

Point and Shoot: Originality, Authorship, and the Identification of the Copyright Work in Modern Photography

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Abstract

This article explores how profound technological developments in photography have problematised concepts of the photograph, authorship, and originality in Australian copyright law. These developments have resulted in highly automated photography and ubiquitous photographs, inviting questions about what constitutes a ‘photograph’ as defined in the Australian *Copyright Act 1968* (Cth) (*‘Copyright Act’*), when a photograph is sufficiently original, and how the definition of the ‘author’ of a photograph as the person who ‘took’ it should be interpreted. The article is the first to analyse these issues, ameliorating the relative dearth of serious scholarly investigation of the contemporary photograph under Australian copyright law and a paucity of judicial attention. It considers the meaning of ‘photograph’ and ‘photography’ under the *Copyright Act* and explains how software and new practices in a ‘post-photography’ world challenge those concepts. It then explores photographic originality and investigates how increasingly automated modes of photography diminish, if not eviscerate, originality in contemporary photography. The article then focuses on photographic authorship, interrogating the statutory definition of the author of a photograph as ‘the person who took it’. The article also proposes further research into ways of better aligning copyright law with contemporary photographic technological developments and artistic practice.

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I Introduction

Photographs receive copyright protection under the Australian *Copyright Act 1968* (Cth) (*Copyright Act*), provided they fall within the Act's definition of 'photograph', are original, and are created by an author, who is defined in the Act to be the person who 'took' the photograph.¹ At first glance, this sounds like a relatively simple path to achieving copyright subsistence in photographs. However, technological change in the way photographs are made has forced a number of questions to come into sharp focus: what are 'photographs' these days; when are they original copyright works; who authors them; and who 'takes' a photograph? This situates the copyright status of photographs among other major questions of law and policy provoked by technological development, and raises the familiar question of how well the law keeps pace with technology. Most difficult copyright questions have been prompted by technological change, and over the last 170 years, photography has undergone the most profound technological change of any copyright-protected subject matter.

The article starts by considering the meaning of 'photograph' within the definition of 'artistic work' in the *Copyright Act*.² Australia's exhaustive closed-list system for defining both copyright subject matter generally, and the content of 'artistic work' specifically means that alignment with the definition of 'photograph' is a critical threshold for protection. The article therefore analyses what we mean by 'photograph' and 'photography' in a 'post-photography'³ world. This is particularly relevant now that artificial intelligence ('AI') can generate digital images that are indiscernible from genuine photographs, raising broader questions about the suitability of a closed-list system of copyright protection, and where we can and should situate digital images in such a system. The article then focuses on an essential subsistence criterion: photographic originality. This is more questionable than ever, since modern photography is often now mostly a matter of pressing a button and allowing the computer inside the camera or mobile phone to make all of the decisions about aperture, angle, light and focus.⁴ Different standards of originality across copyright systems complicate the standardisation of photograph protection in a globalised world, meaning the same photograph may receive protection in some jurisdictions, but not others. Finally, the article considers the *Copyright Act*'s statutory definition of the author of a photograph as 'the person who took it' and how it should be interpreted.⁵

¹ *Copyright Act 1968* (Cth) s 10(1) (definition of 'author') (*Copyright Act*).

² *Ibid* s 10(1) (definition of 'artistic work').

³ 'Post-photography' is defined in Daniel Chandler and Rod Munday (eds) *A Dictionary of Media and Communication* (Oxford University Press, 2nd ed, 2016) as '1. The use of digital photography as a distinctive medium, contrasted with traditional photography; especially reflexive art in which photographic images are digitally manipulated. 2. A cultural era of widespread photographic literacy, image manipulation, and hyperreality.' See also, eg, Robert Shore, *Post-Photography: The Artist with a Camera* (Laurence King Publishing, 2014).

⁴ Andrés Guadamuz, 'The Monkey Selfie: Copyright Lessons for Originality in Photographs and Internet Jurisdiction' (2016) 5(1) *Internet Policy Review* <<https://doi.org/10.14763/2016.1.398>>.

⁵ *Copyright Act* (n 1) s 10(1) (definition of 'author').

The copyright status of modern photographs is increasingly relevant to a number of stakeholders, not just professional photographers, and for a number of reasons. Infringement of the copyright in photographs is often included in the mix of claims for breach of confidence, misleading or deceptive conduct, passing off, trademark infringement, design infringement, patent infringement, defamation and some privacy-based claims,⁶ so the issue has the potential to be more frequently ventilated. Photographs are also an absolutely essential means of distributing information. The photograph has moved from simply reproducible to inherently disseminative, feeding our contemporary see–shoot–share sensibility. Whether copyright does subsist is an important question because its exclusive rights can also be a powerful censorship tool chilling the photograph’s disseminative value and access to the important information a photograph might contain. And of course, photographs are legion, and we are all photographers these days, so these questions affect us all. It is estimated that between 1.2 trillion⁷ and 7.5 trillion⁸ photos were taken in 2017. Most will evade close examination of their copyright status, but those that are economically, artistically, or culturally valuable may attract more scrutiny and whether copyright subsists will be significant to professional photographers, in particular, but also to the lucky amateur photographer who happens to capture something valuable. In light of landmark cases examining authorship and originality as copyright subsistence criteria,⁹ there is also arguably a greater potential for defendants to challenge blunt assertions of copyright in material created in association with software. These issues also directly play into more normative questions about whether the treatment of photographs under the *Copyright Act* supports or challenges the theoretical justifications for photographic copyright under either a natural rights or utilitarian model. For all of these reasons, the copyright status of photographs demands greater attention.

II The ‘Photograph’ and Post-Photography

What is a ‘photograph’? This question prompts an array of responses, depending on the perspective: technical, aesthetic, cultural, and, for our purposes, legal. Some domains, like contemporary art, may eschew any attempt to define the photograph,¹⁰

⁶ See, eg, *Austshade Pty Ltd v Boss Shade Pty Ltd* (2016) 118 IPR 93 (registered design, innovation patent); *Derrimut Health & Fitness Pty Ltd v Revival 24:7 Gym Pty Ltd* [2019] FCA 1988 (registered trade mark); *Sovereign Hydroseal Pty Ltd v Steynberg* (2020) 155 IPR 459 (breach of confidence); *Woodtree Pty Ltd v Zheng* (2007) 164 FCR 369 (misleading conduct); *Warne v Genex Corporation Pty Limited* (1996) 35 IPR 284 (privacy, breach of confidence, misleading conduct); *Seafolly Pty Ltd v Madden* (2021) 297 ALR 337 (defamation).

⁷ Caroline Cakebread, ‘People Will Take 1.2 Trillion Digital Photos This Year — Thanks To Smartphones’, *Business Insider Australia* (online, 1 September 2017) <<https://www.businessinsider.com.au/12-trillion-photos-to-be-taken-in-2017-thanks-to-smartphones-chart-2017-8?r=US&IR=T>>.

⁸ ‘How Many Photos Were Taken Last Year?’, *Forever* (Blog Post) <<https://blog.forever.com/forever-blog/2018/1/22/how-many-photos-were-taken-last-year>>.

⁹ See, eg, *IceTV Pty Ltd v Nine Network Australia Pty Ltd* (2009) 239 CLR 458 (‘IceTV’); *Telstra Corporation Ltd v Phone Directories Co Pty Ltd* (2010) 194 FCR 142 (‘Telstra v Phone Directories’).

¹⁰ See, eg, Miriam Leuchter, ‘Editor’s Letter: What is a Photograph?’ (2010) 74(3) *Popular Photography* 6; Shore (n 3); Carol Squiers, Geoffrey Batchen, George Baker, George Thomas Baker and Hito Steyerl, *What is a Photograph?* (DelMonico Books-Prestel, 2013); Stephen Shore, *The*

just as any rigid definition of ‘art’ is resisted, and others may question who is best placed to forge definitions and boundaries for art — Parliament or the artists themselves?¹¹ However, s 10(1) of the *Copyright Act* supplies a definition:

photograph means a product of photography or of a process similar to photography, other than an article or thing in which visual images forming part of a cinematograph film have been embodied, and includes a product of xerography, and photographic has a corresponding meaning.¹²

This definition demands some understanding of what constitutes ‘photography’, which may also be a fluid concept for photography theorists and contemporary artists.¹³ Courts tend to avoid those more esoteric debates, and turn to dictionary definitions. By way of example, the Merriam-Webster Dictionary defines ‘photography’ as ‘the art or process of producing images by the action of radiant energy and especially light on a sensitive surface (such as film or an optical sensor)’.¹⁴ This dictionary definition gives few opportunities to rethink the photograph’s ontology. One text has raised ‘the question of how relevant this concept of photography remains in the age of digital cameras, where the processes by which images are produced may be far removed from those originally involved in photography’.¹⁵ However, it seems that photographs made using digital cameras will likely satisfy the definition, since these images are the result of a process involving light, the defining feature of photography.¹⁶

However, not all digital images are ‘photographs’, even if they appear indistinguishable from photographs. Advanced 3D rendering and animation

Nature of Photographs (Phaidon Press, 2nd ed, 2007); Fred Ritchin, *After Photography* (WW Norton, 2009); ‘Redefining the Photographic Medium: Chapter Introduction’ in Moritz Neumüller (ed) *The Routledge Companion to Photography and Visual Culture* (Routledge, 2018) 207.

