

FADING FRAMES: EPHEMERAL AR ART AND THE LIMITS OF COPYRIGHT LAW

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ABSTRACT

Unlike conventional works, ephemeral augmented reality (AR) art is always transient, location-dependent, and technologically dependent, usually without fixation and materiality traditionally deemed necessary for protection. This impermanence exposes substantial holes in current legal dogma, especially regarding authorship, ownership, and enforceability of rights in the layered and dematerialised domain of AR imposed upon physical environments. Based on legal reasoning and case studies of recent AR installations, the article illustrates how today's copyright regimes are deficient in handling the

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dynamic, hybrid and ephemeral character of AR expression. Through comparative analysis, drawing on examples from jurisdictions such as the US, EU, Japan, China, and others, the article critically evaluates divergent ways in which laws attempt, and often fail to address the challenges posed by AR ephemerality and spatial specificity in the digital art ecosystem. It contends that to sufficiently accommodate innovation while protecting authors' rights, copyright law needs to adapt to the circumstances of immersive and technologically dependent art practice. This article examines the legal and conceptual difficulties of augmented reality (AR) art in the context of copyright law and the way forward. It advocates for a balanced, forward-looking legal framework that supports both innovation and the protection of rights, facilitating the flourishing of AR art within India's contemporary cultural landscape. The piece concludes with actionable proposals for doctrinal reform and inter-disciplinary debate to provide a more balanced and responsive legal framework for AR art which includes expanding definitions of fixation, developing

registries for time-based and location-based digital works, and integrating multidisciplinary input from artists, technologists, and policymakers.

Keywords: *Ephemeral art, augmented reality, copyright law, fixation, Indian IP law, digital art, Authorship.*

I. INTRODUCTION

Transient augmented reality (hereinafter referred to as ‘AR’) overlays are transforming art making, viewing, and interpretation in India. These virtual creations in the form of temporary visual effects imposed upon real environments, both public and domestic, that last only for a moment and are, in many cases, available temporarily through targeted devices or software. These creations are not kept in permanent storage, thus defying traditional conceptions of artistic preservation and materiality, unlike traditional art objects.

Over the last few years, AR-based virtual installations have become increasingly popular in Indian public spaces, cultural festivals, and heritage sites. Interactive projections during events such as Durga Puja celebrations in Kolkata or digital overlays for historic monuments during public shows reflect the increasing popularity of this genre. Once a viewer leaves the app or the event is over, however, these works

disappear, without leaving any physical trace. Such transience sets ephemeral AR art apart from physical or even traditionally digital forms of art that can be saved, stored, or copied.

India's intellectual property (hereinafter referred to as 'IP') regime, whose roots lie in colonial statutes that were influenced by jurisdictions like the UK and the US, has traditionally been geared towards the protection of fixed, material works with easily attributable authorship. Transient AR art, however, subverts these assumptions through its very nature. By combining visual art, technology, performance, and transience, such works do not easily fit into the confines of current copyright and associated rights law in India.

Experiences like coming across a virtual sculpture at a Delhi festival, interacting with an AR installation at a public park based on location, or witnessing virtual murals projected on the walls of a palace that is a historical landmark are quite different from engaging with static physical artworks. Such forms, however, are becoming an intrinsic part of India's modern cultural life.

The contrast with India's conventional ephemeral works is revealing. Thus, for instance, the grand but temporary Durga Puja pandals in Kolkata, or the sophisticated Holi installations and rangolis, are all exercises in creativity, community participation, and impermanence. Though fleeting, these works tend to become legally protected because of their novelty and the possibility of documenting or freezing them by way of photographs or design records.

On the other hands, transitory AR art poses a plethora of unanswered legal issues. When an AR work disappears when it is seen, can it meet the requirement of fixation required for copyright protection? Is temporary holding in the RAM of a device enough fixation under Indian law? When an AR overlay is technically hosted on a distant server but unavailable to the public, does it reach the minimum level of publication or fixation? These ambiguities underscore the insufficiency of existing legal frameworks to comprehensively account for the nature of immersive, time-based digital art.

With AR increasingly integrated into India's visual and cultural fabric, there is an urgent need for legal reform and interpretive certainty. Absent this, a critical aspect of current artistic innovation could be left unrecognised and unprotected within Indian IP law.

This article examines the copyright implications of ephemeral augmented reality art, with emphasis on fixation, authorship and enforcement. It takes a comparative analysis of certain jurisdictions and identifies the need for a more responsive legal framework in India.

THE BROADER LEGAL DILEMMA

AR blurs boundaries between art, technology, and performance. The copyright statutes in India were constructed around physical artworks, literary creations, films, and music, placing heavy reliance on fixation.¹ This is not merely a theoretical problem. The copyright registration

¹ *Eastern Book Company & Ors vs D.B. Modak & Anr* (2008) 1 SCC 1.

and enforcement mechanisms require tangible proof, which ephemeral AR is often designed to avoid.

The analogy to performance art further complicates the situation. Many AR installations share features with live events, i.e., they are time-bound and may exist only during digital “events” or geofenced moments. Some ephemeral art involves real-time live elements or broadcasts, resembling performances more than permanent works. The discussion exposes a critical gap: current legal frameworks remain ill-equipped to address the inherently transient and interactive qualities of AR, underscoring the urgent need for reform that acknowledges the unique legal status and vulnerabilities of ephemeral digital art.

