

19-3160-cv

Anas Osama Ibrahim Abdin v. CBS Broadcasting Inc., et al.

UNITED STATES COURT OF APPEALS
FOR THE SECOND CIRCUIT

August Term 2019

(Submitted: May 14, 2020 Decided: August 17, 2020)

Docket No. 19-3160-cv

ANAS OSAMA IBRAHIM ABDIN,

Plaintiff-Appellant,

v.

CBS BROADCASTING INC., NETFLIX, INC., CBS CORPORATION,
CBS INTERACTIVE, INC.,

Defendants-Appellees.

ON APPEAL FROM THE UNITED STATES DISTRICT COURT
FOR THE SOUTHERN DISTRICT OF NEW YORK

Before: CHIN AND CARNEY, *Circuit Judges*, AND DOOLEY, *District Judge*.*

* Judge Kari A. Dooley, of the United States District Court for the District of Connecticut, sitting by designation.

Appeal from a judgment of the United States District Court for the Southern District of New York (Schofield, J.), dismissing plaintiff-appellant's third amended complaint pursuant to Federal Rule of Civil Procedure 12(b)(6). Plaintiff-appellant alleged that defendants-appellees violated the Copyright Act, 17 U.S.C. § 101 *et seq.*, by copying creative aspects from his unreleased science fiction videogame, including his use of a tardigrade -- a microscopic animal -- traveling in space, in their television series *Star Trek: Discovery*. The district court concluded that plaintiff-appellant's copyright claim failed as a matter of law because his videogame and the television series were not substantially similar.

AFFIRMED.

John Johnson *and* Allan Chan, Allan Chan & Associates,
New York, New York, *for Plaintiff-Appellant.*

Wook Hwang, Loeb & Loeb LLP, New York, New York,
for Defendants-Appellees.

CHIN, *Circuit Judge*:

This copyright infringement case marks the latest lawsuit involving the iconic *Star Trek* series. Since *Star Trek* premiered in September 1966, courts have wrestled with copyright and trademark lawsuits involving the television series.¹ Today, in the latest round of *Star Trek*-related litigation, we are asked to boldly go where no court has gone before and determine whether the television series *Star Trek: Discovery* (a recent addition to the *Star Trek* franchise) unlawfully infringed upon a game developer's videogame concept involving a tardigrade, a real life microscopic organism with the unique ability to survive in space.

¹ *Star Trek* has been the subject of litigation for many years. See, e.g., *Clarks of England, Inc. v. Glen Shoe Co.*, 485 F. Supp. 375, 377 (S.D.N.Y. 1980) (trademark dispute involving *Star Trek* mark); *Paramount Pictures Corp. v. Leslie Rubinowitz*, No. 81-cv-0925, 1981 WL 1396, at *1 (E.D.N.Y. June 26, 1981) (trademark and copyright case involving unlawful sale of *Star Trek* videotape cassettes); *Segal v. Paramount Pictures*, 841 F. Supp. 146, 148 (E.D. Pa. 1993) (copyright infringement action involving 1991 release of *Star Trek VI: The Undiscovered Country*); *Paramount Pictures Corp. v. Behnke*, No. 94 C 6878, 1995 WL 399494, at *1 (N.D. Ill. June 29, 1995) (copyright infringement action involving unlawful sales of screenplays for *Star Trek: Voyager* and *Star Trek: Generations*); *White v. Paramount Pictures Corp.*, 108 F.3d 1392 (Fed. Cir. 1997) (trademark infringement action involving the mark "THE ROMULANS"); *May v. Paramount Pictures Corp.*, 152 F.3d 927 (9th Cir. 1998) (copyright and trademark action involving *Star Trek* hotel and theme park); *Paramount Pictures Corp. v. Carol Pub. Grp., Inc.*, 25 F. Supp. 2d 372, 373 (S.D.N.Y. 1998) (copyright dispute involving publication of unlicensed book, *Joy of Trek*); *Evans v. Paramount Pictures Corp.*, 7 F. App'x 270, 271 (4th Cir. 2001) (trademark infringement action involving *Star Trek: First Contact*).

In 2014, plaintiff-appellant Anas Osama Ibrahim Abdin submitted a version of his science fiction videogame to several online forums and websites (the "Videogame"). The Videogame was initially introduced on May 8, 2014 under the name *Epoch*, before Abdin changed the name to *Tardigrades* on February 22, 2015. As the title of the Videogame suggests, the game featured a tardigrade -- traveling in space. Two years later, on September 24, 2017, defendant-appellees CBS Broadcasting Inc., Netflix, Inc., CBS Corporation, and CBS Interactive, Inc. ("defendants") premiered their latest installment in the *Star Trek* series, *Star Trek: Discovery* ("*Discovery*"). *Discovery* featured, in three episodes, a tardigrade named "Ripper" and followed the space adventures of its newest Starfleet crew.

Abdin brought this copyright infringement action alleging that in making *Discovery*, defendants copied elements of his Videogame, including not only the tardigrade, but the plot, mood, characters, and overall feel as well. For the reasons set forth below, we agree with the district court that Abdin failed to plausibly allege substantial similarity between his Videogame and *Discovery*. Accordingly, the district court's judgment dismissing his third amended complaint is AFFIRMED.

BACKGROUND

A. *Tardigrades*²

The tardigrade, also known as a "water bear" or "moss piglet," is a microscopic eight-legged animal less than one millimeter in length. App'x at 149.