¹¹ Justine Pila, ‘An Intentional View of the Copyright Work’ (2008) 71(4) *Modern Law Review* 535; Justine Pila, ‘Copyright and Its Categories of Original Works’ (2010) 30(2) *Oxford Journal of Legal Studies* 229 (‘Copyright and Its Categories’).

¹² This is consistent with the *Berne Convention for the Protection of Literary and Artistic Works*, opened for signature 24 July 1971, 1161 UNTS 3 (entered into force 15 December 1972) art 2(1) (‘*Berne Convention*’):

The expression ‘literary and artistic works’ shall include every production in the literary, scientific and artistic domain, whatever may be the mode or form of its expression, such as ... photographic works to which are assimilated works expressed by a process analogous to photography ...

See also the definition of ‘photograph’ in s 4(2) *Copyright, Designs and Patents Act 1988* (UK) as ‘a recording of light or other radiation on any medium on which an image is produced or from which an image may by any means be produced, and which is not part of a film’.

¹³ See the sources cited at n 10 and the examples of boundary-pushing ‘photography’ below nn 29, 32–7 and accompanying text.

¹⁴ Merriam-Webster Dictionary (online at 15 March 2021) ‘photography’.

¹⁵ Westlaw AU, *Law of Intellectual Property: Copyright, Designs & Confidential Information* (Last updated: 4 August 2016) Part II – Copyright and Neighbouring Rights, ‘Photographs’ [7.380] (‘*Law of Intellectual Property*’).

¹⁶ ‘Photography: Digital Photography’ *BBC Bitesize* (online, 2021) <<https://www.bbc.co.uk/bitesize/guides/zrg2d6f/revision/9>>: ‘The sensor in a digital camera has millions of pixels, each of which make-up a light-sensitive photocell. This cell generates a tiny electrical current in response to light.’ See also Mark J Davison, Ann L Monotti, and Leanne Wiseman, *Australian Intellectual Property Law* (Cambridge University Press, 2nd ed 2011) 213 [6.2.1.4.5]: ‘The definition excludes cinematograph films, but is broad enough to include digital photographs where there is no film.’

software like Keyshot¹⁷ and Generative Adversarial Network (‘GAN’)¹⁸ technology produces images that look identical to photographs.¹⁹ It may seem anomalous to deny these photorealistic computer-generated images photographic status, when they so closely resemble photographs. Despite Ansel Adams’ observation that ‘[y]ou don’t take a photograph, you make it’,²⁰ these ‘made’ images cannot be photographs within the *Copyright Act’s* definition, because they are not ‘a product of photography’ nor do they result from a ‘process similar to photography’ as described above.²¹ Nor are they likely to be authored, a point discussed further below. These hyperreal images can clearly complicate the already confounding problem caused by ‘deep fakes’.²² They also generate important issues for the livelihood of commercial photographers who are already being abandoned in preference for digital image renderers:²³ a tendency likely to accelerate as GAN AI technology develops to the point where we can simply ask our phones to ‘make me a picture of a castle covered in ivy’, rather than going to the bother of taking or commissioning one.²⁴

The definition of ‘photograph’ also becomes significant when classifying manipulations and creative modifications of existing photographs, an artistic practice facilitated by Photoshop software and similar tools.²⁵ As Shore notes:

Given the abundance of pre-existing visual material in our hyper-documented world, it’s unsurprising that an increasing amount of photographic art begins with someone else’s pictures. There’s nothing new about appropriating found imagery for fine-art purposes. But the sources, methods, and goals are fast-evolving. If digital culture has transformed photographic practice — that is, how pictures are taken and displayed — it has had no less profound an impact on how found materials are sought and then manipulated.²⁶

¹⁷ KeyShot (Website) <<https://www.keyshot.com>>. See also Joe Flaherty, ‘Hyper-Realistic CGI is Killing Photographers, Thrilling Product Designers’, *Wired* (online, 20 March 2013) <<https://www.wired.com/2013/03/luxion-keyshot/>>.

¹⁸ See Chris Nicholson, ‘A Beginner’s Guide to Generative Adversarial Networks (GANs)’, *A.I. Wiki* (Web Page) <<https://wiki.pathmind.com/generative-adversarial-network-gan>>.

¹⁹ See the GAN examples in William Gayde, ‘New Technology Allows for Computer-Generated Photos that are Undetectable Fakes’ *TechSpot* (Web Page, 30 October 2017) <<https://www.techspot.com/news/71654-new-technology-allows-computer-generated-photos-undetectable-fakes.html>>.

²⁰ Cited in “‘You Don’t Take a Photograph, You Make It.’ — Ansel Adams”, *Gina Milicia* (Blog Post, 26 June 2017) <<https://ginamilicia.com/2017/06/you-dont-take-a-photograph-you-make-it-ansel-adams/>>.

²¹ See above n 12 and accompanying text.

²² ‘Deepfake, a portmanteau of “deep learning” and “fake”, refers to AI software that can superimpose a digital composite face on to an existing video (and sometimes audio) of a person’: Matt Beard, ‘To Fix the Problem of Deepfakes We Must Treat the Cause, Not the Symptoms’, *The Guardian* (online, 23 July 2019) <<https://www.theguardian.com/commentisfree/2019/jul/23/to-fix-the-problem-of-deepfakes-we-must-treat-the-cause-not-the-symptoms>>. This means that, as Fred Ritchin notes, “[i]n the digital arena one cannot with any certainty look at a photograph and say, “So that is how it was””: Ritchin (n 10) 58.

²³ Flaherty (n 17).

²⁴ Paul Melcher, ‘Future A.I. Will Be Able to Generate Photos We Need Out of Nothing’, *PetaPixel* (online, 22 June 2015) <<https://petapixel.com/2015/06/22/future-a-i-will-be-able-to-generate-photos-we-need-out-of-nothing/>>.

²⁵ See, eg, Alice Yoo, ‘10 Incredible Photo Manipulation Artists’, *My Modern Met* (Web Page) <<https://mymodernmet.com/10-incredible-photo/>>.

²⁶ Shore (n 3) 13.

Shore refers to these creative appropriations as ‘photographic art’,²⁷ no doubt because of their surface approximation of photography. However, as mentioned, these images are neither ‘a product of photography’, nor created through a process similar to photography’, but are created through a process of reproduction and transformation of a photograph. Thus, although it is true that the digital age offers many opportunities to be creative *with* photographs, that creative activity may not create a ‘photograph’.

Other technological developments that hybridise the static features of the photograph and the kinetic continuity of film can also complicate how we classify photographs under the existing copyright framework. Examples include burst and rapid-fire tools, cameras programmed to take thousands of individual photos sequentially over an extended period of time, or iPhone’s Live Photo system, which records what happens 1.5 seconds before and after a picture is taken, producing what Apple refers to as ‘a moment captured with movement and sound’.²⁸ In the context of contemporary art, a number of artists play with the boundary between film and the photograph, providing ‘a fresh look at the photographic inscription of reality either by bringing the still photograph to life or by unearthing the photographic stillness embedded in the moving image’.²⁹ All of these examples tend to blur the distinction between film and photograph, particularly since the *Copyright Act* s 10(1) definition of ‘photograph’ expressly excludes ‘an article or thing in which visual images forming part of a cinematograph film have been embodied’. This classification matters under Australian law at least, because only ‘photographs’ are works; films are ‘made’ and attract different copyright subsistence criteria and thinner rights.³⁰ Importantly, they need not be original, nor authored.³¹

It is also questionable how well the Act’s definition of ‘photograph’ aligns with contemporary art practices that involve ‘camera-less’ means of making images using natural processes.³² Examples of artists employing these post-photography practices include Christopher Colville, who has produced images by permitting a dead squid to decompose ‘atop photographic sheet film, exposing it by the glow of the carcass’s own decomposition. The bioluminescence of the food consumed by a squid gets released as its host decays’.³³ Colville also generates images by ‘igniting gunpowder dusted over arrangements of metal, stone, and wood on photosensitive

²⁷ Ibid.

²⁸ ‘Take and Edit Live Photos’, *Apple Support* (Web Page, 10 February 2020) <<https://support.apple.com/en-au/HT207310>>.

²⁹ Jihoon Kim, *Between Film, Video, and the Digital: Hybrid Moving Images in the Post-Media Age* (Bloomsbury, 2016) 2.

³⁰ Being the right to make a copy, communicate the film to the public, and cause the film, in so far as it consists of visual images, to be seen in public: *Copyright Act* (n 1) s 86.

³¹ With the exception of the moral rights provisions, which for the purposes of pt IX of the *Copyright Act*, deem the authors of a film to be the producer, the screenwriter and the director: *Copyright Act* (n 1) s 191.