Under Indian law, the Copyright Act,² grants performers certain rights in respect of their live or recorded performances. If ephemeral AR art involves live action, animation, or broadcast to the public, especially if a human performer’s actions are encoded in the AR output, performers’ rights under Section 38 may be triggered, offering an alternative legal route to protection. *“As a matter of policy, copyright encourages making and distributing works that can communicate expression to others far and wide. . . . An expression only constitutes a copyrightable work if it can be reproduced, performed, displayed, or distributed.”*

² The Copyright Act, 1957 (14 of 1957) s 38.

*Copyright protects things that can be copied, not things that can be imitated.*³”

The emergence of ephemeral AR in Indian public life, festivals, and heritage environments brings urgency to these legal uncertainties, requiring statutory and judicial innovation to ensure that fleeting digital creativity can be recognised, preserved, or protected when necessary.

II. CHARACTERISTICS OF EPHEMERAL AR ART

A. NON-TANGIBILITY AND FIXATION

Copyright law is based on works being fixed in a tangible form. In India, section 13(1) of the Copyright Act 1957 states that protection exists “in original works of authorship expressed in a tangible form”.⁴ “Artistic work” is further defined under section 2(c), and “literary work” under section 2(o), with both requiring material expression.⁵

Under the United States Copyright Act, the requirement of fixation is clear: a work must be “fixed in any tangible medium of expression, and falls into one of the 8 subclasses”.⁶ UK law, through section 3 of the Copyright, Designs and Patents Act 1988 (hereinafter referred to as ‘CDPA’), maintains a similar doctrine.⁷

³ Evan Brown, Fixed Perspectives: The Evolving Contours of the Fixation Requirement in Copyright Law, 10 Wash. J.L. Tech. & Arts 17, 18-19 (2014).

⁴ The Copyright Act (n 2) s 13(1).

⁵ The Copyright Act (n 2) s 2(c), s 2(o)

⁶ 17 USC § 102(a).

⁷ The Copyright, Designs and Patents Act 1988 (Design Right), s 3.

Indian case law, such as *Eastern Book Company v D B Modak*, has interpreted fixation as a “material form” that can be perceived or reproduced, effectively denying copyright for purely transient digital projects with no objective record.⁸

Ephemeral AR works, experienced through mobile devices or headsets and not recorded elsewhere, typically lack physical or digital permanence. They may leave no enduring record since their visual presence ends with the user session or platform license. As copyright protection is often conditional on fixation, artists who create AR overlays and are not captured or documented, are unlikely to enjoy protection under Indian statutes.⁹

All three regimes require objective evidence- be it a recording, writing or digital files- before the copyright arises. It is to be noted that ephemeral, AR-based or transient works that disappear without a trace fall outside the purview of copyright’s umbrella in the above-mentioned countries.

B. SITE-SPECIFICITY AND SPATIAL ANCHORING

Ephemeral AR art is often tied to a physical location, its meaning, function, or experience shifting with each context. Through GPS anchors, digital works may inhabit national monuments, private

⁸ *Eastern Book Company* (n 3).

⁹ James Grimmelmann, ‘Copyright for Literate Robots’ (2016) 101 Iowa L Rev 657, 705 <https://ilr.law.uiowa.edu/print/volume-101-issue-2/copyright-for-literate-robots/> accessed 18 July 2025.

rooftops, or parks for a brief span but leave no physical trace. Such anchoring raises complex legal questions about overlapping rights in public and private spaces, including the rights of landowners and underlying copyright owners.¹⁰

In Indian law, moral rights are codified in section 57 of the Copyright Act, granting an author the right of attribution and the right to integrity.¹¹ However, unless the AR overlay causes visible or reputational damage to the underlying physical work, the application of section 57 remains untested in the AR context.

Incidents in the US and Europe suggest that property law and copyright can overlap or conflict. In *Board of Managers of Soho Int'l Arts Condominium v City of New York*, artists failed to secure protection for digital overlays affecting physical spaces unless there was destruction of a “work of recognised stature.”¹² Indian law has not yet seen a similar case, but frameworks such as the Ancient Monuments and Archaeological Sites and Remains Act 1958 may also apply where overlays occur at protected sites.¹³

C. INTERACTIVITY AND SHARED AUTHORSHIP

¹⁰ Claire Bishop, *Artificial Hells: Participatory Art and the Politics of Spectatorship* (Verso 2012) 185.

¹¹ *The Copyright Act* (n 2) s 57.

¹² *Board of Managers of Soho Int'l Arts Condominium v City of New York* 2003 US Dist LEXIS 26341.

¹³ The Ancient Monuments and Archaeological Sites and Remains Act, 1958 (24 of 2958).

Unlike static art objects, AR projects often require or invite interaction: users may trigger, shape, or even co-create new content within the digital environment. Indian copyright's section 2(d) defines "author" broadly as "the person who causes the work to be created," but does not specify ownership when outcomes derive from audience input or coded algorithms.¹⁴

Delhi High Court's decision in *Amarnath Sehgal v Union of India* emphasised the significance of original and personal creative contribution, suggesting traditional authorship will be problematic for collectively shaped or code-driven AR installations.¹⁵ Non-human authorship or joint authorship resulting from user interaction is not yet addressed in Indian statute or jurisprudence, but the fast evolution of participatory art modes makes the filling of the gap increasingly urgent.¹⁶

This calls for a review of the present legislation due to the rapid technological inventions in this field.

