his craft. All the spaceships must be able to fire weapons which can destroy targets. The game must be easy at first and gradually get harder, so that bad players are not frustrated and good ones are challenged. Therefore, the rocks must move faster as the game progresses. In order for the game to look at all realistic, there must be more than one size of rock. Rocks cannot split into very many pieces, or else the screen would quickly become filled with rocks and the player would lose too quickly. All video games have characteristic sounds and symbols designed to increase the sensation of action. The player must be awarded points for destroying objects, based on the degree of difficulty involved.[[57]](#footnote-57)

This list can be broken up into two groups: game mechanics and expression necessary to properly express the overarching idea behind the game. While the court never expressly calls on the concepts of merger doctrine or scénes á faire in making their determination on this issue, instead couching their language solely in the overarching concept of the idea-expression dichotomy,[[58]](#footnote-58) the ideas behind these two legal doctrines are implicit in their reasoning. As discussed above, where there are only so many ways of expressing an idea or certain expression is indispensable in dealing with a certain topic or concept then merger doctrine or the doctrine of scénes á faire respectively apply.[[59]](#footnote-59)

 Atari does not explicitly discuss applying these doctrines to the copyright treatment of video games. Fortunately, seven years after the Atari case, a case would specifically address the issue of scénes á faire in video games.[[60]](#footnote-60) The case of Data E. USA, Inc. v. Epyx, Inc (hereinafter Epyx) dealt with two fighting video games: the plaintiff’s video game *Karate Champ*[[61]](#footnote-61) and the defendant’s video game *World Karate Champion*ship.[[62]](#footnote-62) In making its analysis, the court first addressed the concept of the idea-expression dichotomy then went on to specifically discuss the two video games in light of the scénes á faire doctrine.[[63]](#footnote-63) The lower court in this case had analyzed fifteen separate similarities in reaching a conclusion that the defendant’s game was similar enough to infringe.[[64]](#footnote-64) These elements were as follows:

A. Each game has fourteen moves.

B. Each game has a two-player option.

C. Each game has a one-player option.

D. Each game has forward and backward somersault moves and about-face moves.

E. Each game has a squatting reverse punch wherein the heel is not on the ground.

F. Each game has an upper-lunge punch.

G. Each game has a back-foot sweep.

H. Each game has a jumping sidekick.

I. Each game has low kick.

J. Each game has a walk-backwards position.

K. Each game has changing background scenes.

L. Each game has 30–second countdown rounds.

M. Each game uses one referee.

N. In each game the referee says “begin,” “stop,” “white,” “red,” which is depicted by a cartoon-style speech balloon.

O. Each game has a provision for 100 bonus points per remaining second.[[65]](#footnote-65)

It is notable that this list is very similar in content to the list of unprotected elements in Atari. That is, it is primarily comprised of game mechanics and expression common to the idea of a karate tournament. The Ninth Circuit Court certainly felt this was the case and ruled these elements to only receive the very narrow level of copyright protection provided by the Ninth Circuit’s merger doctrine rules.[[66]](#footnote-66) The Court specifically stated on this issue:

The fifteen features listed by the [lower] court “encompass the idea of karate.” These features, which consist of the game procedure, common karate moves, the idea of background scenes, a time element, a referee, computer graphics, and bonus points, result from either constraints inherent in the sport of karate or computer restraints. After careful consideration and viewing of these features, we find that they necessarily follow from the *idea* of a martial arts karate combat game, or are inseparable from, indispensable to, or even standard treatment of the *idea* of the karate sport. As such, they are not protectable. “When idea and expression coincide, there will be protection against nothing other than identical copying.”[[67]](#footnote-67)

The Court would go on to rule for the defendants on a non-infringement basis.[[68]](#footnote-68) This case specifically mentions game procedure and game mechanics as not subject to copyright protection under merger doctrine and scénes á faire. This stands for the proposition that the functional ideas behind how a game works are not protected under copyright law.

 This proposition is supported in very recent cases as well, such as the case of Tetris Holding, LLC v. Xio Interactive, Inc. (hereinafter Tetris).[[69]](#footnote-69) In fact, Tetris outright states that “the game mechanics and the rules [of video games] are not entitled to protection, but courts have found expressive elements copyrightable.[[70]](#footnote-70)

 Tetris also provides an excellent summary of the treatment of video games for copyright purposes in case law before it; as well as an excellent example of one of the main issues of this paper—the inability of the Circuit Courts to reach a consensus on the proper treatment of video games in the copyright context.[[71]](#footnote-71) In Tetris, the plaintiff was suing the defendant claiming that the defendant’s *Mino* video game was infringing on their well-known *Tetris* game.[[72]](#footnote-72) The defendant Xio did not dispute that the *Mino* game was inspired by *Tetris*. In fact, the owner of Xio stated on the record “its game was copied from Tetris and was intended to be its version of *Tetris*.”[[73]](#footnote-73)

 Fig. A –The two games from Tetris side by side.[[74]](#footnote-74)

A statement from Xio’s brief on the issue stated:

There is no question that *Mino* and *Tetris* look alike. But the only similarities between the games are elements not protected by copyright. This is no coincidence. Before developing its games, Xio analyzed the intellectual property laws to determine what parts of *Tetris* they could use and what parts they couldn't. Xio discovered that no one had a patent to the rules and other functional elements of *Tetris.* Xio carefully, intentionally, and purposefully crafted its game to exclude all protected, expressive elements.[[75]](#footnote-75)

Thus, the court in Tetris turned its attention to separating the protected from the non-protected elements of the *Tetris* game.[[76]](#footnote-76)

 In making this analysis, the Tetris court looked to the tests provided by two different Circuits for analyzing copyright protection in computer software. First, it discussed the test from the Third Circuit case Whelan Associates, Inc. v. Jaslow Dental Lab., Inc. (hereinafter Whelan).[[77]](#footnote-77) Then it turned to the test provided by the Second Circuit in Computer Assocs. Int'l v. Altai.[[78]](#footnote-78) These two tests carry substantial weight in how the courts analyze similarity for purposes of video games and computer software generally and will briefly be addressed in greater detail.

The Tetris court, however, felt that the tests promoted the same principle and ultimately instructed the courts to perform the same task: “delineate between the copyrightable expression in *Tetris* and the unprotected elements of the program, then evaluate whether there is substantial similarity between such expression and Defendant's *Mino* game.”[[79]](#footnote-79) In undertaking this task, Tetris again applied the concepts of idea-expression, merger doctrine, and scénes á faire that have repeatedly come up in applying copyright to video games.[[80]](#footnote-80) They cite numerous authorities in support of the assertion that what is protected expression is the audiovisual display of a video game.[[81]](#footnote-81) Tetris also makes an important assertion as to application of merger doctrine, stating that expression related to a game function, rule or mechanic is not automatically non-protected expression simply due to this relation.[[82]](#footnote-82) The court states: “In no case, however, did a court find that expression was unprotectible merely because it was related to a game rule or game function.[[83]](#footnote-83) When the Tetris court turned to similarity, they began analyzing the expression as follows:

The style of the pieces…both in their look and in the manner they move, rotate, fall, and behave. Similar bright colors…used in each program, the pieces are composed of individually delineated bricks, each brick is given an interior border to suggest texture, and shading and gradation of color are used in substantially similar ways to suggest light is being cast onto the pieces.[[84]](#footnote-84)