³² Zack Hatfield, ‘Photographs Made with the Ocean Capture Its Swirling Rhythms’, *Hyperallergic* (online, 4 April 2017) <<https://hyperallergic.com/369965/photographs-made-with-the-ocean-capture-its-swirling-rhythms>>.

³³ Leah Ollman, ‘Rematerializing Photography’ *Art in America* (online, 26 May 2017) <<https://www.artnews.com/art-in-america/features/rematerializing-photography-63264/>>.

paper'.³⁴ Edgar Lissel 'combines the light-seeking behaviour of cyanobacteria ... using the exposure of light on petri dishes to influence the growth of the microorganisms in specific patterns'.³⁵ Meghann Riepenhoff 'photographs' the ocean '[b]y coating photosensitive paper with homemade cyanotype emulsion and exposing surfaces to the elements — tree branches, rain, wind, ocean waves'.³⁶ Susan Derges has generated 'images' of 'the movements of water by placing photographic paper directly onto rivers and brooks'.³⁷ All of these contemporary artists disrupt the photograph's predictable narrative and conventional process. However, because many of these processes still use light, they are perhaps similar enough to a 'product of photography' or a 'process similar to photography' to produce images falling within the definition of 'photograph'.³⁸ This will depend on whether a court would be prepared liberally to interpret the phrase a 'process similar to photography' to include these more avant-garde modes of generating photograph-like pictures.

A conclusion that these images produced by processes such as 3D rendering, GAN, hybrids of film and photograph, or through natural processes are not 'photographs' has potentially sobering ramifications in copyright systems employing closed lists of protected subject matter, particularly when those subject matter are narrowly, or exhaustively, defined. In Australia, as mentioned, the definition of 'artistic work' is exhaustive, although the enumerated items listed in the definition of artistic work may themselves sometimes be either exhaustively or inclusively defined, or undefined.³⁹ Noting perhaps Henri Cartier-Bresson's observation that '[p]hotographing, for me, is instant drawing', are these creations 'drawings'?⁴⁰ A conservative court may reject such a suggestion, and courts tend to be unadventurous when assessing art through a copyright lens.⁴¹ The *Copyright Act* s 10(1) definition of 'drawing' only clarifies that 'drawing includes a diagram, map, chart or plan' and gives no other guidance. The Federal Court of Australia has said

³⁴ Ibid.

³⁵ 'Featured Gallery: Edgar Lissel', *Microbial Art* (Web Page) <<http://www.microbialart.com/galleries/edgar-lissel/>>.

³⁶ Hatfield (n 32).

³⁷ Ibid.

³⁸ Whether these artists are authors or mere agents of nature is a separate, but important question, investigated in Jani McCutcheon, 'Natural Causes: When Author Meets Nature in Copyright Law and Art. Some Observations Inspired by *Kelley v Chicago Park District*' (2018) 86(2) *University of Cincinnati Law Review* 707.

³⁹ *Copyright Act* (n 1) s 10(1) states that 'artistic work' means:

(a) a painting, sculpture, drawing, engraving or photograph, whether the work is of artistic quality or not;

(b) a building or a model of a building, whether the building or model is of artistic quality or not; or

(c) a work of artistic craftsmanship whether or not mentioned in paragraph (a) or (b)'.
 'Building', 'drawing', 'engraving' and 'sculpture' are then defined inclusively, and 'photograph' is

defined exhaustively: *Copyright Act* (n 1) s 10(1). There are no definitions of 'painting' or 'work of artistic craftsmanship'.

⁴⁰ Henri Cartier-Bresson quoted in John Suler and Richard D Zakia, *Perception and Imaging: Photography as a Way of Seeing* (Routledge, 5th ed, 2017) 129.

⁴¹ See Anne Barron, 'Copyright Law and the Claims of Art' [2002] (4) *Intellectual Property Quarterly* 368; Pila, 'Copyright and Its Categories' (n 11).

that ‘the essence of a drawing remains the concept of a representation of some object by a pictorial line’.⁴² The Full Court of the Federal Court has clarified that this concept extends to abstract drawings and there is no requirement that the drawing represent reality.⁴³ Some of the hard-to-classify creations outlined above might appear to have been drawn, particularly some digital renderings that have a stronger resemblance to illustration than photography. Others appear more like paintings,⁴⁴ which are undefined in the *Copyright Act*, or approximate films, which are expressly excluded from the Act’s definition of ‘photograph’. The definition of ‘artistic work’ also includes ‘work of artistic craftsmanship’.⁴⁵ These are also undefined and, as the definition of artistic work clarifies, works of artistic craftsmanship may also be other items listed in the definition, such as a painting or drawing.⁴⁶ The High Court has held that works of artistic craftsmanship are classified based on the ‘extent to which the particular work’s artistic expression, in its form, is unconstrained by functional considerations’.⁴⁷ An accommodating court may be prepared to stretch the concepts of drawing, painting or film to incorporate these quasi-photographic images, or some may evidence sufficient artistic intent relative to functional design requirements to qualify as a work of artistic craftsmanship. Whether there is room for these unconventional ‘photographs’ in the artistic work definition may be very significant for putative owners of the copyright in such images who wish to restrain unauthorised reproductions, or guard against moral rights infringement. For example, a car manufacturer may be very surprised and disappointed to learn that the digitally rendered, photorealistic images of their brand-new car that constitute the core of their worldwide marketing campaign receive no protection in countries employing narrow and anachronistic definitions of ‘photograph’.⁴⁸ While a magnanimous court might classify these digital renderings as ‘drawings’ or perhaps a work of artistic craftsmanship, there is no guarantee this more liberal approach would be adopted.

Future research should investigate whether the *Copyright Act’s* definition of ‘photograph’ should be amended or abandoned. On balance, amending the definition could create more problems than it cures. It may be difficult to fix on a definition of ‘photograph’ that aptly captures the range of photographic or photographic-like practices occurring today, let alone in the unknown technological future. Perhaps the better approach is to delete the definition and leave ‘photograph’ undefined, allowing concepts of the photograph in copyright law to evolve with technology. Another option would be to convert the existing definition of ‘artistic work’ from exhaustive to inclusive. This would better reflect the reality that art is constantly

⁴² *Woodtree Pty Ltd v Zheng* (2007) 64 FCR 369, 375 [27] (Heerey J).

⁴³ *Elwood Clothing Pty Ltd v Cotton On Clothing Pty Ltd* (2008) 172 FCR 580, 589–90 [49]. The Court also clarified that for hybrid works combining literary text and graphic elements, the question is whether the drawing ‘makes a visual impression notwithstanding the presence of the words and numbers’: at 591 [60].

⁴⁴ See, especially, Meghann Riepenhoff’s work: Hatfield (n 32).

⁴⁵ *Copyright Act* (n 1) s 10(1) (definition of ‘artistic work’).

⁴⁶ *Ibid.*

⁴⁷ *Burge v Swarbrick* (2007) 232 CLR 336, 364 [83].

⁴⁸ Or, as discussed below nn 99–110 and accompanying text, because the automated process of production means they are authorless, and thus not a copyright work on that basis.

changing and prevent a restrictive and anachronistic definition of artistic work from unduly excluding non-traditional creative output from the copyright domain. These questions merit further analysis and investigation and their resolution is beyond the scope of this article, which primarily seeks to illuminate the issues.

III Photographic Originality

This Part outlines the bases for photographic originality, and how these are complicated by technology. All artistic works, including photographs, must be original in order for copyright to subsist.⁴⁹ However, Australian jurisprudence has not specifically interrogated photographic originality. Thus, we must extrapolate from general principles. The author of a work supplies the requisite originality under the correlative principles of authorship and originality.⁵⁰ In *IceTV*, French CJ, Crennan and Kiefel JJ observed, in obiter dicta, that originality ‘means that the creation (ie the production) of the work required some independent intellectual effort’.⁵¹ The Full Court of the Federal Court has since held that:

As to the ‘correlative’ relationship between authorship and originality, the contemporary question is simply this: Has the author deployed personal independent skill, labour, intellectual effort, judgement and discrimination in the production of the particular expression of the work?⁵²

Absent Australian jurisprudence on the specific issue of *photographic* originality, it is useful to consider persuasive authority from other jurisdictions. It is beyond the scope of this article to meticulously canvas the evolution of judicial recognition of, and commentary on, photographic originality across diverse copyright systems. Suffice to say that originality has been recognised as springing from factors across the spectrum of the photographic process, distilling down to three main sources, as summarised in the United States case *Mannion v Coors Brewing Co*.⁵³ First, originality may arise from pre-shoot choices such as selecting location, props, costumes, lighting the scene and posing the subject, as exemplified in Napoleon Sarony’s famous photograph of Oscar Wilde, the subject of *Burrow–Giles Lithographic Co v Sarony*.⁵⁴ Second, in what the *Mannion* court referred to as

⁴⁹ See *Copyright Act* (n 1) s 32.