Tardigrades are microscopic animals commonly known as water bears

As reported in Smithsonian

Magazine, most tardigrades are

found on moss or the bottom of lakes feeding on bacteria or plant life. Some

have been found, however, "surviving in boiling hot springs" and "buried under

layers of ice on Himalayan mountaintops." App'x at 149.³ Further, experiments

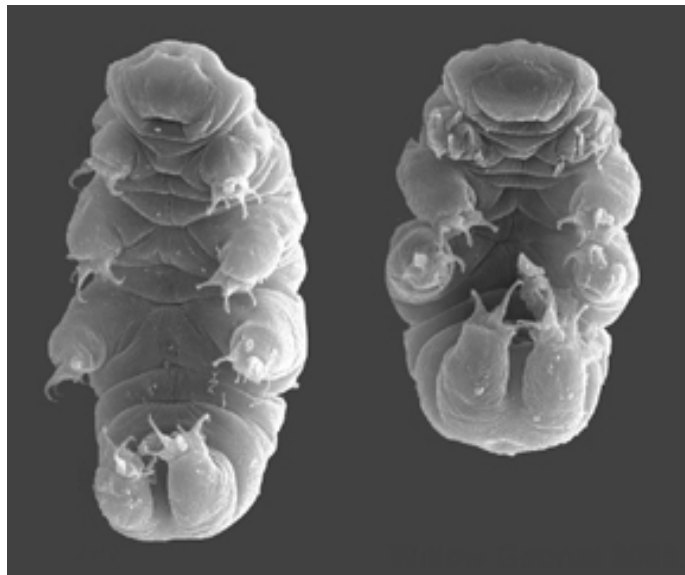
have shown that tardigrades are able to survive being frozen and heated to

See App'x at 157 (photo of a tardigrade published on "BBC Nature Features" on May 17, 2011).

² The district court properly took judicial notice of the publications discussed herein, describing the tardigrade's known ability to survive in extreme environments and space, not necessarily for the truth of the matter asserted, but for the publication of such information and relevant discussion in the scientific community. See *Staehr v. Hartford Fin. Servs. Grp., Inc.*, 547 F.3d 406, 425 (2d Cir. 2008) ("[I]t is proper to take judicial notice of the *fact* that press coverage, prior lawsuits, or regulatory filings contained certain information, without regard to the truth of their contents").

³ Joseph Stromberg, *How Does the Tiny Waterbear Survive in Outer Space?*, Smithsonian Magazine, (Sept. 11, 2012) (available at <https://www.smithsonianmag.com/science-nature/howdoes-the-tiny-waterbear-survive-in-outer-space-30891298>).

extreme temperatures and can withstand pressure and radiation thousands of times stronger than what a human could endure.



Willow Gabriel, Goldstein Lab, University of North Carolina at Chapel Hill (May 20, 2007) available at: <https://www.flickr.com/photos/waterbears/1614095719>.

Tardigrades can survive in such conditions due to "their ability to enter a dehydrated state that closely resembles death." App'x at 150. This state involves a tardigrade curling up into a "ball called a *tun*, [and] reducing its metabolic activity to as low as .01 percent of normal levels." App'x

at 150. A tardigrade can survive as a *tun* for over a decade, returning to its normal metabolic state in a few hours when immersed in water. When encountering other environmental stresses, tardigrades undergo additional transformations: if the oxygen in their water medium drops too low, they can stretch "into a long, relaxed state" to increase their water and oxygen intake, and if they encounter freezing conditions, they form a "special cold-resistant" *tun* that helps prevent the formation of ice crystals on their body. App'x at 150. Scientists

believe the tardigrades' ability to survive in outer space derives from their ability to survive extreme conditions on Earth.

In 2007, a group of European researchers conducted "the first research project to evaluate the ability of tardigrades to survive under open space conditions," known as "Tardigrades in Space" or "TARDIS." App'x at 144. They exposed a sample of dehydrated tardigrades to the vacuum and solar radiation of outer space for ten days. The tardigrades were "able to survive space vacuum without loss" and some even survived "combined exposure to space vacuum and solar radiation." App'x at 140. Given their findings, the researchers declared the experiment to "represent the first record of an animal surviving simultaneous exposure to space vacuum and solar/galactic radiation." App'x at 142.⁴

Two additional experiments involving tardigrades in space were conducted, one by the Russian Federal Space Agency and the other by the Italian Space Agency. As reported in Scientific American, the Russian Federal Space Agency arranged for a space probe to carry samples of Earth life to one of Mars'

⁴ See K. Ingemar Jönsson, et al., *Tardigrades Survive Exposure to Space in Low Earth Orbit*, 18 *Current Biology* 17 (Sept. 9, 2008) (available at <https://www.sciencedirect.com/science/article/pii/S0960982208008051>).

moons. Tardigrades were among the organisms chosen for the experiment, due to "their ability to repair DNA damage." App'x at 154. In addition, BBC Nature reported in 2011 that the Italian Space Agency sponsored a project to "investigate the impact of short-duration spaceflight on a number of microscopic organisms." App'x at 158. One experiment, the "Tardkiss," planned to "expose colonies of tardigrade[s] to different levels of ionising radiation" during the spaceflight to help determine how radiation affects the way tardigrades' cells work. App'x at 158. Overall, while not crediting the truth of the matters asserted in the studies, this Court notes that the tardigrades' unique ability to survive in extreme conditions, including apparently in the vacuum of space, has been the subject of scientific research and public discussion.

Tardigrades have also been the subject of fictional works, in addition to the works at issue in this case. In 2010, a children's fantasy novel featured Otto, a "gargantuan" tardigrade that was "the size of an elephant." App'x at 134 (quoting Tony DiTerlizzi, *The Search for Wondla* 110, 206 (2010)). In 2013, a science fiction novel referred to the ability of tardigrades to resist radiation. App'x at 135 (citing Sir Terry Pratchett, *The Science of Discworld IV: Judgment Day* (2013)). In 2014, Cartoon Network aired the fifth season of a television series

Adventure Time, an episode of which featured a creature called "Grass Bear" based on a tardigrade. App'x at 135. And in 2015, an animator posted an animated video to YouTube featuring "Captain Tardigrade," a half-man, half-tardigrade traveling in space. App'x at 136 (citing Ian Miller, *Captain Tardigrade: Defender of the Multiverse*, available at: <https://www.youtube.com/watch?v=OUrz4CtGuOM>).