Fig. B—The individual puzzle blocks of the two games in Tetris set side-by-side.[[85]](#footnote-85)

The court stated that this near identical similarity of expression was, on its own, sufficient to establish infringement.[[86]](#footnote-86) The court also found protectable for purposes of analysis: the dimensions of the field of play where it was identically reproduced, the individually delineated squares within the *Tetris* pieces, the display of the next piece to fall, the change in color of pieces when they lock into place, the appearance of squares automatically filling the board when the game is over, the display of garbage lines, and the appearance of shadow pieces.[[87]](#footnote-87) Thus, the court found in favor of Tetris on the issue of infringement.[[88]](#footnote-88)

While the Tetris court’s understanding of how video games are analyzed under copyright law is generally correct, some of Tetris’ reasoning—especially the reasoning leading up to its conclusion— misses the mark. This is not to say that Tetris’ conclusion is incorrect, on the contrary it seems fairly clear that the similarities between the protected expression in the two video games were sufficient to make a finding of infringing. The misunderstandings of the Tetris court serve to highlight the confusion the courts have on this issue and the split in treatment between different courts. On the issue of merger, the Tetris court asserts that no case has ever held that expression was subject to the limitations of scénes á faire or merger doctrine simply due to relation to a game rule or function.[[89]](#footnote-89) However, this is the very assertion that we have seen made in Epyx.[[90]](#footnote-90) In an effort to distinguish itself from Epyx, Tetris points to the fact that the idea behind a karate tournament is based in reality while *Tetris* is a purely fictional puzzle game.[[91]](#footnote-91) Thus, Tetris argues that there can be no expressive elements that are necessary to a “unique puzzle game that is divorced from any real world representation.”[[92]](#footnote-92) While there is support for the assertion that purely fanciful expression gets strong copyright protection[[93]](#footnote-93), the same assertion made in the case of fanciful ideas finds no support in legislation or case law. In fact, the purpose of merger doctrine and scénes á faire is to prevent monopoly in an idea—regardless of its factual or fictional nature.[[94]](#footnote-94) It is easy to see how allowing copyright on an abstract fictional idea, such as a puzzle game involving the manipulation of geometric blocks, provides a similar topic monopoly as is described in the above discussion of scénes á faire.[[95]](#footnote-95) What’s more, the fact that an idea has no real world representation does not mean that it can have no necessary conventions. A very simple example of this is the video game *Portal*; in *Portal* the player creates dimensional rifts through which they can travel to solve puzzles.[[96]](#footnote-96) There is certainly no real world representation of a portal of this nature. However, it is just as certain that the idea behind this portal could not be expressed without some object or phenomenon through which a player travels and comes out the other side in a different location. The original bare assertion by Tetris[[97]](#footnote-97) is not incorrect, there are situations in which the expression of an idea can and should receive limited protection.[[98]](#footnote-98) Tetris’ argument that Xio need not have created a puzzle game using the exact same shapes as *Tetris* alsohas merit. That being said, had Xio created a game using the exact same shapes where the expression of those shapes was suitably distinct—for instance if all the blocks were animals in the positions of *Tetris* blocks—this would have not infringed as the copying of an idea such as a geometric puzzle game using pieces made of four blocks could only receive protection for virtually identical copying under appropriate case law precedent.[[99]](#footnote-99) While Tetris ultimately applied a generally proper level of abstraction by limiting itself to the actual expression of the *Tetris* game[[100]](#footnote-100), applying their analysis of merger in future cases could easily lead to situations where a game such as *Portal* could possess a monopoly on the idea underlying its game for the full life plus seventy years of a copyright term.

 When one looks to some of the cases cited by the Tetris court, it is not surprising that even a court so generally on point in its discussion of copyright law as applied to video games could struggle with its analysis of abstraction. The case precedents are rife with Circuit inconsistencies and cases that improperly apply the underlying law on this issue. In beginning a discussion of this, it will be useful to return to the Whelan and Altai cases. This is because the failure to fully recognize one of the fundamental issues with Whelan could be largely responsible for the issues Tetris had in analyzing merger in their case. The Third Circuit’s Whelan holding was among the first cases to address the issue of how to deal with computer software in the copyright context.[[101]](#footnote-101) The Whelan case dealt with a computer program designed to facilitate dental laboratory record keeping;[[102]](#footnote-102) and more importantly it dealt with how to analyze said software for copyright purposes.[[103]](#footnote-103) The method for distinguishing protected from non-protected merger material in the case of computer programs as set forth in Whelan states:

The line between idea and expression may be drawn with reference to the end sought to be achieved by the work in question. In other words, *the purpose or function of a utilitarian work would be the work's idea, and everything that is not necessary to that purpose or function would be part of the expression of the idea.[[104]](#footnote-104)*

This test can be more simply stated as finding drawing a line of distinction between idea and expression at the level of the single overarching idea underlying a given work. In Altai on the other hand, a case dealing with the non-literal elements of a computer operating system[[105]](#footnote-105), the court expressed the proper method as follows:

In ascertaining substantial similarity under this approach, a court would first break down the allegedly infringed program into its constituent structural parts. Then, by examining each of these parts for such things as incorporated ideas, expression that is necessarily incidental to those ideas, and elements that are taken from the public domain, a court would then be able to sift out all non-protectable material. Left with a kernel, or possible kernels, of creative expression after following this process of elimination, the court's last step would be to compare this material with the structure of an allegedly infringing program. The result of this comparison will determine whether the protectable elements of the programs at issue are substantially similar so as to warrant a finding of infringement.[[106]](#footnote-106)

This test does a fairly good job of speaking for itself. However, an example of this test as it would be applied to a video gamecould read as follows: (1) The court breaks the video game down into its constituent parts—all the distinct expression, all the distinct mechanics, and all other distinct elements; (2) The court examines all of these elements separately to determine if they are protectable; (3) The court examines the remaining protected material for purposes of similarity.

Tetris equated these two tests to one another, finding them to be ultimately equivalent in nature.[[107]](#footnote-107) However, the actual test in Tetris applies far more of Altai than Whelan in determining the proper level of abstraction for the work in this case. This is good as applying the rules as set forth in Whelan could have led to an incorrect result. In Tetris, the abstract ideas behind the *Tetris* game were expressed as:

A puzzle game where a user manipulates pieces composed of square blocks, each made into a different geometric shape, that fall from the top of the game board to the bottom where the pieces accumulate. The user is given a new piece after the current one reaches the bottom of the available game space. While a piece is falling, the user rotates it in order to fit it in with the accumulated pieces. The object of the puzzle is to fill all spaces along a horizontal line. If that is accomplished, the line is erased, points are earned, and more of the game board is available for play. But if the pieces accumulate and reach the top of the screen, then the game is over.[[108]](#footnote-108)

This analysis has broken apart the elements of the *Tetris* game—as evidenced by combining this list with the later list of expressive elements discussed by the Tetris court;[[109]](#footnote-109) just as recommended in the first step of the Altai test. They then analyzed what parts were protectable; a practice cleaving closely to the second step of the Altai test.[[110]](#footnote-110) Finally, the Tetris court analyzed the remaining material for purposes of similarity, once again following the Altai test.[[111]](#footnote-111) Had the Tetris court followed the Whelan method, they would likely have analyzed the material before them at a very different level of abstraction. This is because the Whelan test follows false assumption that a work only can contain one overarching idea as opposed to an overarching idea that can be expressed by other functional ideas such as game mechanics. This criticism of Whelan as applying an overbroad analysis has been discussed in many scholarly articles.[[112]](#footnote-112) In fact, Tetris itself recognizes one such a case—along with numerous other criticisms of Whelan—in its own discussion.[[113]](#footnote-113) Altai quotes a leading expert in the field, Nimmer[[114]](#footnote-114), on this issue where he states: ““[t]he crucial flaw in [*Whelan* 's] reasoning is that it assumes that only one ‘idea,’ in copyright law terms, underlies any computer program, and that once a separable idea can be identified, everything else must be expression.”[[115]](#footnote-115) However, despite all of this criticism over the Whelan test providing a too high level of abstraction through its overbreadth and simplicity, the Third Circuit continues to follow this test.[[116]](#footnote-116) This misapplication of the laws of copyright coupled with the inconsistency in the analysis performed by the separate Circuits highlights the issues that could lead even a court as generally informed as the Tetris court to get lost in the thickets of copyright treatment in video games.