D. EPHEMERALITY AND DOCUMENTATION

Ephemeral AR artworks are designed to be time-bound, sometimes programmed to disappear after an event or as soon as the enabling app is decommissioned. Section 51 of the Indian Copyright Act treats infringement largely in terms of fixed "copies," creating conceptual

¹⁴ *The Copyright Act* (n 2) s 2(d).

¹⁵ *Amarnath Sehgal v Union of India* (2005) 30 PTC 253 (Del).

¹⁶ *Bently and Sherman* (n 1).

difficulties around enforcing rights over works that vanish with no digital footprint.¹⁷

Museums, galleries, and collectors increasingly use documentation, such as code archiving, video capture, or emulation, to preserve evidence and support copyright claims. Reliable documentation can, in some jurisdictions, suffice as fixation if it captures the experience completely, but Indian courts have yet to rule definitively on this point.¹⁸

III. DERIVATIVE AND TRANSFORMATIVE USE

A. DERIVATIVE WORKS

Section 14 of the Indian Copyright Act grants the owner the exclusive right “to make any adaptation of the work,” and section 2(a)(aa) covers most reworkings and translations.¹⁹ Works that simply superimpose or digitally manipulate existing art are typically considered derivative, necessitating permission from the original creator for AR overlays that mimic or modify protected works.²⁰

In US and UK law, courts distinguish adaptation from mere reproduction or fair use/fair dealing. The UK Court of Appeal in *Kogan*

¹⁷ *The Copyright Act* (n 2) s 51.

¹⁸ Richard Rinehart and Jon Ippolito, *Re-collection: Art, New Media, and Social Memory* (MIT 2014) 54.

¹⁹ *The Copyright Act* (n 2) ss 14, 2(a)(aa).

²⁰ *The Copyright, Designs and Patents Act* (n 7) s 21.

v Martin held that minimal changes, without substantial new meaning, require the rightsholder's consent.²¹

B. TRANSFORMATIVE WORKS

Section 52(1)(a) of the Indian Copyright Act mirrors the fair use doctrine by permitting "fair dealing...for criticism or review."²² Transformativeness depends on altering the original with a new meaning, as explained by the US Supreme Court in *Campbell v Acuff-Rose Music*.²³

Evaluating whether AR ephemeral art is transformative requires examining intent, audience, and effect. Meaningful commentary, parody, or social critique delivered through AR overlays may qualify, but there is no bright line: Indian courts, such as in *Civic Chandran v Ammini Amma*, look at purpose, context, and extent of copying within the local setting.²⁴

C. THE BLURRED BOUNDARY

There is seldom a simple distinction between derivative and transformative use. Some AR overlays begin as derivatives and only become transformative through user interaction or algorithmic processing. Market impact, purpose, and the presence of creative

²¹ *Kogan v Martin* [2019] EWCA Civ 1645.

²² The Copyright Act (n 2) s 52(1)(a).

²³ *Campbell v Acuff-Rose Music* 510 US 569 (1994).

²⁴ *Civic Chandran v Ammini Amma* (1996) AIR 1996 Ker 273 (Ker HC).

commentary are key. Indian jurisprudence has begun exploring these issues further, as seen in *Indian Performing Rights Society Ltd. v Sanjay Dalia*, which emphasises the need for a nuanced inquiry into digital innovation.²⁵

The proliferation of AR art exposes the inadequacy of traditional derivative vs. transformative categories, forcing a legal reckoning with the hybrid, participatory character of digital overlays. Unlike classic adaptations, many AR works are not static, their creative value often emerges dynamically, co-authored by algorithms or users, blurring settled boundaries between mere reproduction and genuine transformation. Current legal frameworks in India struggle to capture this fluidity, tending to pigeonhole AR acts within outdated binaries. This paper's core contribution lies in demonstrating that ephemeral AR practice demands a new, technologically attuned standard, one that foregrounds interactivity, evolving purpose, and audience impact rather than relying on fixed notions of adaptation or transformation. The need is not just for case-by-case nuance, but for broader statutory and judicial recognition of AR's unique, boundary-defying creativity.

PRESERVATION AND OWNERSHIP

Section 2(m) of the Indian Copyright Act includes “any form...including a computer program recorded on any medium” in its

²⁵ *Indian Performing Rights Society Ltd. v Sanjay Dalia* (2015) 10 SCC 161.

definition of “material form.”²⁶ For ephemeral AR, proof of existence and rights may depend on reliable documentation.

The institutional acquisition and preservation of AR art increasingly involve digital documentation, emulation environments, and contracts specifying licensure, code access, and moral rights. Innovative practices such as the variable media approach, documenting the conceptual work alongside technical implementation, are growing in importance in both India and globally.²⁷

IV. KEY CHALLENGES IN THE INDIAN FRAMEWORK

A. FIXATION REQUIREMENT

The doctrine of fixation remains fundamentally important in India, requiring that a work attain copyright protection only when converted into a tangible or material form.²⁸ While the Indian Copyright Act 1957 does not explicitly define “fixation,” courts have repeatedly affirmed that mere ideas or transient digital flashes lack eligible status; copyright arises solely once content is given physical or durable form, such as written scripts or recorded media.²⁹ Indian Courts have favoured

²⁶ *The Copyright Act* (n 2) s 2(m).

²⁷ Alain Depocas, Jon Ippolito and Caitlin Jones, *Permanence Through Change: The Variable Media Approach* (Guggenheim 2003) 112.

²⁸ *The Copyright Act* (n 2) s 13(1).