B. *The Videogame*

Between May 2014 and July 2017, Abdin posted draft designs, video trailers, and descriptions of a science fiction script on his personal blog, YouTube, social media, and online forums, promoting his unreleased Videogame concept. None of the video or internet content published between May 2014 and September 2017 was registered for copyright. On June 28, 2018, Abdin registered a copyright for a distillation of the Videogame concept (the "Distillation").⁵ The Distillation is a twenty-three-page compilation of images, descriptions, and illustrations providing details of the Videogame's characters and backstory.

⁵ As the Videogame was never released, we base our description of it on the materials published by Abdin between May 2014 and September 2017 as well as the Distillation.

In general, the Videogame is a point-and-click adventure game about a civilization that existed in 20,000 B.C. and "discover[ed] intergalactic travel using their latest technologies." App'x at 71. The Videogame follows a protagonist, Carter, a blonde male botanist who lives on a space station orbiting the planet Jupiter. Carter communicates with other characters and explores the space station and other planets to solve puzzles. *See* Suppl. App'x at 131 (Game Trailer 1). The Videogame has "two possible endings and [tens] of ways to complete its puzzles," which are "triggered randomly at any time of the game play." App'x at 71. In short, the Videogame is interactive and the individual playing the game (the "player") can alter the "story" based on the player's "attitude in dialogs, tasks, choices and/or random events." App'x at 71. The player is "basically . . . writing the story of the game." App'x at 71.

The essential elements of the possible Videogame storylines can be drawn from vignettes in the Distillation and video trailers published by Abdin online. The Videogame explores space travel and contains themes involving adventure, romance, "slavery, secrecy[,] and espionage." App'x at 71.

An important character in the Videogame is the "giant blue tardigrade." App'x at 67. The Distillation notes that tardigrades can "withstand

extreme temperatures between -458 F° up [] to 300 F°," and "are the first known animals to survive in space." App'x at 85. The Distillation depicts Carter "being absorbed into the tardigrade, becoming one with the tardigrade, and having the tardigrade's abnormal powers." App'x at 24; *see also* App'x at 78. With assistance from the tardigrade, Carter discovered "instantaneous space travel" by traveling through a "wormhole" -- *i.e.*, "a theoretical method of folding space and time so that [one] could connect two places in space together." App'x at 227. Using essentially the same image, the video trailers and teasers also show a blue tardigrade enveloping Carter and then moving through space. *See* Suppl. App'x at 135.

The Distillation also provides biographical descriptions and images of some of the Videogame's characters. These biographies describe a diverse cast of characters with different physical features, races, occupations, sexual orientations, and ages. The player can control various characters and have Carter interact with these characters throughout the Videogame.

C. *Discovery*

Discovery is the latest installment in the *Star Trek* television series. *Star Trek* made its television debut in 1966 and followed the "adventures of the

U.S.S. Enterprise and its crew as they traveled through space during the 23rd century." *Paramount Pictures Corp. v. Carol Pub. Grp.*, 11 F. Supp. 2d 329, 331 (S.D.N.Y. 1998) *aff'd sub nom. Paramount Pictures Corp. v. Carol Pub. Grp., Inc.*, 181 F.3d 83 (2d Cir. 1999). This seminal science fiction series has undoubtedly shaped the genre and "[m]any of its characters, such as Captain Kirk and Mr. Spock, have become household names." *Id.*

In general, the original *Star Trek* and its accompanying spin offs are set in a distant future where humans and aliens travel through space and co-exist. See generally *Star Trek: The Original Series Synopsis*, Star Trek, available at: https://www.startrek.com/database_article/star-trek-the-original-series-synopsis; *Star Trek: The Next Generation Synopsis*, Star Trek, available at: https://www.startrek.com/database_article/star-trek-the-next-generation-synopsis. The United Federation of Planets (the "Federation") includes among its citizens humans from the planet Earth as well as Vulcans, who are known for their preference for rationality and logic, as well as beings from other planets. See *Paramount Pictures Corp. v. Axanar Prods., Inc.*, No. 2:15-CV-09938-RGK-E, 2017 WL 83506, at *1, *4 (C.D. Cal. Jan. 3, 2017). The Federation employs a fleet of spacecraft that travel the galaxy ("Starfleet"), and has a history of conflict with

the Klingons, "a militaristic, alien species from the planet Qo'noS." *Id.* at *4. The *Star Trek* series chronicles multiple space adventures where a variety of characters "explore strange new worlds, [] seek out new life and new civilizations, [and] boldly go where no one has gone before." Michael P. Scharf & Lawrence D. Roberts, *The Interstellar Relations of the Federation: International Law and "Star Trek: The Next Generation,"* 25 U. Tol. L. Rev. 577, 581 (1994). Starfleet must always abide by the "Prime Directive," a principle that prohibits its members from interfering with the development of alien civilizations. *See generally* Richard J. Peltz, *On A Wagon Train to Afghanistan: Limitations on Star Trek's Prime Directive,* 25 U. Ark. Little Rock L. Rev. 635, 640 (2003).

Discovery, the seventh series in the *Star Trek* franchise, premiered on September 24, 2017.⁶ The first season of *Discovery* introduces the "backstory of its lead character Michael Burnham . . . and set[s] up the Klingon War," taking place approximately eleven years before the events of the original *Star Trek* series.

App'x at 44; *see generally* *Star Trek: Discovery*, Star Trek, available at:

<https://www.startrek.com/about/star-trek-discovery>. "The Discovery,

⁶ To date, there have been thirteen full-length *Star Trek* motion pictures and nine *Star Trek* television series. *See Shows and Movies*, Star Trek, available at: <https://www.startrek.com/shows>.

commissioned as a science and exploratory vessel, has been forced to become a warship" and has a new mission to "find a way to win the war and pursue any avenue to achieve this objective and save the Federation from the Klingons."

App'x at 44. Pursuant to this mission, Captain Gabriel Lorca "has been searching for any and all types of weapons and technology that would give them an advantage over the Klingons." App'x at 44. One such advanced technology, the Displacement Activated Spore Hub Drive ("DASH Drive"), allows a spaceship to travel on the "Mycelial spore network," App'x at 64, and instantaneously travel to any location in the universe. The DASH Drive is fueled by a fungus called "[m]ycelium." App'x at 46. Despite maintaining a greenhouse full of spore-producing mycelium, however, the crew was not able to depend on the DASH Drive because it was "unreliable" and "lacked the ability to maintain navigational stability to make long jumps [across the universe] accurately." App'x at 44, 46.