 Whelan is not the only instance of Tetris cites to a case which does not properly understand the application of copyright law to video games. In Tetris’ discussion of the application of copyright law to video games they cite one other cases that makes some of the same errors as Whelan in their abstraction analysis of a video game—Atari, Inc. v. North American Philips Consumer Elecs.  (hereinafter Philips Consumer Elecs).[[117]](#footnote-117) This cases analyzes the famous *Pac-Man[[118]](#footnote-118)* video game to determine what elements of it are subject to copyright protection.[[119]](#footnote-119) While many elements analyzed by these cases are expression analyzed at a proper level of abstraction, two elements which are provided protection by both cases stand out as instances of the application of improperly high levels of abstraction. The cases begins by analyzing the general idea behind *Pac-Man* as a:

Maze-chase game in which the player scores points by guiding a central figure through various passageways of a maze and at the same time avoiding collision with certain opponents or pursuit figures which move independently about the maze. Under certain conditions, the central figure may temporarily become empowered to chase and overtake the opponents, thereby scoring bonus points.[[120]](#footnote-120)

This is a fairly comprehensive discussion of the fundamental idea behind the *Pac-Man* video game. However, the court in Philips Consumer Elecs fell into a similar trap as the Whelan court. The court here has attempted to encapsulate the entirety of the unprotected idea content of *Pac-Man* into one overarching—albeit complex—statement. In doing this (while much of what was protected was indeed expression) the court in this case treated unprotected game mechanics as expression in and of themselves. Specifically, the court treated the mechanic of the role-reversal of the enemies in the games upon consuming a power up as expression.[[121]](#footnote-121) While their analysis discusses the role-reversal issue in terms of expression[[122]](#footnote-122), they have largely conflated expression with the mechanic. The court compares the horned, antennaed, monsters of the defendant’s game to the ghosts of *Pac-Man*.[[123]](#footnote-123) These creatures look quite a bit different.[[124]](#footnote-124) The expression of when a monster is fleeing during a role-reversal is also quite different.[[125]](#footnote-125) Thus, the similarity stems from the similarity in the unprotected mechanic—an issue of scénes á faire and merger. The court’s analysis in Philips Consumer Elecs is highly focused on the similarity of the functional aspect of the role-reversal mechanic.[[126]](#footnote-126) However, had the court in this case applied the more detailed analysis of abstraction as offered by Altai this mechanic would have been detected as part of the process of breaking the game into all its constituent parts. This case, and its issues in regards to application of a proper level of abstraction, serves to illustrate the dangers of attempting to classify all the ideas behind a work as complicated as a video under one overbroad concept.

 While there have been some cases that have successfully parsed the copyright protections in video games using a similar test to Whelan[[127]](#footnote-127); the fact remains that the courts have demonstrated difficulty in wrestling with the concept of abstraction in copyright. This failure to distinguish between idea and expression common to Whelan and Philips Consumer Elec has led to improper application of the principle of abstraction and thus improper analysis of unprotected material for similarity purposes. This is an issue that can and should be addressed by legislating a standardized method of analyzing video games for abstraction and similarity purposes much like the one suggested by Altai.

1. **Further Examples of a Specific Cases Which Apply an Improperly High Level of Abstraction to Video Games[[128]](#footnote-128)**

This paper has already discussed some of the misunderstandings as to applying copyright law to video in the above discussion of Tetris, Whelan, and Philips Consumer Elecs.[[129]](#footnote-129) However, it is important to note that these misunderstandings are not isolated to these cases. Some examples of cases which apply an inappropriately high level of abstraction in the case of video games include: Stern Electronics, Inc v. Kaufman (hereinafter Stern), Atari, Inc. v. Armenia, Ltd. (hereinafter Armenia), and Spry Fox LLC v. Lolapps, Inc. (hereinafter Spry Fox).

* 1. **Stern Electronics, Inc. v. Kaufman**

In Stern, the plaintiff Stern Electronics was suing defendant Omni Video Games Inc. alleging that defendant’s *Scramble 2* game was infringing on their game *Scramble*.[[130]](#footnote-130) These games were both side-scrolling shooters, with the main character as a space ship shooting enemy ships.

In comparing the two works the Stern court discussed the *Scramble* video game as follows:

A spaceship simultaneously trying to navigate a mountainous airspace, destroy enemy fuel depots, evade deadly ground fire, and prevail in an aerial dogfight, while at the same time watching carefully over a diminishing fuel supply. In essence, the work is a movie in which the viewer participates in the action as the fearless pilot controlling the spaceship.[[131]](#footnote-131)

This analysis is dangerously overbroad. Further, when it came to comparison to *Scramble 2*, the Stern court made no effort whatsoever to separate game mechanics and other unprotected ideas from the expression of the video game. [[132]](#footnote-132) The Stern court also made absolutely no analysis as to what elements of the *Scramble* video game would be necessary to a side-scrolling aerial battle shooter.[[133]](#footnote-133) It is possible that even after this analysis was complete, there would remain sufficient similarities for a finding of infringement. However, the failure to determine a proper level of abstraction has here provided protection for *Scramble* in elements well outside the scope of copyright. The court here merely watched a video of the gameplay of both games side by side and made a snap analysis without sufficient scrutiny of the underlying expression.[[134]](#footnote-134)

* 1. **Atari, Inc. v. Armenia, Ltd.**

Another case that misses the mark on applying proper levels of abstraction is the Armenia case. In Armenia the plaintiff, Atari, was suing the defendant, Armenia, Ltd, claiming the Armenia’s *War of the Bugs* video game infringed on Atari’s popular *Centipedes* video game.[[135]](#footnote-135) The court in this case outright acknowledged that the similarities between the games did not extend to the visual expression of the games.[[136]](#footnote-136) Instead the court relied on the similarity of the method by which the bugs traveled and the method by which the bugs fired shots.[[137]](#footnote-137) This a clear case of applying an improper level of abstraction to the video games in question. The court in Armenia has exclusively analyzed game mechanics in the place of expression.