⁵⁰ *Sands & McDougall Pty Ltd v Robinson* (1917) 23 CLR 49, 55, 57 (Isaacs J). See also *IceTV* (n 9) 474 [34] (French CJ, Crennan and Kiefel JJ): ‘There has been a long held assumption in copyright law that “authorship” and “original work” are correlatives; the legislation does not impose double conditions.’

⁵¹ *IceTV* (n 9) 474 [33].

⁵² *JR Consulting & Drafting Pty Ltd v Cummings* (2016) 329 ALR 625, 672 [264] (emphasis omitted).

⁵³ *Mannion v Coors Brewing*, 377 F Supp 2d 444 (SDNY, 2005) (*‘Mannion’*). A similar triad of creative possibilities was recognised in Hugh Laddie, Peter Prescott and Mary Vitoria, *The Modern Law of Copyright and Design* (LexisNexis, 4th ed, 2011) vol 1 254 § 4.61:

Firstly, there may be originality which does not depend on creation of the scene or object to be photographed or anything remarkable about its capture, and which resides in such specialities as angle of shot, light and shade, exposure, effects achieved by means of filters, developing techniques etc ... Secondly, there may be creation of the scene or subject to be photographed. ... Thirdly, a person may create a worthwhile photograph by being at the right place at the right time. Here his merit consists of capturing and recording a scene unlikely to recur ...

⁵⁴ *Burrow–Giles Lithographic Co v Sarony*, 111 US 53 (1884).

'rendition' originality,⁵⁵ the creative choices made during the actual execution of the photograph may qualify, including framing the shot, focusing, timing, angle, lighting, exposure and filters.⁵⁶ This recognises originality in unstaged, point-and-shoot photography. Third, post-production creative choices may include modifying the composition by cropping, colour and tone manipulation and (today) a host of digital editing techniques.⁵⁷

This seems to compile a healthy suite of creative choices available to the photographic author, such that an unoriginal photograph would seemingly be rare. Nevertheless, some photographs lack sufficient creativity. United States case examples include *Custom Dynamics LLC v Radiantz LED Lighting Inc* (shots of car parts),⁵⁸ *Oriental Art Printing Inc v Goldstar Printing Corp*⁵⁹ (photographs of Chinese food dishes) and *Bridgeman Art Library Ltd v Corel Corp*⁶⁰ (faithful photographic reproductions of paintings).

Due to the correlation between authorship and originality, a contemporary focus of originality discourse is the extent to which technology or machines may disrupt or supplant authorship, and thus originality. This seems particularly pertinent to photographs, in that they are utterly dependent on, indeed would not exist but for, the machine that creates them. From the discussion earlier, we know that despite this reality, there is room to attribute authorship to the photographer, even in a point-and-shoot world. However, the swift technological development since photography's inception has gradually diminished the skill and knowledge required to make a photograph. As cameras become more autonomous, opportunities for authorial intervention correspondingly diminish, and the status of the machine as a mere tool, subordinate to the author's intellect, becomes more complicated. Software embedded in cameras now does much of what photographers used to do manually, and can even employ new technology that performs functions traditional cameras cannot, and never could. Examples include 'HDR' (high dynamic range)⁶¹ and machine learning algorithms such as 'Night Sight', a camera mode for mobile phones that 'stitches long exposures together ... to calculate more accurate white balance and colors'.⁶² Night Sight has been aptly described as 'a stunning

⁵⁵ *Mannion* (n 53) 452.

⁵⁶ See, eg, *Temple Island Collections Ltd v New English Teas Ltd* [2012] EWPC 1.

⁵⁷ See, eg, *Painer v Standard VerlagsGmbH* (Court of Justice of the European Union, C-145/10, ECLI:EU:C:2011:798, 1 December 2011) [2012] ECDR 6, [91]: 'Finally, when selecting the snapshot, the photographer may choose from a variety of developing techniques the one he wishes to adopt or, where appropriate, use computer software'. However, as argued earlier, this originality may come too late, if the photograph has already crystallised. This then more accurately involves creative choices directed to adapting or transforming an existing photograph.

⁵⁸ *Custom Dynamics LLC v Radiantz LED Lighting Inc*, 535 F Supp 2d 542 (ED NC, 2008).

⁵⁹ *Oriental Art Printing Inc v Goldstar Printing Corp*, 175 F Supp 2d 542 (SDNY, 2001).

⁶⁰ *Bridgeman Art Library Ltd v Corel Corp*, 36 F Supp 2d 191 (SDNY, 1999).

⁶¹ Vince Tabora, 'Computational Photography Will Revolutionize Digital Imaging', *Medium* (online, 16 October 2018) <<https://medium.com/hd-pro/computational-photography-will-revolutionize-digital-imaging-a25d34f37b11>>.

⁶² Sam Byford, 'How AI is Changing Photography', *The Verge* (online, 31 January 2019) <<https://www.theverge.com/2019/1/31/18203363/ai-artificial-intelligence-photography-google-photos-apple-huawei>>.

advertisement for how software is now more important than camera hardware when it comes to mobile photography'.⁶³

The technological evolution of photography has been so radical that some contend not even the faintest residue of originality can emerge from the weight of such photographic automation. For example, Hughes argues that

a large percentage of the world's photographs are likely not protected by American copyright law because the images lack even a modicum of creativity; this should also be true of any national copyright laws that apply an 'intellectual creation' standard. Indeed, as digitization makes photography more and more ubiquitous, we have probably already crossed a threshold beyond which most of the world's photographic images are not truly protected by copyright.⁶⁴

Cronin likewise argues that

[t]oday practically anyone using a smartphone camera can easily capture images with clarity unattainable by even the most skilled professional photographer a century ago. Most of these photographs enjoy minimal, if any, copyright protection.⁶⁵

McGowan begrudgingly acknowledges that '[a]t some point, we will have an iconic picture taken with a phone camera that gives its owner no choices to speak of at all; courts will still grant the owner rights.'⁶⁶ Recently, celebrity model Gigi Hadid claimed that no copyright subsists in a photograph of her, because it was simply a quick shot, in a public setting, with no attempt 'to convey ideas, emotions, or in any way influence pose, expression or clothing'.⁶⁷ Likewise, it has been argued that an opportunistic iPhone photograph of a celebrity by a passer-by lacks copyright protection because the photographer put no 'thought at all into the rendition of the photograph', the smartphone camera 'automatically made all sorts of decisions', and even the angle appeared incidental to the photographer needing to be surreptitious.⁶⁸

This focuses our attention on what, if any, vestiges of photographic originality can be detected in the kind of highly automated point-and-shoot photography that generates most contemporary photographs. The only relevant pre-shoot choice in such photographs is the decision to be in the space in which the candid photograph was taken. This decision about location may be too remote from the actual taking of the photograph itself to be a qualifying creative choice. However,

⁶³ Ibid.

⁶⁴ Justin Hughes, 'The Photographer's Copyright: Photograph as Art, Photograph as Database' (2012) 25(2) *Harvard Journal of Law & Technology* 339, 374.

⁶⁵ Charles Cronin, 'Symposium: Possession is 99% of the Law: 3D Printing, Public Domain Cultural Artefacts and Copyright' (2016) 17(2) *Minnesota Journal of Law, Science & Technology* 709, 719.

⁶⁶ David McGowan, 'Copyright and Convergence: A Pragmatic Perspective' in Robert F Brauneis (ed) *Intellectual Property Protection of Fact-Based Works: Copyright and Its Alternatives* (Edward Elgar Publishing, 2009) 233, 246.

⁶⁷ Mike Masnick, 'Crazy Copyright Suit over Gigi Hadid Posting a Photo of Herself to Instagram Shows Absurdity Inherent in Photo Copyrights', *Techdirt* (Blog Post, 28 June 2019) <<https://www.techdirt.com/articles/20190626/17233242482/crazy-copyright-suit-over-gigi-hadid-posting-photo-herself-to-instagram-shows-absurdity-inherent-photo-copyrights.shtml>> quoting memorandum of law in support of Hadid's motion to dismiss a copyright infringement claim regarding Hadid reposting a photo of herself taken by another.

⁶⁸ Matthew L Schafer, 'The Photograph That Broke the Internet Isn't Copyrightable' (2019) 34(2) *Communications Lawyer* 1, 25.

it is closely related to the angle decision that is made immediately before the photograph is taken, which itself is connected to judgments in relation to framing, both of which make order of the space in which the photographer stands. Finally, there is the quintessential decision made by all photographers, the time to press the shutter, discussed in more detail in Part IV below. These choices limited to framing and timing provide, overall, a thinner ‘rendition’ originality, reliant on fewer creative contributions than in the past.