The first season of *Discovery* featured 15 episodes.⁷ One of the main storylines in three of the episodes involves a creature named Ripper, "a huge and seemingly dangerous beast that resembles a massive version of Earth's micro-

⁷ Season two of *Discovery* began airing on January 17, 2019. A third season is scheduled to air October 15, 2020. See *Star Trek: Discovery Returns October 15*, Star Trek, available at: <https://www.startrek.com/news/star-trek-discovery-returns-october-15>

animals, the tardigrade." App'x at 64. Burnham discovers that Ripper shares qualities similar to those of an Earth-based tardigrade, such as the unique ability to "survive extreme heat and sub-freezing temperatures, including the vacuum of space," App'x at 45. At first, Burnham and her colleagues see Ripper as an "inherently hostile" creature, as it kills numerous Starfleet crew members as well as a dozen fully-armed Klingons; hence, its nickname, Ripper. App'x at 45. Burnham later determines, however, that Ripper was acting in self-defense and is not inherently violent. In connection with the DASH Drive, Burnham also discovers that Ripper and the mycelial "spores have a symbiotic connection" and "can communicate with one another." App'x at 51. The crew then uses Ripper as a "supercomputer" to guide the DASH Drive and successfully perform several jumps across the universe. App'x at 51. It becomes apparent, however, that Ripper experiences a "physical toll" each time he is connected to the DASH Drive, as it collapses into what appears to be a *tun*, the state characteristic of distressed real-life tardigrades. App'x at 51. After Captain Lorca is captured by the Klingons and the *Discovery* must travel a great distance to rescue him, one of the *Discovery* crew members injects himself with Ripper's DNA and connects himself to the DASH Drive in place of Ripper. This proves to be successful as the

ship is able to jump and the captain is saved; then, as Ripper recovers, Burnham releases it into space and Ripper departs through the subspace mycelial spore network.

Like other *Star Trek* spinoffs, *Discovery* continues many of the "narrative staples" common to *Star Trek*, including "exploring the definition of life and how to protect it." App'x at 50. *Discovery*'s treatment of the tardigrade is a prime example, as the crew members struggle with whether the tardigrade is a sentient being and whether it is being exploited or abused. Likewise, the series inherits "episodic elements" from earlier *Star Trek* series, including a "classic prison escape episode" and a "daring rescue mission" episode. App'x at 54. The *Discovery* series also makes numerous references to earlier series, through its portrayal of *Discovery* as being part of Starfleet, as well as its inclusion of Vulcans (specifically, Spock and his father Sarek), Klingons, and characters such as a younger version of Harry Mudd and Captain Christopher Pike, all staples of the original *Star Trek* franchise.

D. *Proceedings Below*

Abdin commenced this copyright infringement action on August 19, 2018. The parties agreed to a number of amendments culminating in the third

amended complaint (the "TAC"), filed on January 15, 2019. The TAC principally alleges that the *Discovery* creators saw and copied aspects of Abdin's Videogame, including the use of a space-traveling tardigrade and other elements from the Videogame. Abdin contends that defendants committed copyright infringement because the "Tardigrade character" in *Discovery* is "substantially similar" to the tardigrade in his Videogame. Suppl. App'x at 10. Moreover, subsequent *Discovery* episodes also allegedly copied the tardigrade's space-traveling abilities and other recurring main characters. In sum, the TAC alleges that there are substantial similarities between the works' concepts, plot, overall feel, and characters, specifically with respect to their use of tardigrades.

Defendants moved to dismiss the TAC on the grounds that *Discovery* is not substantially similar to the Videogame as a matter of law. On September 20, 2019, the district court granted defendants' motion to dismiss after concluding that Abdin's copyright claim failed as a matter of law because his Videogame was not substantially similar to *Discovery*.

With respect to the parties' use of tardigrades, the district court concluded that their common characteristics -- the "eight short legs," "O-shaped mouth in the center of the 'face,'" and the ability to survive in space without

protection --were all unprotectible facts that could not provide the basis for a copyright infringement claim. App'x at 243. Further, with respect to Abdin's character infringement claim, the district court held that they also "fail[ed] to support a [copyright infringement] claim, as they are mostly generalized non-protectible descriptions." App'x at 244. Finally, applying the "more discerning" observer test because Abdin's Videogame contained protectible and unprotectible elements, such as scientific facts or scènes à faire, the court also concluded that the parties' works were not substantially similar in their "overall feel," contrasting *Discovery's* "[o]verarching themes [drawn] from prior renditions" of *Star Trek* with the "disparate videos and images" comprising Abdin's work. App'x at 246.

Judgment entered September 23, 2019. This appeal followed.

DISCUSSION

We review *de novo* the dismissal of a complaint pursuant to Federal Rule of Civil Procedure 12(b)(6), accepting as true all factual allegations in the complaint and drawing all reasonable inferences in the plaintiff's favor. *See Biro v. Condé Nast*, 807 F.3d 541, 544 (2d Cir. 2015). We also review a district court's

determination of substantial similarity *de novo*. See *Peter F. Gaito Architecture, LLC v. Simone Dev. Corp.*, 602 F.3d 57, 65-66 (2d Cir. 2010).

A. *Applicable Law*

To establish a claim of copyright infringement, "two elements must be proven: (1) ownership of a valid copyright, and (2) copying of constituent elements of the work that are original." *Feist Publ'ns, Inc. v. Rural Tel. Serv. Co.*, 499 U.S. 340, 361 (1991). To satisfy the second element, a plaintiff "must demonstrate that: (1) the defendant has actually copied the plaintiff's work; *and* (2) the copying is illegal because a substantial similarity exists between the defendant's work and the protectible elements of plaintiff's [work]." *Yurman Design, Inc. v. PAJ Inc.*, 262 F.3d 101, 110 (2d Cir. 2001) (internal quotation marks omitted).