* 1. **Spry Fox LLC v. Lolapps, Inc.**

The courts’ confusion is not limited to older cases however, as is seen in the 2012 case of Spry Fox. In Spry Fox, the plaintiff was accusing the defendant, 6Waves, of infringing its video game “Triple Town” with its own offering “Yeti Town.”[[138]](#footnote-138) The games are both games of the tile-matching genre.[[139]](#footnote-139) In other words, both games involve attempting to match tiles of the same type.[[140]](#footnote-140) In both games, once three similar tiles are matched, the tiles merge into a tile of one tier higher in a hierarchy of tiles.[[141]](#footnote-141) These higher tier tiles can be placed three together to create one tile even higher in the hierarchy and so on.[[142]](#footnote-142) The games share other similarities in game mechanics including: an antagonist which frustrates the players ability to place an object where they choose, a means of hindering this antagonist, an object capable of destroying any specific, dialogue boxes explaining game mechanics, and an in-game store.[[143]](#footnote-143) It is no coincidence that these games share so many mechanics, *Yeti Town* is designed to be what is called a “clone” of *Triple Town*, a game which seeks to capitalize on the success of a game by making a different game of similar functionality.[[144]](#footnote-144)



Fig. C—*Triple Town* and *Yeti Town* side by side.[[145]](#footnote-145)

 The court in Spry Fox acknowledged that the visual expression of the two games was substantially different.[[146]](#footnote-146) The appearance of the games, as seen above, is not particularly close. The tiers in the hierarchy are entirely different objects for both of the games.[[147]](#footnote-147) In fact, *Yeti Town* expresses no mechanic in a particularly similar fashion to *Triple Town*.[[148]](#footnote-148) For instance, the means of destroying any object in *Triple Town* is an “Imperial Bot” while in *Yeti Town* the player uses a campfire.[[149]](#footnote-149) However, the Spry Fox court (after a full discussion of the issues of idea-expression[[150]](#footnote-150)), still chose to focused on the object hierarchy mechanic in making its determination of similarity.[[151]](#footnote-151) While the court made several keen observations on the issues of idea-expression[[152]](#footnote-152), this is still a clear example of applying an improperly high level of abstraction. The court in this case also reveals its confusion on this issue by comparing the video game mechanics to the plot of a book.[[153]](#footnote-153) While there is an issue of abstraction in determining how much protection a plot in a book may receive, the issue in this case is the thin protection a functional mechanic receives under the doctrines of merger and scénes á faire. The courts are still having difficulty grappling with the issues of abstraction as applied to video games when it comes to distinguishing expression from game mechanic.

1. **Examples of a Properly Applied Level of Abstraction in Video Games**

This paper would assert that, while complicated at first blush, determining what parts of video games exist at a protectable level of abstraction is fairly straightforward. In fact, this would argue that it is so straightforward that a uniform rule could be applied to the treatment of video games. What’s more, such a rule should be adopted via legislation in order to standardize the Circuit’s treatment of this issue and avoid the substantial legal inconsistencies and economic harm that will detailed later in this paper.[[154]](#footnote-154) In furtherance of the above assertion, this paper will offer abstraction analysis for two contemporary video games: *Bastion* and *Prince of Persia: Sands of Time.* These analyses will not cover every expressive aspect of these games, but will address the method of performing an abstraction analysis and some potentially tricky situations where expression and game mechanic are closely intertwined.

* 1. ***Bastion***

*Bastion* is an action-roleplaying video game; its most distinct feature is a narrator who narrates your every action as you do it.[[155]](#footnote-155) It is set in a post-apocalyptic fantasy world that appears under your feet as you go forward as you progress through most of the stages.[[156]](#footnote-156) The main character gains levels, weapons, and abilities as he defeats enemies and progresses.[[157]](#footnote-157)

The process would begin by separating the game into constituent elements. In this example a list might include, but not necessarily be limited to, the art, the music, the narration method, the narration itself, the ability to gain levels, weapons and abilities in return for in-game actions the world, and the setting.

The next step would require a determination of what of these elements is copyright protected. The proper level of abstraction does not include ideas but does include expression independent of those ideas. For instance, the concept of a post-apocalyptic fantasy world is certainly not copyright protected. However, the music to the game certainly would be protected. What lies in between is where game mechanics and expression begin to overlap and the limited protection provided under merger doctrine and scénes á faire would apply. The responsive narration in *Bastion* is a good example of one such situation where game mechanic and expression intertwine. Were another game, even a post-apocalyptic fantasy action-RPG, were to use narration that follows the actions of the main character this would not by itself create similarity for infringement purposes as the mechanic itself is not what is analyzed. What the court would need to look to is the similarity of the actual expression of that narration.

Once the court has determined what is protected expression, they may compare that expression to the accused. For purposes of example, the mechanic of responsive narration once again can provide a fruitful analysis. If the accused game verbatim copied sections of narration dialogue this would certainly be copying of protected expression under the limited protections offered by scénes á faire and merger doctrine. What’s more, if the expression of the accused game was sufficiently similar in style, content, tone, and other elements, to the narration of *Bastion* this similarity of expression could create a reasonable finding of copying of protected expression. However, under the limited protections under merger and scénes á faire, this similarity would have to be very substantial.

* 1. ***Prince of Persia: Sands of Time***

*Prince of Persia: Sands of Time* is an action-adventure, platformer[[158]](#footnote-158) video game.[[159]](#footnote-159) The game takes place in ancient Persia and includes a notable mechanic of allowing the main character to slow, stop, or reverse time within the game.[[160]](#footnote-160)

The method of analysis would be the same as discussed above in reference to *Bastion*. Examples of the elements of the game might include, but again not necessarily be limited to, platforming, combat mechanics, the time manipulation mechanic, the background design, the character design, the music, and the setting. The overarching concept of platforming would certainly not be protected. The character design, background design, and music certainly would be protected. The combat mechanics and time manipulation mechanics would be treated similarly to the responsive narration mechanic in *Bastion* in that they would receive thin protection on their actual expression and against extremely similar expressions. However, were another game to include a time manipulation mechanic that was functionally equivalent but expressed differently it would not be infringing on *Prince of Persia: Sands of Time*’s copyright.

1. **Courts’ Application of Improper Level of Abstraction to Video Games is Inconsistent with the Legal Intent Behind Copyright Law**

This paper has asserted above that where the courts fail to apply a proper level of abstraction it is blatantly inconsistent with the intent behind copyright law.[[161]](#footnote-161) This paper has also worked to show instances where the courts’ decisions are out of line with the underlying case law and legal concepts.[[162]](#footnote-162) This section will endeavor to provide further support for this assertion.

The level of abstraction applied by the courts in cases dealing with game mechanics—such as those discussed in this paper—flies in the face of the doctrines of the idea-expression dichotomy. Copyright law does not protect ideas, methods of operation, procedures, or concepts[[163]](#footnote-163) both because of the extremely broad monopoly provided by copyright and because that is the type of material that is properly protected by patent law.[[164]](#footnote-164) In fact, game mechanics are commonly patented. For example, the video game company Square Enix—the maker of the famous *Final Fantasty* RPG video game series[[165]](#footnote-165)--has several patents on video game mechanics.[[166]](#footnote-166) Some examples of such patents are the patents they possess on a system called “Action Time Battle” (ATB) where, on the battle screen, each character has an ATB meter that gradually fills, and the player is allowed to issue a command to that character once the meter is full.[[167]](#footnote-167) The courts, by giving copyright protection to game mechanics through their confusion in regards to abstraction, a providing patent protection with the strength, ease of acquisition, and duration of copyright law. The normal level of protection provided copyright protects by copyright protects against infringement by similar works.[[168]](#footnote-168) The protection of a patent, on the other hand, protects only against infringement where a party duplicates all the elements of a claim of the patent.[[169]](#footnote-169) Getting a patent is also quite a bit more complicated than registering a copyright. While copyright protects vests automatically at the creation of a work[[170]](#footnote-170); the requirements for registering a copyright in a work include: filing by mail or in person and paying a $35 fee for a single author work or a $55 fee for all other registration.[[171]](#footnote-171) Registering a patent is an extremely lengthy (generally multiple year) process that involves many laborious steps and rigorous examination of your patent and patent claims for validity under patent law by the United States Patent and Trademark Office (PTO).[[172]](#footnote-172) Where the protection of a patent lasts for 20 years, the protections of a copyright last for the life of the author plus 70 years (or for a work for hire made for a corporation 95 years from first publication or 120 years from creation—whichever comes first).[[173]](#footnote-173)