What about post-production creative choices? These raise a question that has not received judicial attention — the question of *when* a photograph crystallises using contemporary technology. Analogue photography was far more processional — there was a separation between the moment of capture, the production of the negative and the printed copy derived from the negative, and there was corresponding debate about the moment the ‘photograph’ eventuated and how to distinguish it from the negative.⁶⁹ For this reason, there was greater scope to argue that post-shoot intellectual labour, for example in the darkroom, could legitimately be considered to shape the photograph before it came into being. Today, however, the digital camera collapses all of this process into one moment, and the photograph is created when recorded in the camera, where it is stored in material form.⁷⁰ The post-processing actions that are applied after that event, for example applying a post-shoot filter, cropping an image, or applying any number of apps in an iPhone camera, arguably come too late to qualify as intellectual labour directed to the production of the ‘photograph’, which has already happened. As argued above, post-shoot labour may be applied to create new expression from that photograph — for example, a filtered version of the photograph, a FaceApp mash up, or perhaps photographs taken by a drone that have been enhanced or modified; however as discussed above in Part I, these will not themselves be ‘photographs’, but at best would be drawings.

IV Photographs and the Moment in Time – Temporal Selection and Originality

Berger has argued:

The true content of a photograph is invisible, for it derives from a play, not with form, but with time. ... a photograph bears witness to a human choice being exercised. This choice is not between photographing X and Y: but between photographing at X moment or at Y moment.⁷¹

Berger goes on to say:

A photograph is a result of the photographer’s decision that it is worth recording that this particular event or this particular object has been seen. If

⁶⁹ Kathy Bowrey, ‘Copyright, Photography and Computer Works: The Fiction of an Original Expression’ (1995) 18(2) *University of New South Wales (UNSW) Law Journal* 278, 282:

Except in the case of the polaroid, the negative must first be developed and then processed, before the ‘expression’ takes shape. Because of this, there is no ‘original’ moment expressed in material form, and it is impossible to distinguish an ‘original’ print from the other authorised copies.

⁷⁰ The definition in the *Copyright Act* (n 1) s 10(1) of ‘material form’ includes ‘any form ... of storage’.

⁷¹ John Berger, ‘Understanding a Photograph’, in Geoff Dyer (ed) *John Berger Selected Essays* (Vintage International, 2003) 215, 216.

everything that existed were continually being photographed, every photograph would become meaningless. The photograph celebrates neither the event itself nor the faculty of sight in itself. A photograph is already a message about the event it records. The urgency of this message is not entirely dependent on the urgency of the event, but neither can it be entirely independent from it. At its simplest, the message, decoded, means: *I have decided that seeing this is worth recording.*⁷²

And that decision needs to be made quickly, given the nature of time. Of this ‘decisive moment’, Cartier-Bresson famously said ‘[t]o take photographs is to hold one’s breath when all faculties converge in the face of fleeing reality’.⁷³

Timing is a recognised candidate for the rendition originality identified in *Mannion*, where the court stated that ‘a person may create a worthwhile photograph by being at the right place at the right time’.⁷⁴ Or, as Ansel Adams said, ‘sometimes I arrive just when God’s ready to have someone click the shutter’.⁷⁵ The *Mannion* court gave examples of photographs ‘strikingly original in timing’,⁷⁶ such as Thomas Mangelsen’s *Catch of the Day*, depicting a salmon that appears to be jumping into the gaping mouth of a brown bear, and Alfred Eisenstaedt’s photograph of a sailor kissing a young woman on VJ Day in Times Square, ‘the memorability of which is attributable in significant part to the timing of its creation’.⁷⁷ Likewise, in *Bauman v Fussell*, Romer LJ identified the skill involved in taking a photograph of two fighting cocks.⁷⁸ While the photographer had no control over the position of the birds, Romer LJ noted the skill required to register the significance of this and then to record the moment in a striking way.⁷⁹ Each of these examples involves photographers deliberately setting out to catch a moment. We intuitively want to reward the photographer for making the effort to find and capture the image, particularly if that comes after a gruelling five-hour hike, or after waiting in the freezing cold for the salmon to leap, or literally putting their lives in danger when chasing storms.⁸⁰ As one photographer defensively explained:

Many of the places that we photographers choose to stand, immediately prior to taking a photograph, are difficult to get to. Sometimes we’ll walk for an entire day just to get to one spot. We get on aeroplanes and fly to the other side of the planet to stand in a particular spot, just prior to taking a photograph.

⁷² Ibid (emphasis in original).

⁷³ Henri Cartier-Bresson quoted in Suler and Zakia (n 40) 130. See Suler and Zakia (n 40) at 128 for the origin of Cartier-Bresson’s use of the term ‘decisive moment’.

⁷⁴ *Mannion* (n 53) 452 quoting Hugh Laddie, Peter Prescott and Mary Vitoria, *The Modern Law of Copyright and Design* (Butterworths, 3rd ed, 2000) vol 1 229 § 4.57. See also *Mannion* at 453.

⁷⁵ Quoted in Jodi Robbins, ‘Behind the Lens with Harold Davis’, *Topazlabs* (Blog Post, 2 February 2017 <<http://blog.topazlabs.com/behind-the-lens-with-harold-davis/>>)

⁷⁶ *Mannion* (n 53) 453.

⁷⁷ Ibid.

⁷⁸ *Bauman v Fussell* [1978] RPC 485 (Court of Appeal of England and Wales) (decided in 1953, reported in 1978).

⁷⁹ Ibid 492–3.

⁸⁰ Which explains why such a photographer might take action against Netflix for reproducing part of their photograph of a storm in *Stranger Things*, a successful Netflix program: see Michael Zhang, ‘Photographer Sues Netflix for Using His Storm Photo for ‘Stranger Things’ *PetaPixel* (online, 18 September 2018 <<https://petapixel.com/2018/09/18/photographer-sues-netflix-for-using-his-storm-photo-for-stranger-things/>>).

We walk, run, swim, wade through rivers, get thigh deep in snow-drifts, climb rock faces, dive to the bottom of the ocean. We evade angry wildlife, dodge idiots in vehicles, risk illness, dismemberment and death. All so we can stand in a very particular spot.⁸¹

Photographs thus extract the static from the kinetic. Again, in Cartier-Bresson's words: '[o]f all the means of expression, photography is the only one that fixes forever the precise and transitory instant'.⁸² The question in the context of copyright subsistence is whether this temporal selection is sufficient to demonstrate originality. Hughes queries whether this prize for serendipitous timing, this 'originality hunting', is really just hard work or good luck that strictly falls short of originality, but which we nevertheless choose to reward through copyright.⁸³ While perhaps a fragile source of originality, temporal selection probably meets the threshold because, in freezing moments of time that will never happen again, photographers alter reality and the photograph evidences the intervention of the author's mind.

However, while all photographs capture moments in time, not all involve timing originality, which requires the mind of an author to decide the moment. Thus, in the United States case *Pagano v Chas. Beseler Co*, the court recognised that '[i]t undoubtedly requires originality to determine just when to take the photograph',⁸⁴ but merely determining the moment was not sufficient; this had to be 'so as to bring out the proper setting for both animate and inanimate objects, with the adjunctive features of light, shade, position, etc'.⁸⁵ In this case, the photograph of the New York City library qualified. It was

admirable [because] [t]he photographer caught the men and women in not merely lifelike, but artistic, positions, and this is especially true of the traffic policeman. The background, taking in the building of the Engineers' Club and the small trees on Forty-First street, is most pleasing, and the lights and shades are exceedingly well done.⁸⁶

Contemporary technology permitting continuous or burst shooting has the potential to disrupt this kind of temporal selection as the basis of originality. Some of these tools can capture 30 or more frames per second of high-resolution images over long periods of time, generating hundreds of thousands of images per hour.⁸⁷ Is the photographer really intellectually responsible for all of these shots? Is the photographer's intellectual effort overlaid across them all? And when does each separate new work emerge from the continuum of almost identical snaps?

⁸¹ 'Why "Right Place, Right Time" Is an Insult to all Photographers', Andy Hutchinson Photography (Blog Post, 2021) <<https://andyhutchinson.com.au/why-right-place-right-time-is-an-insult-to-all-photographers/>>.

⁸² Henri Cartier-Bresson, 'Preface' in *The Decisive Moment: Photography by Henri Cartier-Bresson* (Simon and Schuster, 1952).

⁸³ Hughes (n 64) 410–11.

⁸⁴ *Pagano v Chas. Beseler Co* 234 F 963, 964 (SDNY, 1916).

⁸⁵ *Ibid.*

⁸⁶ *Ibid.*

⁸⁷ See, eg, Adam Griffith, 'Dude, Who Took My Photograph? Curating Automated Photography' *PetaPixel* (online, 1 May 2014) <<https://petapixel.com/2014/05/01/dude-took-photograph-curating-automated-photography/>>.