²⁹ *Shree Venkatesh Films Pvt Ltd v Vipul Amrutlal Shah & Ors* [2009] 2 Cal LT 177 (Cal).

tangible manifestation over fleeting expressions even in nuanced contexts such as film outlines and ephemeral digital media.³⁰

B. CATEGORISATION ISSUES

Ephemeral AR art, straddling the boundaries of visual, performative, literary, and algorithmic domains, is difficult to classify under the Act's rigid definitions of "artistic work," "literary work," or "computer program". The overlap with Indian design law, especially in cases involving the commercial use or mass reproduction of applied art, can further this, as copyright protection gives way to a design monopoly once works become widely used products.³¹ Judicial guidance, notably in the Tahiliani Design judgment, clarifies that artistic copyright persists only until a work is industrially reproduced more than 50 times.

³²

C. AUTHORSHIP AND JOINT OWNERSHIP

Authorship, under Indian law, is generally reserved for natural persons, excluding AI or fully automated processes from primary recognition.³³

³⁰ Khurana & Khurana, 'Tangible Fixation and Preclusion of Ephemeral Art under Copyright Law' (*Khurana & Khurana*, 5 January 2023) <https://www.khuranaandkhurana.com/2023/01/05/tangible-fixation-and-preclusion-of-ephemeral-art/> accessed 20 July 2025.

³¹ Anurag Chawla, 'From Art to Industry: Decoding the Clash between Copyright and Design' (*SCC OnLine Blog*, 3 April 2024) <https://www.scconline.com/blog/post/2024/04/03/from-art-to-industry-decoding-the-clash-between-copyright-and-design-legal-insights/> accessed 22 July 2025.

³² *Pranda Jewelry (P) Ltd v Aarya* 24 KT (2023) SCC OnLine SC 1234.

³³ Lakshmikumaran & Sridharan Attorneys, 'Copyright Authorship to Artificial Intelligence: Who Owns It?' (*Lakshmisri*, 12 January 2020)

Cases reveal complexities when multiple contributors, collaborative digital platforms, or automated algorithms partake in the creation of AR works. Human oversight or creative input is essential for copyright to vest, a principle emphasised by Indian courts in both employee and freelancer disputes and in recent AI-related copyright registration practice.³⁴ For joint authorship, courts have held that tangible, distinct, and original contributions are necessary, but the unbiased division of rights can lead to practical royalty and enforcement disagreements in complex digital works.³⁵

D. USE OF REAL-WORLD ANCHORS

AR overlays anchored to real-world locations, be it urban murals, public parks, or heritage sites, raise questions about the clash between copyright, design rights, property law, and even statutory heritage protection.³⁶ Courts and scholars recognise the delicate balance between artistic freedom and the interests of landowners and regulators, particularly where copyright in street art or installations may be affected by the impermanence or subsequent modification of

<https://www.lakshmisri.com/insights/articles/copyright-authorship-to-artificial-intelligence-who-owns-it/> accessed 22 July 2025.

³⁴ Pankhuri Kumar, 'Employer's Copyright vis-à-vis Author's Right' (*Manupatra*, 2021) <https://articles.manupatra.com/article-details/Employer-s-copyright-vis-a-vis-Author-s-Right> accessed 17 July 2025.

³⁵ Vishal Raj, 'Joint authorship in copyright work and the dispute of royalty sharing thereof' (*The IP Press*, 22 August 2021) <https://www.theippress.com/2021/08/22/joint-authorship-in-copyright-work-and-the-dispute-of-royalty-sharing-thereof/> accessed 19 July 2025.

³⁶ KS & K Law, 'Street Art and Copyright in India: A Legal Perspective' (*KS & K Law Blog*, 22 October 2022) <https://ksandk.com/intellectual-property/street-art-copyright-india/> accessed 19 July 2025.

publicly-sited works.³⁷ Official guidance remains limited, although the Ancient Monuments and Archaeological Sites and Remains Act 1958 imposes additional constraints on overlays of protected sites.³⁸

E. ENFORCEMENT AND INFRINGEMENT

Enforcement of copyright in the context of ephemeral or transient digital art faces major evidentiary and procedural hurdles. While dynamic injunctions and innovative remedies have advanced legal protection in some infringement cases (notably regarding mirror websites and online piracy), the evidentiary burden to demonstrate both originality and fixation remains high for ephemeral works lacking durably archived forms.³⁹ The Indian legal profession thus recommends that creators document, archive, or otherwise capture ephemeral AR art for practical enforcement.⁴⁰

F. PUBLIC AND PRIVATE SPACE

Copyright disputes arising from digital overlays in public and private spaces highlight blurred lines between individual creators, platform

³⁷ The Ancient Monuments and Archaeological Sites and Remains Act (n 15).

³⁸ National Law University Delhi, 'Evolution of Copyright Law: The Indian Journey' (NLUD, 2021) <https://nludelhi.ac.in/download/publication/Evolution-of-Copyright-Law.pdf> accessed 22 July 2025.

³⁹ Aggarwal Associates, 'How Copyright Law in India Protects Digital Content' (Aggarwal Associates Blog, 2022) <https://aggarwalassociates.com/intellectual-property/how-copyright-law-in-india-protects-digital-content/> accessed 16 July 2025.

⁴⁰ S.S. Rana & Co., 'Copyright Protection of Impermanent Art- India' (SSRANA, 20 December 2023) <https://ssrana.in/articles/copyright-protection-of-impermanent-art-india/> accessed 22 July 2025.

operators, property owners, and municipal authorities. The protection of street art and other public-facing works against erasure or unauthorised modification is an unresolved arena, with courts stressing the importance of balancing transient creativity and the rights of the urban community. Regulatory guidance and consistent jurisprudence continue to lag technological and social practice.