"The standard test for substantial similarity between two items is whether an ordinary observer, unless he set out to detect the disparities, would be disposed to overlook them, and regard [the] aesthetic appeal as the same." *Id.* at 111 (internal quotation marks omitted). Where, as in this case, a work incorporates unprotectible elements from the public domain, we apply a "more discerning" observer test, which requires "substantial similarity between those

elements, and only those elements, that provide copyrightability to the allegedly infringed [work]." *Boisson v. Banian, Ltd.*, 273 F.3d 262, 272 (2d Cir. 2001) (internal quotation marks omitted). No matter which test is applied, "we examine the similarities in such aspects as the total concept and feel, theme, characters, plot, sequence, pace, and setting." *Williams v. Crichton*, 84 F.3d 581, 588 (2d Cir. 1996); *see also Gaito*, 602 F.3d at 66.

B. Application

Even assuming that actual copying occurred, we affirm the district court's dismissal of the TAC on the grounds that Abdin failed to plausibly allege substantial similarity between protectible elements of his Videogame and elements from *Discovery*.

Three limitations on copyright protection are particularly relevant to Abdin's appeal. First, facts and ideas are not protected by copyright. *See Feist Publications, Inc.*, 499 U.S. at 347 ("[F]acts do not owe their origin to an act of authorship. The distinction is one between creation and discovery: The first person to find and report a particular fact has not created the fact; he or she has merely discovered its existence."); *Mattel, Inc. v. Goldberger Doll Mfg. Co.*, 365 F.3d 133, 135-36 (2d Cir. 2004) ("[C]opyright does not protect ideas; it protects only the

author's particularized expression of the idea."). Second, also unprotectible are scènes à faire, which this Court has described as "sequences of events which necessarily follow from a common theme," *Reyher v. Children's Television Workshop*, 533 F.2d 87, 91 (2d Cir. 1976), and "incidents, characters or settings which are as a practical matter indispensable, or at least standard, in the treatment of a given topic," *Hoehling v. Universal City Studios, Inc.*, 618 F.2d 972, 979 (2d Cir. 1980) (internal quotation marks omitted). Third, generic and generalized character traits such as race, gender, and hair color are not protectible. *See Nichols v. Universal Pictures Corp.*, 45 F.2d 119, 121 (2d Cir. 1930) ("[T]he less developed the characters, the less they can be copyrighted; that is the penalty an author must bear for marking them too indistinctly.").

i. Facts & Ideas

"[F]acts are not copyrightable." *See Feist Publications, Inc.*, 499 U.S. at 345. Here, the district court properly concluded that all tardigrades "have eight short legs that run in pairs along a rounded body, . . . an O-shaped mouth in the center of the 'face' and . . . are capable of surviving in space without protection." App'x at 243. These scientific facts are not copyrightable because they are part of the public domain and thus do not provide a basis for an infringement claim. *See*

N.Y. Mercantile Exch., Inc. v. IntercontinentalExchange, Inc., 497 F.3d 109, 114 (2d Cir. 2007) ("[A]ll facts -- scientific, historical biographical, and news of the day . . . may not be copyrighted and are part of the public domain available to every person." (quoting *Feist Publications, Inc.*, 499 U.S. at 348)). Indeed, these facts have been employed in other creative works as tardigrades have been the subject of books, videos, and other works of fiction.

Likewise, the tardigrade's ability to survive in space has been reported and discussed in numerous scientific studies and thus has entered the public domain as a scientific fact. *See Sparaco v. Lawler, Matusky, Skelly, Engineers LLP*, 303 F.3d 460, 467 (2d Cir. 2002) ("[C]opyright protection can extend only to original authorship, and [] the publication of facts, regardless how much effort was expended in discovering them, is not original authorship." (citing *Feist Publications, Inc.*, 499 U.S. at 347-48)); *Perry v. Mary Ann Liebert, Inc.*, No. 17-cv-5600 (CS), 2018 WL 2561029, at *6 (S.D.N.Y. June 4, 2018) ("The author of a scientific article published in a professional journal is certainly not entitled to a monopoly of the ideas presented therein." (quotation marks and alteration omitted)), *aff'd*, 765 F. App'x 470 (2d Cir. 2019). Several published studies have evaluated the tardigrades' ability to survive in space by exposing the animal to

space vacuum and radiation. In 2007, the TARDIS experiment "represent[ed] the first record of an animal surviving simultaneous exposure to space vacuum and solar/galactic radiation," App'x at 142, and discussed the tardigrade's ability to survive in space. The results were later published in the scientific periodical *Current Biology* on September 9, 2008. Additional experiments, and their media exposure, have only further confirmed the widespread understanding of the tardigrades' unique ability to survive in space.

Similarly, ideas are not copyrightable, and the extension of tardigrades' known ability to *survive* in space into the ability to *travel* in space is an unprotectible idea. See 17 U.S.C. § 102(b); *Attia v. Soc'y of N.Y. Hosp.*, 201 F.3d 50, 54 (2d Cir. 1999) ("It is a fundamental principle of our copyright doctrine that ideas, concepts, and processes are not protected from copying."). We have explained that "the protection granted to a copyrightable work extends only to the particular expression of an idea and never to the idea itself." *Reyher*, 533 F.2d at 90. "To grant property status to a mere idea would permit withdrawing the idea from the stock of materials that would otherwise be open to other authors, thereby narrowing the field of thought open for development and exploitation. This effect . . . would hinder, rather than promote, the professed

purpose of the copyright laws, i.e., 'the progress of science and useful arts.'"

Attia, 201 F.3d at 54 (quoting 4 Nimmer § 13.03[B] [2][a], at 13-60 to 61). In other words, as aptly put by Spock and Captain James T. Kirk in *Star Trek II: The Wrath of Khan* (Paramount Pictures 1982), "[t]he needs of the many outweigh the needs of the few . . . or the one."