With this technology, the photographer acts like a curator, more responsible for discovering the gold in the mass of images, than perhaps authoring it. This sifting activity seems to problematise the decisive moment, the capture of which exemplifies the creative core of point-and-shoot photography. This certainly demonstrates the pressures on the doctrine of originality that technological developments can exert. The decisive moment was a more profound moment when each shot had to be laboriously — and expensively — processed through the technological progression of glass, paper, chemicals and film. Film was expensive, and timing needed to be impeccable in order to capture the moment. With the advent of digital photography and continuous shooting mode, the photographer can shoot away with minimal expense and effort, and with little judgment, and no concept of wastage. This is the difference between a single, carefully shot arrow and a scattergun of bullets, or a single harpoon compared to a fishing net. Analogies with the photographer as hunter are germane. Cartier-Bresson himself mentions in the preface to *The Decisive Moment*, ‘I prowled the streets ... ready to pounce, determined to ‘trap’ life’.⁸⁸

Perhaps we can locate originality in today’s progressive photography in the photographer’s choice of the *range* of time and the action occurring within it, shifting from the decisive moment to the decisive period. They decide the broad frame of the photographed content, and decide when to commence the rapid-fire shooting and when to end it. We might argue that shooting in bursts with the intention of discovering or generating a final picture in the curatorial phase after shooting, the photographer is assembling the raw materials to realise a particular imagined moment to be unearthed later. This imagined moment of course assumes the preconception of something. It does not explain the accidental gems that can be captured in rapid-fire photography.⁸⁹ We may also question how different this process of rapid-fire photography is to conventional photography practice? Even Sarony’s 19th century session with Wilde produced 32 photographs.⁹⁰

The resolution of this issue may also, as mentioned above in Parts II and III, depend on how we categorise the photographer’s product. The generation of thousands of images using hyper-fast continuous shooting mode is more akin to the production of a film than a series of thousands of independent photographs. In that case, the photographer-author simply becomes a filmmaker-producer, and is laying claim to the best still images extracted from that film.⁹¹

⁸⁸ Cartier-Bresson (n 82) ‘Preface’.

⁸⁹ Such as the perfectly timed photos at Viktorija Gabulaitė, ‘144 Perfectly Timed Pics That Will Make You Look Twice’, *Bored Panda* (online, 2016) <<https://www.boredpanda.com/funny-perfectly-timed-photos-taken-right-moment/>>.

⁹⁰ ‘The Sarony Photographs of Oscar Wilde’, *Oscar Wilde in America* (Web Page, 2020) <<https://www.oscarwildeinamerica.org/sarony/sarony-photographs-of-oscar-wilde-1882.html>>.

⁹¹ It has been argued that a single frame of a film is a photograph for copyright purposes: see K Lindgren and WA Rothnie (eds), *LexisNexis, Copyright & Designs* (online at 2 December 2020) ‘Photographs’ [6110] (‘*Copyright & Designs*’).

V Photographs and Artificial Intelligence

The preceding Part discussed how technological developments can limit creative choices in contemporary photography to framing and timing, resulting in an arguably vestigial originality. What happens if we then cede these residual creative choices to software, for example, an unmanned drone taking a series of photos of a hotel resort,⁹² or Google's Clips camera that 'uses artificial intelligence to automatically capture important moments in your life'?⁹³

Do we lose these last remnants of photographic originality because it is no longer a human author timing the shot or framing those scenes, but the software employed by the putative author? Here, we can contrast the decisive moment with the *random* moment of the drone, or the *constant* moment of the clip camera. Recognising originality in these circumstances seems to come close to affording a kind of 'copyright in being there'. However, it has been argued that this movement towards the 'constant moment' does not destroy the decisive moment:

The Constant Moment doesn't end any of that. All it does is capture the billion missed Decisive Moments that previously slipped through our fingers, by expanding the available window of temporal curation from 'here and now' to 'anywhere and anytime'.⁹⁴

A similar argument was made in relation to burst technology, discussed above in Part IV. Again, the 'photographer' becomes the curator, sifting through the copious output of these ravenous cameras. However, clip cameras are distinguishable from burst photographs. The former cede all decisions about timing to the software, and the argument that the clip operator has 'framed' the photograph in such a way that it reveals the operator's intellectual conception is extremely weak. The argument becomes baseless in the context of fully automated technology such as drones, surveillance cameras embedded in myriad buildings and devices, Google Maps Street View, satellites, or, as Patry has argued, photographs taken by medical technology where there is no discretion in the placement of the patient.⁹⁵ Human

⁹² See, eg, 'DARPA's New 1.8-Gigapixel Camera is a Super High-Resolution Eye in the Sky', *New Atlas* (online, 11 February 2013) <<https://newatlas.com/argus-is-darpa-gigapixel-camers/26078/>> describing unmanned drones that have 'hundreds of smartphone image sensors to record a 1.8 gigapixel image'.

⁹³ Dan Seifert, 'Google Clips Review: A Smart Camera that Doesn't Make the Grade', *The Verge* (online, 27 February 2018) <<https://www.theverge.com/2018/2/27/17055618/google-clips-smart-camera-review>>. Similar technology is Narrative Clip, which 'automatically documents the user's life by taking a photo every 30 seconds': David Becker, 'Lifelogging Camera Maker Memoto Has a New Name, \$3M in Capital and a Ship Date', *PetaPixel* (online, 4 October 2013) <<https://petapixel.com/2013/10/04/lifelogging-camera-maker-memoto-new-name-3m-capital-ship-date/>>. There is also the now discontinued Autographer, which used 'algorithms and five built-in sensors to make decisions on when to snap ... up to 2,000 high-resolution photos of the course of a single day, giving you a visual record of your life experiences': Michael Zhang, 'Autographer is a New Wearable Camera that Automatically Documents Your Life', *PetaPixel* (online, 24 September 2012) <<https://petapixel.com/2012/09/24/autographer-is-a-new-wearable-camera-that-automatically-documents-your-life/>>.

⁹⁴ Clayton Cubitt, 'The Decisive Moment is Dead. Long Live the Constant Moment', *PetaPixel* (online, 22 May 2013) <<https://petapixel.com/2013/05/22/on-the-constant-moment/>>.

⁹⁵ William Patry, *Patry on Copyright* (Thomson/West, March 2021 update) § 3:118 'Photographs'.

authorship must surely be even more remote in the case of emergent technology involving cameras using AI programs to learn and adapt to user behaviours and patterns.⁹⁶

The editors of Halsbury's *The Laws of Australia* have stated:

There has been some speculation regarding photographs that are 'computer-generated', ie their taking is predetermined by a computer or similar process, such as aerial survey photographs or photographs taken by a satellite, that they may not have an author at all. However, that is to overlook the person who set up the process to take the photographs — of what and when — who surely exercises the required level of authorial contribution. Compare the provisions relating to 'computer-generated works' in the *Copyright, Designs and Patents Act 1988* (UK).⁹⁷

This, of course, overlooks the fact that Australia has no equivalent to s 9(3) of the *Copyright, Designs and Patents Act 1988* (UK),⁹⁸ to which Halsbury's refers. Such automated photographs are, as computer-generated works, likely to lack an author, at least under Australian law.⁹⁹ Applying *Telstra Corporation Ltd v Phone Directories Co Pty Ltd*¹⁰⁰ to photographs, they will likely lack authorship if 'much of the contribution'¹⁰¹ to the form of the photograph is due to the software, or if the photograph is 'essentially computer-generated',¹⁰² 'almost entirely automated',¹⁰³ or 'overwhelmingly the work'¹⁰⁴ of the software. On a qualitative assessment, the relevant questions are whether the photographer was 'controlling the nature of the material form produced by'¹⁰⁵ the software, and whether the software was the 'transformative' step, 'obviously fundamental',¹⁰⁶ of 'central importance'¹⁰⁷ or of 'such overwhelming significance'¹⁰⁸ to the form. In the absence of an equivalent to s 9(3) of the *Copyright, Designs and Patents Act 1988* (UK),¹⁰⁹ successfully claiming authorship of highly automated photographs seems unlikely. The question of whether Australia should adopt a similar provision to protect authorless works — not only photographs — has been considered and recommended.¹¹⁰ If such an amendment were adopted, it would clearly go some way to conferring copyright on

⁹⁶ Byford (n 62).

⁹⁷ Westlaw AU, *The Laws of Australia* (online at 16 December 2020) 23 Intellectual Property, 23.1 'Copyright' [23.1.6390 n 2] ('*The Laws of Australia*').

⁹⁸ The *Copyright, Designs and Patents Act 1988* (UK) (n 12) s 9(3) provides that the author of a computer-generated literary, dramatic, musical or artistic work, 'shall be taken to be the person by whom the arrangements necessary for the creation of the work are undertaken'.

⁹⁹ See generally, Jani McCutcheon, 'The Vanishing Author in Computer-Generated Works: A Critical Analysis of Recent Australian Case Law' (2012) 36(3) *Melbourne University Law Review* 915.

¹⁰⁰ *Telstra v Phone Directories* (n 9).

¹⁰¹ *Ibid* 181 [130] (Yates J) (emphasis added).

¹⁰² *Ibid* 191 [169] (Yates J) (emphasis added).

¹⁰³ *Ibid* 177 [114] (Perram J) (emphasis added).

¹⁰⁴ *Ibid* 171 [89] (Keane CJ) (emphasis added).

¹⁰⁵ *Ibid* 178 [118] (Perram J).

¹⁰⁶ *Ibid* 190 [167] (Yates J).