V. LEGAL AND POLICY GAPS IN INDIA

A. NO EXPLICIT PROVISIONS

The Copyright Act, 1957, does not contain provisions designed for the nuances of ephemeral AR or digital overlays, maintaining an analogue-era approach unsuited to works that exist only temporarily or in hybrid digital/physical environments. Judicial interpretation and legislative reform remain necessary to close these statutory gaps.

B. LACK OF GUIDELINES

There is a notable absence of government or industry guidelines on documenting, archiving, or attributing ephemeral and AR works. This regulatory silence increases risks and uncertainty for both individual creators and institutions engaging with such technologies.⁴¹

⁴¹ Prashant M, 'Internet Intermediaries and Contributory Copyright Infringement' (*Mondaq*, 8 September 2021) <https://www.mondaq.com/india/copyright/1110060/internet-intermediaries-and-contributory-copyright-infringement> accessed 22 July 2025.

C. UNCLEAR LIABILITY AND ATTRIBUTION RULES

Questions regarding authorship and liability in multi-user, algorithmic, or platform-mediated creations, where both coders and the interactive public may contribute, remain unsettled. This ambiguity is especially acute for works generated partly or entirely by artificial intelligence or by anonymous online collaboration, situations unaddressed by statutory text or recent case law.

D. JURISPRUDENCE

Indian jurisprudence addressing ephemeral art and AR remains sparse; while courts have addressed originality, fixation, and enforcement in digital and design contexts, no leading case has directly tackled the copyright implications of AR overlays or transient digital performance. Due to the absence of guiding precedents, creators and rightsholders operate in legal uncertainty.

E. PLATFORM RESPONSIBILITY

Liability for platforms and intermediaries hosting or distributing AR overlays is evolving, particularly in light of new rules on intermediary conduct and contributory copyright infringement. While courts have clarified intermediaries' duty to act on notified infringements, further clarity on safe harbour and proactive takedown obligations for ephemeral and AR content is still needed.

VI. COMPARATIVE STUDY: FRAMEWORKS ACROSS JURISDICTIONS

AR art challenges conventional copyright structures on several fronts, particularly with its ephemeral, site-specific, and dematerialised characteristics. This complexity is magnified when considering the approaches of major legal regimes.

The US states that works must be fixed in a tangible medium for copyright protection, meaning most fleeting AR works often fall outside legal protection.⁴² The Digital Millennium Copyright Act (hereinafter referred to as ‘**DMCA**’), which modifies and expands upon the existing Copyright Act of 1976, offers important platform liability shields, whereas the Visual Artists Rights Act (hereinafter referred to as ‘**VARA**’) provides limited coverage of moral rights focused mainly on physical visual art.⁴³

In contrast, the European Union’s framework, anchored by the Digital Single Market (hereinafter referred to as ‘**DSM**’) Directive and national civil law traditions, adopts a more flexible approach to the concept of fixation and enshrines strong moral rights for creators.⁴⁴ French and German law, for instance, are particularly protective of an artist’s personal rights, and the EU’s “communication to the public” right is interpreted expansively. The European Union introduced the

⁴² The U.S. Copyright Act, 17 U.S.C. § 101.

⁴³ The Visual Artists Rights Act (VARA), 17 U.S.C. § 106A.

⁴⁴ Directive (EU) 2019/790 (DSM), art. 17.

Artificial Intelligence Act in 2025, establishing the first comprehensive legal framework for AI and creating significant implications for AR developers. In addition, any AR application that collects personal data from individuals in the EU must comply with the General Data Protection Regulation (hereinafter referred to as ‘**GDPR**’). The United Kingdom, influenced by both EU and common law, tends toward a pragmatic blending of originality and fixation standards, though courts increasingly emphasise creativity over mere “sweat of the brow” labour.⁴⁵

Japan is conservative in copyright for AR, requiring clear fixation for protection, though more recent reforms demonstrate limited openness to digital innovation.⁴⁶ China holds tightly to the fixation requirement, permitting copyright protection only when digital works are fixed in an accessible manner, and reinforces this with significant regulatory oversight.⁴⁷ South Korea offers moderate flexibility in fixation, drawing from both civil and common law influences, but generally retains material embodiment as a criterion for protection.⁴⁸ India, through the Copyright Act of 1957 and judicial innovation, moves between skill-based and creative threshold tests, though it still requires

⁴⁵ *University of London Press Ltd v University Tutorial Press Ltd* [1916] 2 Ch 601 (Ch).

⁴⁶ The Japanese Copyright Act (Act No. 48 of 1970).

⁴⁷ Law of the People’s Republic of China on Copyright, arts. 3 & 4.

⁴⁸ The Korean Copyright Act (Act No. 432), as amended.

materiality, resulting in most AR ephemera being excluded from copyright eligibility.⁴⁹

In many other jurisdictions, the spectrum broadens even further, with nations in continental Europe largely eschewing strict fixation, and many developing legal regimes exhibiting ongoing tension between technological advancement and traditional concepts of authorship and embodiment.