While "[t]he distinction between an idea and its expression is an elusive one," *Crichton*, 84 F.3d at 587-88, Abdin's space-traveling tardigrade is an unprotectible idea because it is a generalized expression of a scientific fact -- namely, the known ability of a tardigrade to survive in space. *See Attia*, 201 F.3d at 55 ("[I]f the idea is recorded at a very general level of abstraction, there may be little or nothing in the original work that is protected against copying."); *see, e.g., Mattel, Inc. v. Azrak-Hamway Int'l, Inc.*, 724 F.2d 357, 360 (2d Cir. 1983) (describing the unprotectible idea of "a superhuman muscleman crouching in what since Neanderthal times has been a traditional fighting pose"). Just as, for example, an author's theory of who destroyed the Hindenberg based on historical facts is unprotectible, *see Hoehling*, 618 F.2d at 978-79 (holding author's hypothesis that crew member was responsible for destruction of Hindenburg was not copyrightable because it was based on his own interpretation of historical facts),

Abdin's idea of a tardigrade moving through space based on the scientific fact that tardigrades can survive in space is also unprotectible. *See N.Y. Mercantile Exch., Inc*, 497 F.3d at 114 ("The 'discoverer' of a scientific fact as to the nature of the physical world, [a] historical fact, a contemporary news event, or any other 'fact,' may not claim to be the 'author' of that fact" (quoting 1-2 Nimmer on Copyright § 2.03[E]); *Sparaco*, 303 F.3d at 466 (noting that "historical, scientific, or factual information belongs in the public domain, and that allowing the first publisher to prevent others from copying such information would defeat the objectives of copyright by impeding rather than advancing the progress of knowledge"). By permitting Abdin to exclusively own the idea of a space-traveling tardigrade, this Court would improperly withdraw that idea from the public domain and stifle creativity naturally flowing from the scientific fact that tardigrades can survive the vacuum of space. *See Captain James T. Kirk, Star Trek: The Return of the Archons, Star Trek: The Original Series (1967)* ("Without freedom of choice, there is no creativity.").

While Abdin contends that the tardigrade-human interaction in the Videogame is sufficiently original to be protected under copyright,⁸ an

⁸ To the extent that Abdin argues that the Videogame tardigrade contains sufficient original expression to warrant copyright protection, that proposition is

independent comparison of the works reveals "numerous differences" between the tardigrade-human interaction in the Videogame and in *Discovery* that "tend to undercut substantial similarity." *Durham Industries, Inc. v. Tomy Corp.*, 630 F.2d 905, 913 (2d Cir. 1980); *see also id.* ("As a matter of logic as well as law, the more numerous the differences between two works the less likely it is that they will create the same aesthetic impact so that one will appear to have been appropriated from the other."). More specifically, Abdin focuses on the Videogame tardigrade's "unique adventures with humans, such as assisting movement through space," its large size (as compared to its microscopic Earthly counterparts), and blue color. Appellant's Br. at 13.

While *Discovery's* tardigrade indeed shares at least some of these features, there are significant differences. As to space travel, for example, in the

irrelevant to this appeal. Under settled precedent, "[t]o prevail on a claim of copyright infringement, the plaintiff must demonstrate both (1) ownership of a valid copyright and (2) infringement of the copyright by the defendant." *Yurman Design, Inc.*, 262 F.3d at 108-09. The validity of the copyright "depends upon originality." *Id.* at 109. When evaluating infringement, "the standard . . . is whether the defendant's work is 'substantially similar' to the plaintiff's work." *Eden Toys, Inc. v. Florelee Undergarment Co.*, 697 F.2d 27, 34 (2d Cir. 1982), *superseded on other grounds by rule as stated in Fed. Treasury Enter. Sojuzplodoimport v. SPI Spirits Ltd.*, 726 F.3d 62, 84 (2d Cir. 2013). Therefore, the fact that the Videogame might contain sufficient original expression for copyright protection, is irrelevant to the issue of whether *Discovery* is substantially similar to the protectible elements of the Videogame to establish infringement. *See id.* (distinguishing between "the standard for sufficient *originality* and the test for *infringement*").

Videogame, the tardigrade "envelop[s] a human being" and the tardigrade flies through space with the person inside it. Appellant's Br. at 14-15; *see also* App'x at 71 (depicting the "tardigrade hug"). In comparison, in *Discovery*, Ripper is confined in a glass chamber aboard the *Discovery*, hooked up to the DASH Drive, and used as a supercomputer to guide the ship as it jumps to different parts of the galaxy. As to physical traits, while the tardigrade in the Videogame is a luminescent blue and Ripper does appear to be blue at times, it is primarily a darkish-brown or greenish color and its coloring seems to change. *Compare* App'x at 71 (blue tardigrade enveloping Carter), *with* Suppl. App'x at 143 (7:30) *and* Suppl. App'x at 143 (25:42) (green or brown Ripper), Suppl. App'x at 145 (29:38-30:50) (greenish brown Ripper).



App'x at 71 (Abdin's tardigrade).



Suppl. App'x at 143 at 25:42 (Ripper).

Most significantly, while it is unclear what role the nameless tardigrade plays in the Videogame, Ripper is very much at the center of a fully-developed story in Episodes 3, 4, and 5 of the first season of *Discovery*. It is given the nickname Ripper because it is first encountered attacking and killing numerous Starfleet personnel and Klingons. App'x at 45-46. While Ripper is first believed to be "inherently hostile," its character evolves as Burnham and her colleagues eventually discover that Ripper was violent only in self-defense and is "not a direct threat to life." App'x at 45-46. When Burnham realizes that the crew's use of Ripper in the DASH Drive is doing it harm, she and others try to intervene. And when the jumps take too great a toll on Ripper, another crew member takes Ripper's place to facilitate the jumps. In the end, completing the story, Burnham and the Discovery crew determine to set Ripper free so that it might live long and prosper.