 Patent and Copyright are distinct for a reason, even this brief comparison of the two should make it clear that the two are far from interchangeable. It is against the legal intent behind these two bodies of law to provide copyright protection on material that should be seeking a patent. If a game mechanic is unable to get a patent via means of the PTO, the owner of the video game should not be able to circumvent the process by appealing to the courts on grounds of copyright infringement. However, this is exactly what is happening when the courts improperly apply a level of abstraction above what is protected by copyright.

1. **Court’s Application of Improper Level of Abstraction to Video Games Causes Substantial Economic Harm[[174]](#footnote-174)**

The legal inconsistency of the Court’s practice when it comes to applying levels of abstraction to video games is a serious issue and of itself. However, this inconsistency of legal intent also sheds light on the much more complicated economic issues of over rewarding inventors who should be seeking patent protections with the longer duration of copyright protection. In examining this, one must first evaluate the economic justifications for the current limitations on duration of both patent and copyright.

The economic benefit of any particular invention is the difference between the social welfare it creates and its costs.[[175]](#footnote-175) It is logical that it would be preferable if every invention that creates net social benefit would be invented.[[176]](#footnote-176) It is also logical to reward inventors for the benefit they create for society.[[177]](#footnote-177) However, available systems of rewarding inventors have costs associated with them that can cause net social benefit to diverge from net private benefit.[[178]](#footnote-178) The patent system, and all its provisos, represents the government’s attempt to maximize the amount of inventions creating social benefit made while minimizing situations where society loses benefit because of the nature of the patent system.[[179]](#footnote-179) This is further supported by the Constitutional precedent, discussed above, from which congress draws its authority to legislate on the issue of patent law.[[180]](#footnote-180)

It is this weighing of benefits to costs that explains the economic justification behind the limitation of patents to a 20-year duration. After all, if the goal of the patent system is to create as many beneficial inventions as possible, it stands to reason that the most possible inventions will be made when there is no limitation whatsoever on the duration of a patent.[[181]](#footnote-181) Further, duration is certainly one of the most direct method congress has at its disposal of increasing or decreasing the scope of the patent rights granted to inventors.[[182]](#footnote-182) However, creating maximum inventions is not the only consideration in designing a patent system.[[183]](#footnote-183) When analyzed from the point of view of balancing the benefits to the inventors with the benefit to society, long patent terms are simply inefficient.[[184]](#footnote-184) From a purely economic standpoint, a patent must create at least as much money as invested in the invention’s creation in order to be invented.[[185]](#footnote-185) However, expected patent profits distant in time have less incentive power as they must outweigh the value of that money investment as increased by interest or the amount that money could make through other investments.[[186]](#footnote-186) This creates consistently scaling cost for society, while the incentive created for inventors tapers off over time.[[187]](#footnote-187) Thus, “social welfare generated by more costly patents will eventually no longer offset the loss induced by the extension of existing monopolies.”[[188]](#footnote-188) With these considerations in mind, the legislating bodies have reached a determination that the ideal duration in balancing incentive to inventors with social welfare is 20-years.

Copyright law has similar goals to patent, but in the pursuit of creating artistic works in order to promote social welfare.[[189]](#footnote-189) Thus, the economic analysis of the duration of a copyright balances short-term losses with long-run gains in welfare, just as patent law does.[[190]](#footnote-190) However, copyright has limited scope, protecting expression as opposed to ideas—which are protected by patent.[[191]](#footnote-191) Thus, to compensate for the creators lower profit throughout the term due to this limited scope, the term is much longer.[[192]](#footnote-192) There are arguments for more political reasons for the duration of copyright[[193]](#footnote-193), but this is the economic explanation for the duration of copyright term.

The term of patent protection is calculated to maximize the social welfare created by the patent system. The copyright system’s extended duration is due to the limited protections a copyright provides as opposed to patent protection. From a purely economic viewpoint, the Court’s current practice regarding applying levels of abstraction to video games over-rewards creators. In fact, it provides creators a minimum of greater than three times the proper value of their creation. While the accuracy of a one-size-fits-all patent system may be questioned[[194]](#footnote-194) it is extremely unlikely that the current duration under-rewards this substantially. The Court’s practice in regards to levels of abstraction is highly economically inefficient in terms of social welfare.

1. **Conclusion—A Standardized Test and Standardized Treatment**

The analysis above offers evidence of the economic damage and legal error behind the courts treating applying an improper level of abstraction in analyzing the copyright treatment of video games and specifically video game mechanics. Whether this is a practice common to all the courts, caused by confusion of the underlying law, or simply confusion stemming from the inconsistencies between the Circuits is immaterial—a damage is being done to society by this error. This raises the question—what steps could be immediately taken to work to ensure this type of error does not occur in the future? The simplest solution, and the solution advocated by this paper, would be to legislate both instructions for abstraction as discussed in the examples of *Bastion* and *Prince of Persia: Sands of Time* above and a concrete test for analyzing the elements of video games to determine what elements are copyright protected. The Altai test is particularly concise and clear while still providing a properly in-depth level of scrutiny in order to avoid improper abstraction analysis via overbreadth. While applying copyright law to video games will always be complicated by the very nature of video games, the adoption of these two steps will make a substantial difference in ensuring all the courts have clarity on the proper level of abstraction to apply for both games and their mechanics.