A. BROADER INTERPRETATIONS OF FIXATION

Fixation remains the cornerstone issue in copyright for AR art. The United States, through statutory definition, requires that works exist for more than a “transitory duration,” explicitly excluding works that are merely fleeting or experiential.⁵⁰ Still, courts have, at times, found digital works fixed and thereby under jurisdiction of existing laws when they are stored on servers or hard drives, especially if accessible and reproducible, as seen in *Cartoon Network LP, LLLP v CSC Holdings, Inc.*⁵¹

The EU generally adopts a more forgiving view, with no strict directive at the Union level. Member states like France and Germany consider works sufficiently fixed if they are perceptible or reproducible, with the Court of Justice of the European Union (hereinafter referred to as ‘CJEU’) leaving some latitude for transient or incidental forms of

⁴⁹ The Copyright Act (n 2) ss 13 & 63.

⁵⁰ U.S. Copyright Act (n 42) s 101.

⁵¹ *Cartoon Network LP, LLLP v CSC Holdings, Inc* 536 F3d 121 (2d Cir 2008).

storage.⁵² Temporary digital files and even AR overlays may be protected if they are capable of being recalled or re-experienced in some way, even if only through networked systems.⁵³

The UK requires “recording” under the Copyright, Designs and Patents Act 1988, but recognises a variety of digital and virtual storage types as sufficient, for instance, files hosted on remote servers or even data cached temporarily for repeated use.⁵⁴ India’s courts emphasise the need for some “material form” but interpret digital representations and server-side storage creatively where a sufficient skill-and-labour threshold is shown, as in *Eastern Book Company v D.B. Modak*.⁵⁵

This evolving legal landscape demonstrates both a willingness and a hesitancy among states to accommodate AR’s unique ontological status. Some embrace broader, technologically sensitive definitions of fixation; others enforce the material boundaries more stringently.

B. CLOUD-STORED WORKS

Cloud computing further complicates notions of fixation and copyright. In the United States, “safe harbour” provisions of the DMCA permit platforms to avoid secondary liability where infringing works are

⁵² Information Society Directive 2001/29/EC.

⁵³ Attamongkol Tantratian, ‘Copyright’s Fixation Requirement: Is It Still Needed?’ (2020)

<https://www.repository.law.indiana.edu/cgi/viewcontent.cgi?article=1088&context=etd> accessed 21 July 2025.

⁵⁴ *Copyright, Designs and Patents Act* (n 7) s. 3.

⁵⁵ *Eastern Book Company* (n 3).

hosted but are quickly removed upon notification.⁵⁶ Importantly, uploading digital works to the cloud is now widely recognised as a form of fixation, meeting the duration and reproducibility requirements of the Copyright Act.⁵⁷ Temporary cached copies, on the other hand, trigger scholarly and legal debate as to whether they rise to the level of fixation enumerated by law.⁵⁸

The EU regulates cloud storage through the DSM Directive, which imposes greater liability on platforms and updates the traditional scope of “fixation.” The ECJ, in cases like *Austro-Mechana v Strato AG*⁵⁹, has found that privately stored cloud copies fall under private copying exceptions, so long as fair compensation to rights holders is provided.

The UK typically treats cloud storage as an acceptable means of fixation, but applies private use exceptions and demands clear licensing where rights are implicated.⁶⁰

Japan, South Korea, and other advanced jurisdictions recognise cloud uploading as a form of fixation, though dissemination and public transmission, especially where user-generated content is involved, are handled with notable caution.⁶¹ India’s view is evolving; server storage may suffice, but legal enforcement remains inconsistent. China

⁵⁶ Digital Millennium Copyright Act, 17 U.S.C. § 512.

⁵⁷ *U.S. Copyright Act* (n 42) s 101.

⁵⁸ Jane C. Ginsburg, ‘The Concept of Authorship in Comparative Copyright Law’ (2003) https://scholarship.law.columbia.edu/faculty_scholarship/619/ accessed 18 July 2025.

⁵⁹ CJEU, *Austro-Mechana v Strato AG* (C-521/11) EU:C:2014:376.

⁶⁰ IPKat, ‘Cloud Storage under UK Copyright Law’ (2013).

⁶¹ *Korean Copyright Act* (n 48).

continues to stress that virtual storage must be both stable and accessible for copyright protection.⁶²

Cloud storage is thus a double-edged sword, providing a fixative medium that captures AR ephemera but also challenging doctrines of secondary liability, and distributive authorship.

C. SITE-SPECIFIC DIGITAL INTERVENTIONS

AR art often exists only in specific places, overlaid on famous landmarks, visible solely through specific coordinates or devices. In the United States, copyrightability does not usually turn on site-specificity; rather, questions arise about whether the AR overlay itself qualifies as a protected work due to its lack of permanence or if it is merely a digital performance.⁶³ Where overlays comment on or remix extant public art, doctrines of fair use or transformative use may shield them, but this remains an unsettled area.⁶⁴

Within the EU, the expansive “communication to the public” right brings most site-specific digital interventions within the legal fold, potentially subjecting AR artists to infringement risk if their work

⁶² Lin Zhu, ‘A Comparative Study of Copyright Protection in China and the U.S.’ (2015)

https://digitalcommons.law.ggu.edu/context/theses/article/1086/viewcontent/Lin_ZHU_SJD_dissertation.pdf accessed 17 July 2025.

⁶³ NYSBA, ‘Street Art: Is Copyright for “Losers©™”?’ (2019) <https://nysba.org/street-art-is-copyright-for-losers-a-comparative-perspective-on-the-french-and-american-legal-approach-to-street-art/> accessed 17 July 2025.