In sum, even assuming Abdin's original expressions of a space-traveling tardigrade may be protectible under copyright law, an independent comparison of the works reveals that there is no substantial similarity between the protectible features of Abdin's tardigrade and Ripper from *Discovery*.

ii. *Scènes à Faire*

To be sure, even if Abdin's expression of the tardigrade surpassed an unparticularized "rendering of . . . [the] idea" of a tardigrade, *Azrak-Hamway Int'l, Inc.*, 724 F.2d at 360, the features and themes involving space travel would still be unprotected as *scènes à faire*, elements that "are as a practical matter indispensable, or at least standard," in the science fiction genre. *Hudson v. Universal Studios, Inc.*, No. 04-civ-6997 (GEL), 2008 WL 4701488, at *3 (S.D.N.Y. Oct. 23, 2008), *aff'd*, 369 Fed. App'x 291 (2d Cir. 2010).

Certain elements of works can be unprotectible under the doctrine of *scènes à faire*. See *Zalewski v. Cicero Builder Dev., Inc.*, 754 F.3d 95, 102 (2d Cir. 2014) ("[E]lements of a work that are indispensable, or at least standard, in the treatment of a given topic -- like cowboys, bank robbers, and shootouts in stories of the American West -- get no protection." (internal quotation marks omitted)); *Crichton*, 84 F.3d at 589 (holding that "electrified fences, automated tours, dinosaur nurseries, and uniformed workers" are typical *scènes à faire* that flow from the uncopyrightable idea of a dinosaur zoo). Copyright protection does not extend to "'stock' themes commonly linked to a particular genre." *Walker v. Time Life Films, Inc.*, 784 F.2d 44, 50 (2d Cir. 1986).

Here, the science fiction genre typically involves "stock themes," such as space travel, supernatural forces, war games, alien discovery, and adventuring through space. For example, themes of spaceships and space exploration have been commonplace in the science fiction genre since at least the early 1900s. See *A Trip to the Moon* (Star Film Company 1902) (George Méliès's classic silent film depicting space travel to the moon); *Flash Gordon* (King Features Productions 1936) (serial film featuring a rocket ship flown to the planet Mongo); *Buck Rogers* (Universal Pictures 1939) (serial film featuring a space ship flown to Saturn); *Mego Corp v. Mattel, Inc.*, No. 78-cv-4447, 1978 WL 21347, at *2 (S.D.N.Y. Sept. 29, 1978) ("The popularity of the theme of spaceships and space warriors and related subjects is well-known and the success of the motion picture *Star Wars* and the success of *Star Trek* and other such vehicles is something that this Court can judicially note."); *FASA Corp. v. Playmates Toys, Inc.*, 869 F. Supp. 1334, 1351 n.32 (N.D. Ill. 1994) (describing war fought in the "far reaches of space" as a classic element of great science fiction (citation omitted)).

Further, alien encounters are also a generic theme that routinely appears throughout the science fiction genre and is not entitled to copyright protection. See *Muller v. Twentieth Century Fox Film Corp.*, 794 F. Supp. 2d 429,

436-37 (S.D.N.Y. 2011), *aff'd sub nom. Muller v. Anderson*, 501 F. App'x 82-83 (2d Cir. 2012) (describing two well-known extra-terrestrial monsters and their hostile interactions with humans and Earth as part of the *Alien* and *Predator* franchises); *Moore v. Lightstorm Entm't*, 992 F. Supp. 2d 543, 556 (D. Md.), *aff'd sub nom. Moore v. Lightstorm Entm't, Inc.*, 586 F. App'x 143 (4th Cir. 2014) (describing the generic theme of futuristic stories about conflicts between humans and aliens). Likewise, copyright also does not protect generic themes and storylines involving aliens or advanced technology. *See Wavelength Film Co. v. Columbia Pictures Indus., Inc.*, 631 F. Supp. 305, 307 (N.D. Ill. 1986) (describing indispensable elements in science fiction: "an alien arrives on earth in a spaceship; all humans are afraid of the unknown alien; governmental authorities are trying to capture or destroy the alien; one human becomes friendly with the alien and tries to help it return home safely; and the alien leaves earth on a spaceship"); *Historical Truth Prods., Inc. v. Sony Pictures Entm't, Inc.*, No. 93-civ-5529 (MBM), 1995 WL 693189, at *8 (S.D.N.Y. Nov. 22, 1995) ("[C]onspiracies, characters with superhuman qualities, and advanced technology . . . are unoriginal and uncopyrightable stock elements of the action-adventure and science fiction film genres.").

Here, we have little trouble concluding that many of the alleged similarities in the parties' works (*e.g.*, the use of a space ship, space travel, and alien encounters) "are unprotectible elements that follow naturally from a work's theme rather than from an author's creativity." *MyWebGrocer, LLC v. Hometown Info, Inc.*, 375 F.3d 190, 194 (2d Cir. 2004). Likewise, the basic idea of a tardigrade traveling in space is a natural extension of the tardigrades' known ability to survive in space. Similarly, the idea of a tardigrade facilitating space travel is also unprotectible. *Cf. Basile v. Warner Bros. Entm't*, No. 15-cv-5243 (DMG), 2016 WL 5867432, at *7 (C.D. Cal. Jan. 4, 2016) ("[M]any science fiction and action-adventure films contain characters with various physiological and technological enhancements. This general and familiar science fiction trope is not a protectible element and does not establish a substantial similarity between the plots of the works."), *aff'd*, 678 F. App'x 604 (9th Cir. 2017). In sum, numerous elements that Abdin alleges are unlawful similarities between the works are not protected by copyright law because they are *scènes à faire* typical in the science fiction genre.

iii. Character Similarities

We also agree with the district court's conclusion that the similarities between the characters in the Videogame and those in *Discovery* are "mostly

generalized" and non-protectible. App'x at 244. Courts in this circuit have routinely denied character infringement claims sharing far more similar characteristics and features. *See, e.g., Alexander v. Murdoch*, No. 10-cv-5613 (PAC), 2011 WL 2802923, at *5 (S.D.N.Y. July 14, 2011) (dismissing claim where both characters shared the same sex and hair color, as well as similar mannerisms), *aff'd*, 502 F. App'x 107 (2d Cir. 2012); *Cabell v. Sony Pictures Entm't, Inc.*, 714 F. Supp. 2d 452, 454 (S.D.N.Y. 2010) (granting summary judgment where characters were both military-trained hairstylists who fight crime with hairdryers as weapons), *aff'd*, 425 F. App'x 42 (2d Cir. 2011).