1. *See generally* 17U.S.C (2002). [↑](#footnote-ref-1)
2. For a more complete discussion of copyright law: *See generally* Robert Gorman, Copyright Law, (2006), *available at* https://public.resource.org/scribd/8763709.pdf. [↑](#footnote-ref-2)
3. *U.S. Const. art. 1 § 8*. [↑](#footnote-ref-3)
4. 17 U.S.C. § 106 (2002). [↑](#footnote-ref-4)
5. 17 U.S.C § 501-13 (2002). [↑](#footnote-ref-5)
6. Feist Publications, Inc. v. Rural Tel. Serv. Co., 499 U.S. 340, 361, 111 S. Ct. 1282, 1296, 113 L. Ed. 2d 358 (1991). [↑](#footnote-ref-6)
7. 17 U.S.C. § 201-6 (2002). [↑](#footnote-ref-7)
8. *See* Transgo, Inc. v. Ajac Transmission Parts Corp., 768 F.2d 1001, 1018 (9th Cir. 1985). [↑](#footnote-ref-8)
9. *See* Concrete Machinery Co. v. Classic Lawn Ornaments, Inc., 843 F.2d 600, 607 (1st Cir. 1988); Robert C. Osterberg & Eric C. Osterberg, SUBSTANTIAL SIMILARITY IN COPYRIGHT LAW § 3:1.2-3 (2012). [↑](#footnote-ref-9)
10. S*ee* Three Boys Music Corp. v. Bolton, 212 F.3d 477, 485 (9th Cir.2000). [↑](#footnote-ref-10)
11. *See* Id. [↑](#footnote-ref-11)
12. *See* Lotus Dev. Corp. v. Borland Int'l, Inc., 49 F.3d 807, 814 (1st Cir. 1995) aff'd, 516 U.S. 233, 116 S. Ct. 804, 133 L. Ed. 2d 610 (1996). [↑](#footnote-ref-12)
13. *See* Id. [↑](#footnote-ref-13)
14. Computer Associates Int'l, Inc. v. Altai, Inc., 982 F.2d 693, 706 (2d Cir. 1992). [↑](#footnote-ref-14)
15. *See* 17 U.S.C. 102 (2002). [↑](#footnote-ref-15)
16. *See* 17 U.S.C. 102(a) (2002). [↑](#footnote-ref-16)
17. *See* 17 U.S.C. 102(b) (2002). [↑](#footnote-ref-17)
18. Id. [↑](#footnote-ref-18)
19. *See* Apple Computer, Inc. v. Franklin Computer Corp., 714 F.2d 1240, 1252 (3d Cir. 1983). [↑](#footnote-ref-19)
20. *See* Baker v. Selden, 101 U.S. 99, 104, 25 L. Ed. 841 (1879). [↑](#footnote-ref-20)
21. *See* Id. [↑](#footnote-ref-21)
22. *See* Herbert Rosenthal Jewelry Corp. v. Kalpakian, 446 F.2d 738, 741 (9th Cir. 1971). [↑](#footnote-ref-22)
23. *See* Id. [↑](#footnote-ref-23)
24. *See* Id. at 742. [↑](#footnote-ref-24)
25. *See* Kay Berry, Inc. v. Taylor Gifts, Inc., 421 F.3d 199, 209 (3d Cir. 2005). [↑](#footnote-ref-25)
26. *See* Id. [↑](#footnote-ref-26)
27. *See* Herbert Rosenthal Jewelry Corp. v. Grossbardt, 436 F.2d 315, 316 (2d Cir. 1970)(Finding infringement where a bee pin, which had been ruled unprotected under merger doctrine in a separate case, was recreated using a rubber mold of said bee pin). [↑](#footnote-ref-27)
28. Whelan Associates, Inc. v. Jaslow Dental Lab., Inc., 797 F.2d 1222, 1236 (3d Cir. 1986)(citing Atari, Inc. v. North American Philips Consumer Elecs. Corp*.,* 672 F.2d 607, 616 (7th Cir.);See v. Durang*,* 711 F.2d 141, 143 (9th Cir.1983). [↑](#footnote-ref-28)
29. *See*Landsberg v. Scrabble Crossword Game Players, Inc*.,* 736 F.2d 485, 489 (9th Cir.); Durang*,* 711 F.2d at 143; Hoehling v. Universal City Studios, Inc*.,* 618 F.2d 972, 979 (2d Cir.1980). [↑](#footnote-ref-29)
30. *See generally* Hoehling v. Universal City Studios, Inc*.,* 618 F.2d 972 (2d Cir.1980). [↑](#footnote-ref-30)
31. *See* Id. at 975-6. [↑](#footnote-ref-31)
32. *See* Id. at 974. [↑](#footnote-ref-32)
33. *See* Id. [↑](#footnote-ref-33)
34. Id. at 9. [↑](#footnote-ref-34)
35. Id. [↑](#footnote-ref-35)
36. *See* Id. [↑](#footnote-ref-36)
37. For a less in-depth, but excellent, analysis of many of the cases in this paper with a specific focus on advising game developers how to navigate copyright law on the issue of “clone” games: *See* Stephen C. McArthur, *Clone Wars: The Five Most Important Cases Every Game Developer Should Know,* (Oct. 14, 2014 11:01 PM), *available at* http://www.gamedevelopment.com/view/feature/187385/clone\_wars\_the\_five\_most\_.php?print=1. [↑](#footnote-ref-37)
38. Altai, 982 F.2d 702. [↑](#footnote-ref-38)
39. *See eg.* Atari v. Amusement World Inc*.*, 547 F.Supp. 222 (D. Md. Nov. 27, 1981); Data East USA, Inc. v. Epyx, Inc*.*, 862 F.2d 204 (9th Cir. 1988); Capcom U.S.A. Inc. v. Data East Corp., 1994 WL 1751482 (N.D. Cal. 1994); Atari Games Corp. v. Nintendo of Am. Inc., 975 F.2d 832 (Fed. Cir. 1992); Sega Enters. v. Accolade, Inc., 977 F.2d 1510 (9th Cir. 1992); Tetris Holding, LLC v. Xio Interactive, Inc., 863 F. Supp. 2d 394 (D.N.J. 2012); Spry Fox LLC v. Lolapps, Inc., 2:12-cv-00147-RAJ (W.D. Wash. Sept. 18, 2012)(available at http://digitalcommons.law.scu.edu/cgi/viewcontent.cgi?article=1150&context=historical). [↑](#footnote-ref-39)
40. *See generally* Atari v. Amusement World Inc*.*, 547 F.Supp. 222 (D. Md. Nov. 27, 1981). [↑](#footnote-ref-40)
41. Id. at 223. (For those unfamiliar with the game “Asteroids” a free version of the game can be found at http://www.freeasteroids.org/). [↑](#footnote-ref-41)
42. *See* Id. at 224. [↑](#footnote-ref-42)
43. For a video of the “Meteors” game being played: https://www.youtube.com/watch?v=jotEgcEY6-w (Gameplay starts at 2:13 in the video. [↑](#footnote-ref-43)
44. *See* Atari 547 F.Supp at 224. [↑](#footnote-ref-44)
45. *See* Id. at 226. [↑](#footnote-ref-45)
46. Id. [↑](#footnote-ref-46)
47. Id. [↑](#footnote-ref-47)
48. *See* Id. at 226-7. [↑](#footnote-ref-48)
49. *See* Id. at 227. [↑](#footnote-ref-49)
50. *See* Id. [↑](#footnote-ref-50)
51. Id. [↑](#footnote-ref-51)
52. *See* Id. at 230. [↑](#footnote-ref-52)
53. *See* Id. at 229. [↑](#footnote-ref-53)
54. Id. at 227. [↑](#footnote-ref-54)
55. *Infra* § 4-7. [↑](#footnote-ref-55)
56. Atari, 547 F.Supp. at 229. [↑](#footnote-ref-56)
57. Id. [↑](#footnote-ref-57)
58. *See* Id. at 228-9. [↑](#footnote-ref-58)
59. *Supra* § 2(b) and (c). [↑](#footnote-ref-59)
60. *See generally* Data E. USA, Inc. v. Epyx, Inc., 862 F.2d 204 (9th Cir. 1988). [↑](#footnote-ref-60)
61. For a playable example of this game look to: http://game-oldies.com/play-online/karate-champ-nintendo-nes# (ADD BRIEF NOTE ABOUT FAIR USE EXCEPTION FOR NON-PROFIT EDUCATIONAL USE) [↑](#footnote-ref-61)