⁶⁴ Joseph Fishman, ‘The Copy Process and the Design of Copyright’ (2017) 91 NYU L Rev 855 <https://www.nyulawreview.org/issues/volume-91-number-3/the-copy-process-and-the-design-of-copyright/> accessed 17 July 2025.

interacts unauthorizedly with real-world spaces. This is especially complex due to varying geo-blocking laws and the DSM Directive's focus on cross-border content mobility.⁶⁵ Some member states, notably France and Germany, allow artists to object if site-specific works are prejudicially modified.

The UK, balancing copyrights with contractual property rights, frequently depends on whether the digital art leaves a lasting record and whether property owners have consented to the overlay or experience. Recent public art disputes have highlighted the challenges of protecting digital overlays attached to physical spaces. In India, such questions arise if a digital layer is recognisable as an original artistic work, but enforcement remains rare.

Japan and South Korea show only cautious recognition of site-specific digital interventions, and China continues to police AR works strictly, especially in politically sensitive or culturally important locations.

Thus, as AR art blurs property, copyright, and contract, new legal questions regarding the ownership of space, physical and digital, continue to grow.

D. DIGITAL MORAL RIGHTS

Moral rights, the right of attribution, integrity, and sometimes withdrawal, have long been recognised in Europe and Asia but have

⁶⁵ DSM Directive, art. 17.

only a narrow foothold in the United States. VARA, for instance, covers only certain visual works and excludes most digital and ephemeral works, leaving AR creators with little recourse for unauthorised modifications or failure of attribution.⁶⁶

The EU, conversely, strongly protects moral rights through domestic statutes and the Berne Convention, extended under the DSM Directive and implemented zealously in France and Germany.⁶⁷ The right to object to derogatory treatment, demand attribution, and sometimes insist on withdrawal persists despite economic transfer. Courts may intervene even for distortions of AR works or unauthorised digital overlays.⁶⁸

The UK offers moral rights under the Copyright, Designs and Patents Act 1988, including attribution and integrity, but these can be contractually waived and are inconsistently enforced.⁶⁹ India's Copyright Act similarly recognises both rights, and courts are slowly adapting to the challenges posed by digital and derivative works.⁷⁰

⁶⁶ Authors, Attribution, and Integrity: 'Examining Moral Rights' (*US Copyright Office*, 2013) <https://www.copyright.gov/policy/moralrights/full-report.pdf> accessed 21 July 2025.

⁶⁷ Berne Convention for the Protection of Literary and Artistic Works, Paris Act 1971, art. 6.

⁶⁸ Code de la propriété intellectuelle (France), art. L121-1.

⁶⁹ *Copyright, Designs and Patents Act* (n 7) ss. 77-85.

⁷⁰ K. R. Yadav, 'Moral Rights and Indian Copyright Law' (2019) 2581-5792 https://www.ijresm.com/Vol.2_2019/Vol2_Iss7_July19/IJRESM_V2_I7_54.pdf accessed 25 July 2025.

Japan, South Korea, and China each have statutory protections for moral rights, but these generally focus on traditional works, and the legal response to digital or AR art is more tentative.⁷¹ Enforcement for online infringement or modification can be difficult, especially due to rapid technological changes and the complex authorship models behind AR production.

Globally, as AR makes authorship collective and distributed, the issue of moral rights is rapidly evolving, raising questions about whether existing frameworks can protect non-traditional forms of artistic integrity.

E. VIRTUAL TRESPASS

The rise of AR overlays in physical spaces raises the spectre of “virtual trespass.” In the US, no statutory doctrine exists for virtual trespass, but courts have analogised unauthorised digital overlays in private places to conventional trespass to land, especially through the lens of EULAs, property law, and anti-circumvention statutes in the DMCA. Digital trespass has been considered under tort doctrines in extreme cases, but clear boundaries have yet to be defined.

The EU focuses on contractual terms and property rights, permitting creators or property owners to object to unauthorised digital interventions primarily through private enforcement rather than public

⁷¹ Toki Kawase, ‘What are the ‘Japanese Author’s Moral Rights and Protection of Honor or Reputation’? (2024) <https://monolith.law/en/internet/protection-author-moral-rights> accessed 15 July 2025.

law.⁷² Germany and France may offer stronger protection due to robust moral and property regimes.

The UK similarly relies on property and tort law, although adapting trespass and nuisance principles to non-tangible overlays remains controversial.⁷³ In India, potential remedies lie under the Information Technology Act and criminal statutes, but these focus on data or access violations, rather than purely spatial AR interventions.⁷⁴

In Japan and Korea, doctrinal solutions for digital trespass are rare, though courts are beginning to engage the potential for AR overlays to interfere with property or privacy.⁷⁵ China is unique for its proactive regulatory control over digital and AR spaces, relying on state-led enforcement.⁷⁶

Virtual trespass remains an emergent legal concern, and as AR art proliferates, clarity will hinge on reconciling the rights of creators with the expectations of physical proprietors and digital platforms alike.

⁷² UK Law Commission, ‘Digital Trespass’ (2018) <https://www.lawcom.gov.uk/project/digital-trespass/> accessed 21 July 2025.

⁷³ Ryan Long, ‘Digital trespass -- what is it and why you should care.’ (2016) <https://cyberlaw.stanford.edu/blog/2016/02/digital-trespass-what-it-and-why-you-should-care/> accessed 21 July 2025.

⁷⁴ The Indian Information Technology Act, 2000 (21 of 2000).