¹⁰⁷ *Ibid* 170 [88] (Keane CJ).

¹⁰⁸ *Ibid* 191 [169] (Yates J).

¹⁰⁹ See above n 98.

¹¹⁰ Jani McCutcheon, 'Curing the Authorless Void: Protecting Computer-Generated Works following *IceTV* and *Phone Directories*' (2013) 37(1) *Melbourne University Law Review* 46.

AI-produced photographs. However, *Telstra v Phone Directories* clearly illuminated the lack of copyright protection for AI-produced works more than 10 years ago, and there seems little government appetite to remedy that outcome through statutory copyright law reform.

VI Statutory Definition of ‘Author’

The *Copyright Act* defines the ‘author’ of the photograph as ‘the person who took it’.¹¹¹ This raises at least two important questions. First, does the statutory definition of author deem originality to subsist in the photograph? If so, the preceding discussion on originality becomes irrelevant. Second, what concept of ‘taking’ a photograph is reflected in the definition and how does it align with the concepts of photographic originality discussed above?

A Deemed Originality?

Due to the correlative relationship between originality and authorship, does this statutory definition effectively make originality in photographs moot, leaving open the argument ‘that the mere taking of the photograph satisfies the correlative requirements of authorship and originality’?¹¹² This suggests that by assigning authorship, the statutory definition correspondingly allocates — or deems — originality. However, while originality and authorship are correlative, they are distinguishable and separate. Identifying an author does not necessarily identify an original work, and artistic works must be original.¹¹³ There is a split between the author as material fixer¹¹⁴ and the author as intellectual labourer, but these two features are required for both originality and authorship. The statutory definition of author may only therefore be an expedient contrivance for identifying the author as fixer, reflecting case law recognising the author as the person reducing the idea to material form.¹¹⁵ If the statutory definition makes further consideration of originality unnecessary, this narrow interpretation would logically render photocopies original copyright works,¹¹⁶ given that the definition of ‘photograph’ includes products of

¹¹¹ *Copyright Act* (n 1) s 10(1) (definition of ‘author’).

¹¹² *Law of Intellectual Property* (n 15) (Last updated: 4 August 2016) Part II – Copyright and Neighbouring Rights, ‘Originality in relation to Photographs’ [7.385]. This is more robustly asserted at Westlaw AU, *The Laws of Australia* (n 97) 23 Intellectual Property, 23.1 ‘Copyright’ [23.1.610]: ‘While a photograph (see [23.1.600]) must be original to qualify for protection, it appears that this is satisfied by the taking of the photograph itself’. Similarly, it has been asserted that, based on the definition of ‘author’, ‘it seems that a photograph is original by the mere fact that it has been taken’: CCH Intelliconnect, *Australian Intellectual Property Commentary* (Last updated: 13 September 2017) Copyright, ‘Photographs’ [1-760].

¹¹³ *Copyright Act* (n 1) s 32.

¹¹⁴ For the significance of fixation to authorship and copyright subsistence, see Elizabeth Adeney, ‘Authorship and Fixation in Copyright Law: A Comparative Comment’ (2011) 35(2) *Melbourne University Law Review* 677.

¹¹⁵ See, eg, *IceTV* (n 9) 496 [105] where Gummow, Hayne and Heydon JJ insist that copyright subsists ‘by reason of the relevant fixation of the original work of the author in a material form’.

¹¹⁶ As argued in *Law of Intellectual Property* (n 15) (Last updated: 4 August 2016) Part II – Copyright and Neighbouring Rights, ‘Originality in relation to Photographs’ [7.385].

xerography.¹¹⁷ The background to the definition is also relevant. Under the *Copyright Act 1912* (Cth), the person who owned the original negative from which the photograph was made was deemed to be the author.¹¹⁸ Ownership of the copyright in a photograph was accorded to any person that ordered the ‘original’, rather than the ‘author’.¹¹⁹ The *Copyright Act* provides that for photographs taken before the commencement of the Act, the author of a photograph is ‘the person who, at the time when the photograph was taken, was the owner of the material on which the photograph was taken’.¹²⁰ The current definition of ‘author’ was presumably designed to avoid that outcome. It also cures the incongruence of the possibility that an author may be a corporate owner of the material, particularly when authors of photographs also enjoy moral rights.¹²¹

B ‘Taking a Photograph’

The default position under the *Copyright Act* is that the author of a work is the owner of copyright in that work.¹²² Thus, identifying the author under the Act’s definition of ‘author’ is important. This depends on what it means to ‘take’ a photograph.¹²³ If we limit this to the physical action of pressing the button, then the pool of potential authors will be correspondingly diminished. It also likely excludes authors using ‘photographic’ processes that do not involve cameras or other conventional apparatus that we associate with the concept of ‘taking’ a photograph.¹²⁴ Under a formula that focuses on the button pusher, copyright in perhaps the most famous photograph in American copyright law, Sarony’s photograph of Wilde, may not have gone to the renowned Sarony, but to his cameraman Benjamin Richardson, who actually operated the camera.¹²⁵ The objective of defining a photographic author seems to be to allocate authorship to ease identification of the first owner of the copyright.¹²⁶ On a narrow construction of the ‘taker’ as button pusher, the provision provides certainty, clarifying and simplifying ownership by eliminating the potential for claims of singular or joint authorship by multiple parties who might be involved in setting up, designing and curating photographs, including claims that could be made by photography’s subjects.¹²⁷ However, it is unclear why Parliament did not

¹¹⁷ See above n 12 and accompanying text.

¹¹⁸ *Copyright Act 1911*, 1 & 2 Geo 5, s 21 as set out in *Copyright Act 1912* (Cth) sch.

¹¹⁹ *Copyright Act 1911*, 1 & 2 Geo 5, s 5(1)(a) as set out in *Copyright Act 1912* (Cth) sch.

¹²⁰ *Copyright Act* (n 1) s 208(1).

¹²¹ See *Berne Convention* (n 12) art 6bis, which requires moral rights to be conferred on ‘authors’ of works of this kind.

¹²² *Copyright Act* (n 1) s 35(2).

¹²³ See n 112 and accompanying text.

¹²⁴ See above n 12 and accompanying text.

¹²⁵ Eva E Subotnik, ‘The Author Was Not an Author: The Copyright Interests of Photographic Subjects from Wilde to Garcia’ (2015) 39(3) *Columbia Journal of Law & the Arts* 449, 450; Christine Haight Farley, ‘The Lingering Effects of Copyright’s Response to the Invention of Photography’ (2004) 65(3) *University of Pittsburgh Law Review* 385, 434.

¹²⁶ See Kevin Garnett and Alistair Abbott, ‘Who is the “Author” of a Photograph?’ (1998) 20(6) *European Intellectual Property Review* 204, 205.

¹²⁷ See generally Subotnik (n 125). See also Haight Farley (n 125) 433:

who is more responsible for evoking the expression in the face of the great Sarah Bernhardt, Sarony or Bernhardt? And while the pose of a theatrical star may have been in sharp contrast to

simply leave this potential puzzle to be resolved by the statutory definition of a ‘work of joint authorship’,¹²⁸ as is done for all other copyright works with more than one putative author.

The statutory definition of ‘author’ certainly reflects a common understanding of photographic authorship. In *Creation Records Ltd v News Group Newspapers Ltd*, for example, Lloyd J stated:

It seems to me that ordinarily the creator of a photograph is the person who takes it. There may be cases where one person sets up the scene to be photographed (the position and angle of the camera and all the necessary settings) and directs a second person to press the shutter release button at a moment chosen by the first, in which case it would be the first, not the second, who creates the photograph.¹²⁹

Likewise, Haight Farley has argued:

With the benefit of a hundred and fifty years of experience with photography, this choice seems obvious. The person operating the camera always exercises choice in producing a photograph. There are creative choices in the precise timing to click the shutter, the angle of the shot, the frame, the focus, the distance from the subject, the centering of the subject, etc.¹³⁰

However, she also recognises that other minds involved in the photographic process may also merit authorial status, continuing with the qualification that: ‘[o]f course it is possible that a director could dictate many if not most of these choices to the cameraman and therefore be deemed the author even though he did not operate the camera’.¹³¹

If the definition privileges the button pusher, this clearly belies an assumption that the creative ‘moment’ of clicking the shutter captures the intellectual gold. Bowrey says of the definition, ‘[t]his suggests a reversion to the position under the 1862 Act, with copyright again arising from the “original” moment of pushing the button’.¹³² She goes on to say that ‘[t]o award copyright to the “taker” of the photograph was to recognise that the skill involves both an aesthetic and a mechanical understanding and that it makes no sense to judge one as more important than the other.’¹³³

In England, the Whitford Committee recommended that the definition of an author should be redefined as the ‘person responsible for the composition of the

the conventional portrait pose, the result may be more attributable to the celebrity’s experience playing a particular role, than to Sarony.

One of the earliest United Kingdom cases on photographic authorship, *Nottage v Jackson*, also acknowledged that often many humans were involved in the production of a photograph: (1883) 11 QB 627, 632.