62. *See* Epyx, Inc., 862 F.2d at 205; For a playable example of World Karate Championship look to: http://www.xlatari.com/game.php?id=2465. [↑](#footnote-ref-62)
63. *See* Epyx, Inc., 862 F.2d at 208-9. [↑](#footnote-ref-63)
64. *See* Id. [↑](#footnote-ref-64)
65. Id. at 209. [↑](#footnote-ref-65)
66. *See* Id. [↑](#footnote-ref-66)
67. Id. (citing Sid & Marty Krofft Television Products, Inc. v. McDonald's Corp*.,* 562 F.2d 1157, 1168 (9th Cir.1977)). [↑](#footnote-ref-67)
68. *See* Id*.* [↑](#footnote-ref-68)
69. *See* Tetris Holding, LLC v. Xio Interactive, Inc., 863 F. Supp. 2d 394, 404 (D.N.J. 2012). [↑](#footnote-ref-69)
70. Id. [↑](#footnote-ref-70)
71. *See generally* Id. at 401-3. [↑](#footnote-ref-71)
72. *See* Id. at 396. [↑](#footnote-ref-72)
73. Id. at 397. [↑](#footnote-ref-73)
74. Id. at 410. [↑](#footnote-ref-74)
75. Id. at 399. [↑](#footnote-ref-75)
76. *See* Id. at 400. [↑](#footnote-ref-76)
77. *See* Id. at 401. [↑](#footnote-ref-77)
78. *See* Id. [↑](#footnote-ref-78)
79. Id. at 403. [↑](#footnote-ref-79)
80. *See* Id. [↑](#footnote-ref-80)
81. *See* Id. at 404 (citing *Atari Games Corp. v. Oman,* 979 F.2d 242, 245 (D.C.Cir.1992)(“The hallmark of a video game is the expression found in ‘the entire effect of the game as it appears and sounds,’ its ‘sequence of images.’ ”) (per then-Judge Ginsburg); *Atari, Inc. v. North American Philips Consumer Electronics Corp.,* 672 F.2d 607, 617 (7th Cir.1982) (finding copyright protection extends “to at least a limited extent the particular form in which [a game] is expressed (shapes, sizes, colors, sequences, arrangements, and sounds)” and holding that defendant's use of similar video game characters infringed plaintiff's copyright); *Midway,* 546 F.Supp. at 139 (finding graphical characters of video game were protectible expression); *Durham Industries, Inc. v. Tomy Corp.,* 630 F.2d 905, 913 (2d Cir.1980) (discussing copyright as applied to games and stating that “[j]ust as copyright protection extends to expression but not ideas, copyright protection extends only to the artistic aspects, but not the mechanical or utilitarian features, of a protected work.”)). [↑](#footnote-ref-81)
82. *See* Id. at 406-7. [↑](#footnote-ref-82)
83. Id. [↑](#footnote-ref-83)
84. Id. at 410 [↑](#footnote-ref-84)
85. *See* Id. [↑](#footnote-ref-85)
86. *See* Id. at 411. [↑](#footnote-ref-86)
87. *See* Id. at 412-3. [↑](#footnote-ref-87)
88. *See* Id. at 416. [↑](#footnote-ref-88)
89. *Supra* note 81. [↑](#footnote-ref-89)
90. *Supra* note 65. [↑](#footnote-ref-90)
91. *See* Tetris, 863 F. Supp. 2d at 408. [↑](#footnote-ref-91)
92. Id. [↑](#footnote-ref-92)
93. *See* Sid & Marty Krofft Television Prods., Inc. v. McDonald's Corp., 562 F.2d 1157, 1169 (9th Cir. 1977)(superseded by statute on many issues, but not on the issue of real-world versus fanciful expression). [↑](#footnote-ref-93)
94. *Supra* note 24, 25, 27. [↑](#footnote-ref-94)
95. *Supra* note 27. [↑](#footnote-ref-95)
96. *See* http://www.valvesoftware.com/games/portal.html. [↑](#footnote-ref-96)
97. *Supra* note 81. [↑](#footnote-ref-97)
98. *Supra* note 65. [↑](#footnote-ref-98)
99. *Supra* note 65. [↑](#footnote-ref-99)
100. The only exception to this is that Tetris failed to distinguish that the display of the next piece to fall, a clear game mechanic, is protectable only insofar as its actual expression. [↑](#footnote-ref-100)
101. Tetris, 863 F. Supp. 2d at 401. [↑](#footnote-ref-101)
102. *See* Whelan 797 F.2d at 1224. [↑](#footnote-ref-102)
103. *See* Id. at 1236. [↑](#footnote-ref-103)
104. Id. (emphasis in original). [↑](#footnote-ref-104)
105. *See* Altai 982 F.2d at 720-1. [↑](#footnote-ref-105)
106. *See* Id. at 706. [↑](#footnote-ref-106)
107. *See* Tetris 863 F. Supp. 2d at 401. [↑](#footnote-ref-107)
108. *See* Id. at 409. [↑](#footnote-ref-108)
109. *See generally* Id. at 410-415. [↑](#footnote-ref-109)
110. *See* Id. [↑](#footnote-ref-110)
111. *See* Id. [↑](#footnote-ref-111)
112. *See* Donald F. Mcgahn II, Copyright Infringement of Protected Computer Software: An Analytical Method to Determine Substantial Similarity, 21 Rutgers Computer & Tech. L.J. 88, 110 (1995); Thomas M. Gage, Note, Whelan Associates v. Jaslow Dental Laboratories: Copyright Protection for Computer Software Structure—What's the Purpose?*,* 1987 WIS.L.REV. 859, 860–61 (1987); Steven R. Englund, Note, Idea, Process, or Protected Expression?: Determining the Scope of Copyright Protection of the Structure of Computer Programs*,* 88 MICH.L.REV. 866, 881 (1990); Peter S. Menell, An Analysis of the Scope of Copyright Protection for Application Programs*,* 41 STAN.L.REV. 1045, 1074 (1989); Mark T. Kretschmer, Note, Copyright Protection For Software Architecture: Just Say No!*,* 1988 COLUM.BUS.L.REV. 823, 837–39 (1988); Peter G. Spivack, Comment, Does Form Follow Function? The Idea/Expression Dichotomy In Copyright Protection of Computer Software*,* 35 U.C.L.A.L.REV. 723, 747-55 (1988).  [↑](#footnote-ref-112)
113. *See* Tetris 863 F. Supp. 2d at 401 (citing  Sega Enters. v. Accolade, Inc*.,* 977 F.2d 1510, 1525 (9th Cir.1992) (“The Whelan rule, however, has been widely—and soundly—criticized as simplistic and overbroad.”); Gates Rubber Co. v. Bando Chem. Indus.*,* 9 F.3d 823, 840, n. 17 (10th Cir.1993);  Plains Cotton Coop. Ass'n v. Goodpasture Computer Serv., Inc*.,* 807 F.2d 1256, 1262 (5th Cir.1987).  [↑](#footnote-ref-113)
114. *See* http://www.iphalloffame.com/inductees/2006/Melville\_Nimmer.aspx. [↑](#footnote-ref-114)
115. Altai 982 F.2d at 705 (citing 3 Nimmer § 13.03(F), at 13–62.34). [↑](#footnote-ref-115)
116. *See* Southco, Inc. v. Kanebridge Corp., 390 F.3d 276 (3d Cir.2004). [↑](#footnote-ref-116)