Here, several of the characters in the works share general and undeveloped similarities. *Discovery's* Michael Burnham and the Videogame's Yolanda are black females with curly short brown hair. Carter from the Videogame and *Discovery's* Lieutenant Paul Stamets are both blonde white males who are scientists. Aziz, a space station technician in the Videogame, is a male with dark complexion, black hair, and beard, similar to *Discovery's* Hugh Culber, a doctor with a dark complexion, black hair, and a beard. Finally, Natasha in the Videogame and the *Discovery's* Sylvia Tilly are both depicted as young white women with orange or red curly hair.

There are also, however, significant differences in these characters. Yolanda is the communications engineer aboard the Videogame space station, while Burnham is the star and protagonist of *Discovery*, who initially appears as the First Officer aboard the starship Shenzhou. By Episode 3, however, she has been convicted of mutiny and first appears on the Discovery as a prisoner, but she redeems herself and eventually is appointed science officer. Stamets is not just a scientist, but specifically an "astromycologist, . . . someone who studies space-based fungi," App'x at 236, and he and Culver are lovers and berthmates aboard the Discovery. Natasha is a "major rival" in the Distillation, App'x at 75, while Tilly is a cadet who is also Burnham's friend and berthmate aboard the Discovery.

While the characters do share some traits such as hair color, race, and profession, the Videogame's many characters have a wide range of physical traits and the suggestion that a copyright infringement claim can be based on such generic and common characteristics is "highly illogical." Spock, *Star Trek: The Omega Glory*, *Star Trek: The Original Series* (1968). Courts in this circuit have long held that such stock similarities are non-protectible generalized traits that cannot support a plausible character infringement claim. *See, e.g., Sheldon Abend*

Revocable Tr. v. Spielberg, 748 F. Supp. 2d 200, 209 (S.D.N.Y. 2010) (similarities of "age, sex, and status" are "a basic character type" not protected under copyright); *Hogan v. DC Comics*, 48 F. Supp. 2d 298, 310 (S.D.N.Y. 1999) ("A stock character or basic character type, however, is not entitled to copyright protection."). We agree with the district court that there is no substantial similarity between the characters because the alleged similarities are generic and undeveloped. *See Nichols*, 45 F.2d at 121.

iv. Total Concept and Feel

Finally, in addition to the three limitations on copyright discussed above, where the "total concept and feel" of competing works is different, we will not find infringement. *See Tufenkian Imp./Exp. Ventures, Inc. v. Einstein Moomjy, Inc.*, 338 F.3d 127, 134-35 (2d Cir. 2003). In this vein, our independent comparison of the two works confirms that the "total concept and feel" of the Videogame is different from that of *Discovery*. *Discovery* builds on decades of *Star Trek* plot lines, themes, and stories, referring back to original characters and settings from previous series taking place in the same universe involving the same everlasting conflict between the Federation and the Klingons.

For example, like previous renditions of *Star Trek*, *Discovery* includes storylines depicting Klingons and the human-Vulcan alliance. *Discovery* follows the Klingon character Voq, who is tasked with the mission to keep the Klingon houses together. *Discovery* also highlights the difficulties of the dynamic between humans and Vulcans that was first explored in the original *Star Trek* in the relationship between Leonard McCoy and Spock. Most clearly, Burnham is the adopted daughter of Spock's parents, his father Sarek (a Vulcan) and his mother Amanda (a human). Burnham's interactions with her adopted father and the human-Vulcan alliance further allude to earlier renditions of *Star Trek*. *Discovery* also answers questions posed in previous *Star Trek* series, such as the tensions leading to the Klingon War depicted in the original series.

In contrast, the Videogame's "total concept and feel" is unclear as it is composed of multiple, disjointed vignettes depicting interactions among seven characters. See App'x at 73-76. While the plot of the Videogame, which takes place in 20,000 BC as opposed to the distant future, follows Carter -- a blonde male botanist living in space -- and contains themes including "slavery, secrecy[,] and espionage," App'x at 71, the "total concept and feel" is not substantially similar when compared to the consistent plot lines presented in *Discovery*.

Abdin's short video teasers and trailers reveal only that *Tardigrades* appears to be a point-and-click game heavily focused on the completion of puzzles to explore space. *See* Suppl. App'x at 131 (Game Trailer 1). The trailers also suggest that the Videogame appears to have an ancient Egyptian mythological influence. *See, e.g.,* Suppl. App'x at 133 (Teaser #10). In comparison, *Discovery* is a fully developed science fiction television series continuing established *Star Trek* storylines with well-known characters and crossovers to original *Star Trek* themes and plots.

In conclusion, we hold that Abdin failed to plausibly allege substantial similarity between *Discovery* and the Videogame as a matter of law. Overall, the presence of Ripper the tardigrade in *Discovery* is minimal, as it only appears in three episodes. The main storyline in *Discovery* focuses on the continuation of storylines beginning in the original *Star Trek* series and continuing throughout the decades of *Star Trek* spinoffs and movies. Thus, after extracting the unprotectible elements from Abdin's Videogame -- the scientific facts, general ideas, science fiction themes constituting scènes à faire, and generalized character traits -- we hold that the Videogame and *Discovery* are not substantially similar because the protectible elements, as described above, are markedly different. *See Gaito*, 602 F.3d at 66 (when applying the more discerning

test, this Court must "extract the unprotectible elements from our consideration and ask whether the protectible elements, standing alone, are substantially similar" (internal quotation marks and citation omitted)). The district court did not err in dismissing the TAC.

CONCLUSION

For the reasons set forth above, the district court's judgment is

AFFIRMED.