¹²⁸ Under the *Copyright Act* (n 1) s 10(1), ‘work of joint authorship means a work that has been produced by the collaboration of two or more authors and in which the contribution of each author is not separate from the contribution of the other author or the contributions of the other authors’.

¹²⁹ *Creation Records Ltd v News Group Newspapers Ltd* (1997) 39 IPR 1, 5.

¹³⁰ Haight Farley (n 125) 434.

¹³¹ *Ibid.*

¹³² Bowrey (n 69) 286.

¹³³ *Ibid.* 287.

photograph'.¹³⁴ This is clearly a much broader concept of photographic author and could capture multiple contributions. The 1981 Green Paper accepted the Whitford Committee recommendation.¹³⁵ However, the 1986 White Paper expressed concern that this definition could permit photographic subjects to claim a contribution to the composition of a photograph.¹³⁶ It preferred a simpler definition of the 'photographer' as author. Ultimately, the *Copyright, Designs and Patents Act 1988* (UK) makes no distinction with respect to photographic authorship, meaning that the author of a photograph is, like all other works, the person who 'creates' it.¹³⁷ Nevertheless, the parliamentary debates shed some light on the concept of authorship of a photograph. During the passage of the Copyright, Designs and Patents Bill 1988 (UK) through Parliament, it was recognised that the concept of authorship was certainly broader than simply identifying the camera operator:

In certain cases someone other than the person who operates the camera will make a substantial creative contribution to the final image — perhaps in the darkroom, perhaps in composing the picture through the viewfinder without actually pressing the button — and it would not be right to deny him a copyright in it on the grounds that he was not the actual photographer.¹³⁸

How relevant is Australia's current statutory definition today? How comfortably does it reflect case law on originality and authorship? It may not be much of an issue, because in most cases, the person pushing the button is also likely to be the person making the creative choices that instil the photograph with originality. For example, Lindgren and Rothnie simply note the definition and then go on to discuss originality.¹³⁹ On the other hand, an interpretation limited to the button pusher as 'taker' may privilege the fixer while denying any rights to the person whose creative choices truly shaped the expression, or made a substantial contribution to it.

Thus we can, and should, adopt a broader view of who 'takes' a photograph, so that the definition can accommodate the creative choices made by persons who do not physically manipulate the camera and thus more faithfully reflect case law on originality and authorship. This approach does not contort the ordinary meaning of 'taking' a photograph. It recognises that 'taking' a photo is a *process* — and is not necessarily an isolated and momentary act of pressing a shutter button. The button pusher may act effectively as the agent of the intellectual labourer, or act as a co-author with one or more other authors. An early example is *Melville v Mirror of Life Co*,¹⁴⁰ where despite one person operating the camera, arranging the subject, and

¹³⁴ Whitford Committee on Copyright and Designs Law, *Report of the Committee to Consider the Law on Copyright and Designs* (Cmnd 6732, 1977) cited in Garnett and Abbott (n 126) 205.

¹³⁵ Department of Trade and Industry (UK), *Reform of the Law relating to Copyright, Designs and Performers' Protection: A Consultative Document* (Cmnd 8302, 1981) cited in Garnett and Abbott (n 126) 205.

¹³⁶ Department of Trade and Industry (UK), *Intellectual Property and Innovation* (Cmnd 9712, 1986) cited in Garnett and Abbott (n 126) 205.

¹³⁷ *Copyright, Designs and Patents Act 1988* (UK) (n 12) s 9(1).

¹³⁸ United Kingdom, *Parliamentary Debates*, House of Lords, 30 November 1987, vol 490, col 883 (Lord Beaverbrook).

¹³⁹ *Copyright & Designs* (n 91) 'Definition of Photograph' [10,140].

¹⁴⁰ *Melville v Mirror of Life Co* [1895] 2 Ch 531.

framing the shot, the author was considered to be the person who was on site and appeared to be in effective control of the shoot.¹⁴¹ This broader concept of ‘taking’ a photograph could also facilitate copyright subsistence in photographs taken in a photo booth, even though a ‘person’ may not physically operate the camera, as required by the definition.¹⁴² Importantly, a liberal interpretation of ‘take’ is consistent with the persuasive case law on photographic originality discussed above in Part III. As already mentioned, this case law recognises that the mechanical act of taking a picture itself is not the only act that imbues the photograph with originality; pre- and post-click intellectual labour is also relevant. Indeed, the act of clicking is only relevant — to originality — to the extent that it captures a moment in time selected by the photographer. Construing the statutory definition to refer only to the mechanical operator of the machine is thus a dangerously simplistic view of photographic authorship. A more liberal notion of the concept of ‘taking’ a photograph is therefore both coherent and desirable.

Australia currently lacks judicial guidance on the meaning of ‘taking’ a photograph. It may be that future cases clarify the meaning of the definition and appropriately recognise the diverse potential candidates that may be recognised as photographic authors. Alternatively, further analysis and consultation with stakeholders could be undertaken to examine whether the definition of ‘author’ should be amended to better reflect the variety of photographic author candidates and avoid a potentially narrow construction. Alternatively, the effect of deleting the definition entirely could be considered. While removing the definition may seem a radical proposal, there are genuine questions as to whether it is efficacious or necessary, and these deserve examination. It is tempting to say that the definition achieves certainty in allocating authorship and, thus, ownership. However, the preceding discussion indicates that it still leaves a number of unanswered questions about who really ‘takes’ a photograph. Without the definition, the *Copyright Act* can allocate authorship through standard copyright principles of authorship and recognise that photographic originality and authorship are not homogenous, and certainly are not necessarily resolved by identifying the person who pushed the button. Further research and analysis could interrogate whether there is anything particularly unique about photography to justify it exceptionally meriting the sole statutory definition of author, particularly an arguably ambiguous one. Its lonely inclusion as the sole definition of authorship in the *Copyright Act* invites the question of why the Act lacks similar definitions for other works, clarifying that the author of a sculpture is the person who sculpted it and the author of a painting is the person who painted it. It would also be useful to consider why Australia is an apparent outlier in defining the photographic author, rather than adapting the position in other common law countries like the United Kingdom, New Zealand and Canada of treating photographic authorship consistently with the (undefined) authorship of other works.

¹⁴¹ Bowrey (n 69) 284.

¹⁴² The author of a photograph is the ‘person who took it’: see n 112 and accompanying text. This seemed to be the view of the Federal Court in *Francis v Allen & Unwin* (2014) 108 IPR 18, where the identity of the subject of a photograph was contested, but the parties and the Court seemed to accept that if the plaintiff was indeed the subject of the photograph ‘she is the artist who owns the copyright’ (at 24 [26]) even though it was taken in a photo booth (at 19 [2]).

VII Conclusions

The radical technological evolution of photography has raised serious questions about how effectively it now comports with concepts of the photograph, authorship, and originality in copyright law. These questions are profoundly resonant in an age of exceptional photographic ubiquity, with estimates that more than 1.4 trillion photographs will be taken in 2021.¹⁴³ We are all photographers now, and rampantly sharing photographs that we take effortlessly on devices that are becoming so sophisticated and automated that their AI may ultimately eclipse any vestige of natural human intelligence, the cornerstone of authorship. This article has demonstrated that, in many cases, there is a considerable misalignment between the *Copyright Act's* statutory definition of 'photograph' and what is taking place in the creative world, and the definition of the 'author' of a photograph may be ambiguous and fail to reflect the true scope of photographic authorship. The highly automated nature of modern photography also challenges photographic originality, particularly photographs largely produced through AI. These factors may result in at least an uncertain copyright status, or a lack or slippage of copyright protection. Such uncertainty may or may not be normatively justified, depending on what we consider to be the right copyright policy goals. These goals may be difficult to formulate, given the very diverse major stakeholders and the wide range of photographic and quasi-photographic material produced today. Whether these issues demand address, and how to resolve them, merits further analysis. This could interrogate in greater detail and scope whether and how the current ambiguity or gaps in protection are sufficiently problematic in practical or normative terms. It could consider whether, in any event, the definition of 'photograph' and/or 'author' should be amended or deleted, or the definition of 'artistic work' should be inclusively defined to better reflect contemporary photographic creativity. It could also consider whether AI-generated photographs should be left in the public domain or protected under a provision deeming authorship to computer-generated works, similar to s 9(3) of the *Copyright, Designs and Patents Act 1988* (UK). Alternatively, it may be sensible to simply await some judicial clarification on the issues, and meanwhile do nothing, knowing that the existing status quo, while perhaps uncertain, has not apparently slowed the rate of photographic production, nor led to a glut of contentious litigation. This article has, it is hoped, at least demonstrated how the impact of technology has raised a number of genuinely difficult and important questions surrounding the place of modern photography in copyright law.

¹⁴³ David Carrington, 'How Many Photos Will Be Taken in 2021?', *mylio.com* (online, 11 March 2021) <<https://focus.mylio.com/tech-today/how-many-photos-will-be-taken-in-2021>> .