117. *See* Tetris 863 F. Supp. 2d at 407. [↑](#footnote-ref-117)
118. For a playable example of the *Pac-Man* game: *See* http://www.goriya.com/flash/pacman/pacman.shtml. [↑](#footnote-ref-118)
119. *See generally* Atari, Inc. v. N. Am. Philips Consumer Electronics Corp., 672 F.2d 607 (7th Cir. 1982). [↑](#footnote-ref-119)
120. *See* Id. at 617. [↑](#footnote-ref-120)
121. *See* Id. at 612. [↑](#footnote-ref-121)
122. *See* Id. [↑](#footnote-ref-122)
123. *See* Id. [↑](#footnote-ref-123)
124. *See Supra* at note 118; For an example of the defendant’s game *K.C. Munchkin*: https://www.youtube.com/watch?v=07JtE4pIq8U. [↑](#footnote-ref-124)
125. *See* Id. [↑](#footnote-ref-125)
126. *See* Philips Consumer Elecs., 672 F.2d at 612. [↑](#footnote-ref-126)
127. *See generally* Midway Mfg. Co. v. Bandai-Am., Inc., 546 F. Supp. 125 (D.N.J. 1982). [↑](#footnote-ref-127)
128. For a discussion of some of the cases in this section in the context of a more general analysis of the copyright treatment of video: *See* Thomas M.S. Hemnes, The Adaptation of Copyright Laws to Video Games*,* 131 U. Pa. L. Rev. 171, 184 (1982) [↑](#footnote-ref-128)
129. *Supra* § 3. [↑](#footnote-ref-129)
130. *See* Stern Electronics, Inc. v. Kaufman, 523 F. Supp. 635, 637 (E.D.N.Y. 1981). [↑](#footnote-ref-130)
131. Id. at 638-9. [↑](#footnote-ref-131)
132. *See generally* Id.; *See* Hemnes at 182-3. [↑](#footnote-ref-132)
133. *See* Id. [↑](#footnote-ref-133)
134. *See* Stein at 639. [↑](#footnote-ref-134)
135. *See* Atari, Inc. v. Armenia, Ltd., 81 C 6099, 1981 WL 1388 (N.D. Ill. Nov. 3, 1981). [↑](#footnote-ref-135)
136. *See* Id. at 2. [↑](#footnote-ref-136)
137. *See* Hemnes at 184-5; Armenia,Ltd., 81 C 6099 at 2. [↑](#footnote-ref-137)
138. *See* Spry Fox, LLC v. Lolapps, Inc., No. C12-147RAJ, 1-2 (2012 U.S. Dist. W.D. Wash.) (available at http://digitalcommons.law.scu.edu/cgi/viewcontent.cgi?article=1150&context=historical). [↑](#footnote-ref-138)
139. *See Supra* note 37. [↑](#footnote-ref-139)
140. *See* Id. [↑](#footnote-ref-140)
141. *See* Id; Spry Fox at 3. [↑](#footnote-ref-141)
142. *See* Id. [↑](#footnote-ref-142)
143. *See* Spry Fox at 3. [↑](#footnote-ref-143)
144. *See Supra* at note 37. [↑](#footnote-ref-144)
145. *See* Id. [↑](#footnote-ref-145)
146. *See* Spry Fox at 4. [↑](#footnote-ref-146)
147. *See* Id. at 3-4. [↑](#footnote-ref-147)
148. *See generally* Id. [↑](#footnote-ref-148)
149. *See* Id. at 3. [↑](#footnote-ref-149)
150. *See generally* Id. at 6-9. [↑](#footnote-ref-150)
151. *See* Id. at 10. [↑](#footnote-ref-151)
152. *See generally* Id. at 6-9. [↑](#footnote-ref-152)
153. *See* Id. at 11. [↑](#footnote-ref-153)
154. *Infra* § 6, 7. [↑](#footnote-ref-154)
155. *See* http://supergiantgames.com/index.php/media/. [↑](#footnote-ref-155)
156. *See* Greg Miller, Bastion Review: The Download Everybody is Talking About (2011) *available at* http://www.ign.com/articles/2011/08/22/bastion-review. [↑](#footnote-ref-156)
157. *See* Id. [↑](#footnote-ref-157)
158. This is a game which involves controlling an avatar to traverse platforms, obstacles, or other challenges requiring acrobatic navigation. [↑](#footnote-ref-158)
159. *See* http://www.ubi.com/US/Games/Info.aspx?pId=657. [↑](#footnote-ref-159)
160. *See* Id. [↑](#footnote-ref-160)
161. *Supra* § 1. [↑](#footnote-ref-161)
162. *Supra* § 2-4. [↑](#footnote-ref-162)
163. 17 U.S.C. 102(b) (2002). [↑](#footnote-ref-163)
164. *See* Patent Subject Matter Eligibility *available at* http://www.uspto.gov/web/offices/pac/mpep/s2106.html. [↑](#footnote-ref-164)
165. *See* http://na.square-enix.com/us/games. [↑](#footnote-ref-165)
166. *See eg* Patent US5390937 (available at http://www.google.com/patents/US5390937); Patent US756894 (available at http://www.google.com/patents/US7568974). [↑](#footnote-ref-166)
167. *See* Id. [↑](#footnote-ref-167)
168. *Supra* § 2. [↑](#footnote-ref-168)
169. *See* About Patent Infringement (*available at* http://www.uspto.gov/patents/litigation/What\_is\_Patent\_Infringement.jsp). [↑](#footnote-ref-169)
170. 17 U.S.C. § 302(a). [↑](#footnote-ref-170)
171. *See* Registering a Copyright with the US Copyright Office (*available at* http://www.copyright.gov/fls/sl35.pdf). [↑](#footnote-ref-171)
172. *See* Patent Process Overview (*available at* http://www.uspto.gov/patents/process/ppo\_textonly.jsp) [↑](#footnote-ref-172)
173. 17 U.S.C. § 302. [↑](#footnote-ref-173)
174. For a substantially more complete analysis of the economic implications and efficiency of the intellectual property system: *See generally* Francois Léveque and Yann Méniére, The Economics of Patents and Copyright, (2004), *available at* http://www.microeconomix.fr/sites/default/files/import2/2004-07%20The%20Economics%20of%20Patents%20and%20Copyright.pdf. [↑](#footnote-ref-174)
175. *See* Id. at 20. [↑](#footnote-ref-175)
176. *See* Id. [↑](#footnote-ref-176)
177. *See* Id. [↑](#footnote-ref-177)
178. *See* Id. [↑](#footnote-ref-178)
179. *See* Id. [↑](#footnote-ref-179)
180. *Supra* note 3. [↑](#footnote-ref-180)
181. *See* Léveque at 25. [↑](#footnote-ref-181)
182. *See* Id. [↑](#footnote-ref-182)
183. *See* Id. at 20. [↑](#footnote-ref-183)
184. *See* Id. at 26. [↑](#footnote-ref-184)
185. *See* Id. [↑](#footnote-ref-185)
186. *See* Id. at 26-7. [↑](#footnote-ref-186)
187. *See* Id. at 27. [↑](#footnote-ref-187)
188. Id. [↑](#footnote-ref-188)
189. *Supra* note 3. [↑](#footnote-ref-189)
190. *See* Léveque at 85. [↑](#footnote-ref-190)
191. *See* Id. at 67-68. [↑](#footnote-ref-191)
192. *See* Id. [↑](#footnote-ref-192)
193. *See* Steve Schlackman, How Mickey Mouse Keeps Changing Copyright Law ,(2014)(*available at* http://artlawjournal.com/mickey-mouse-keeps-changing-copyright-law/) [↑](#footnote-ref-193)
194. *See* Léveque at 29. [↑](#footnote-ref-194)