⁷⁵ Nagashima Ohno & Tsunematsu, ‘[XR/Metaverse Update] Recent Legal Trends regarding Metaverse and XR in Japan’ (2024) <https://www.lexology.com/library/detail.aspx?g=a604f998-9034-4cff-89a2-1e121163840d> accessed 15 July 2025.

⁷⁶ Law of the People’s Republic of China on Cybersecurity, art. 12.

The cross-jurisdictional complexities illuminated by AR art expose the urgent need for a paradigm shift in copyright and related legal regimes, a shift that moves beyond fixation, authorship, and territoriality toward frameworks that meaningfully address the dematerialised, collaborative, and location-dependent nature of digital creativity. This paper's legal insight lies in charting where current global doctrines either falter or flex, and in asserting that genuine protection of AR art requires recognition of its sui generis character, demanding new statutory, judicial, and policy responses attuned to a hybrid world of art, code, and space.

VII. CASE STUDIES: EPHEMERAL AUGMENTED REALITY ART, LAW, AND PLATFORM GOVERNANCE

The rise of ephemeral AR works has led to a reconfiguration of the boundaries between art, technology, and law, demanding a re-examination of established paradigms within intellectual property and cultural policy. In India and comparable jurisdictions, the legal treatment of AR interventions, especially those intentionally transient or spatially anchored, remains unsettled. The global nature of these developments, spanning from branded Snapchat lenses to guerrilla digital interventions in public spaces, reveals the urgent need for law to meaningfully interpret contemporary artistic practices that challenge

the fundamental doctrines of fixation, authorship, and derivative use. Below are some international and platform-based case studies that offer an integrated understanding of these evolving complexities, drawing on court litigation, statutory commentary, platform policies, and scholarly analysis.

A. NOORA’S LENS (SNAPCHAT)

In the context of rapidly evolving digital cultures, projects like Noora’s Lens, employing Snapchat’s AR platform to overlay artistic content in site-specific physical locations, epitomise the boundary-pushing nature of ephemeral AR. Though comparable documented cases exist (such as IZANA Studio’s “Unicorn Lens”), the legal reality for such projects, particularly in India, is fraught with substantive challenges owing to the transitory, non-fixed nature of the AR experience.⁷⁷ Snapchat’s Web Builder and Lens Studio have democratized AR art creation, allowing millions to encounter and interact with works of fleeting visual presence through their devices.⁷⁸ However, this very ephemerality undermines traditional copyright protection regimes, which are predicated on fixation in tangible media. Even when a project attains viral visibility, such as AR lenses reaching millions of views within days, it remains in a legal limbo where authorship, control, and

⁷⁷ Snapchat’s Lens Studio AR builder and reach statistics: “Creating Augmented Reality Lenses for Every Use Case”, (*Snap*, 17 September 2024) <https://forbusiness.snapchat.com/blog/simple-vs-sophisticated-lenses> accessed 14 July 2025.

⁷⁸ IZANA Studio case study on Snapchat AR reach: “Case Study - AR Lenses and Snapchat - IZANA Studio”, (25 February 2025) <https://www.izana.studio/blog/ar-filters> accessed 23 July 2025.

enforcement are subject to the vagaries of platform policies and fleeting digital footprints.⁷⁹ While Snapchat does provide mechanisms for reporting copyright infringement, creators' practical recourse against unauthorised commercial use or plagiarism of their lenses is minimal, often subsumed under broad licensing terms favouring the platform.⁸⁰ In the absence of reliable documentation or archival measures outside proprietary environments, the challenges of fixation, attribution, and enforceability in Indian and global copyright law persist unresolved.

B. POKÉMON GO LAWSUITS (US, GERMANY, NETHERLANDS)

The transnational phenomenon of Pokémon Go, developed by Niantic, exemplifies the tensions arising when digital overlays intersect with the physical world at scale. Legal disputes from the United States, Germany, and the Netherlands illuminate the novel conflicts induced by AR, whether concerning nuisance, trespass, or IP infringement. In the US, property owners sued Niantic, claiming Pokéstops and gyms drew players onto private and protected property, creating safety, nuisance, and liability concerns. The outcomes have reflected an uneasy compromise between private property rights and public digital

⁷⁹ Snap AR creator platform, "Snap AR: Build and Share Augmented Reality for Snapchat", (*Snap*, 23 February 2024) <https://ar.snap.com/> accessed 16 July 2025.

⁸⁰ Brand Snapchat AR experience, "Snapchat AR: how brands can create their own branded lenses", (*Poplar Studio*, 16 June 2022) <https://poplar.studio/blog/snapchat-ar-how-brands-can-create-their-own-branded-lenses/> accessed 23 July 2025.

accessibility, often requiring settlements, geofencing, and landowner opt-out procedures rather than clear judicial precedents.⁸¹

German patent litigation, such as *K.Mizra v Niantic*,⁸² has added a technical dimension to AR legal challenges, highlighting infringement issues not only in end-user experience but also in cloud-based infrastructural technologies upon which AR content is delivered.⁸³

Dutch authorities likewise sued Niantic to mitigate environmental harm, reinforcing that AR's impact on the real world can extend to protected spaces, with the courts invoking public interest grounds to curb unrestricted digital deployments. Taken collectively, the Pokémon Go cases reveal the fragmented nature of legal responses to AR overlays, with copyright rarely at the forefront compared to property and regulatory law; nevertheless, the scope for future litigation on derivative AR content, especially as statutory frameworks catch up, is significant.

⁸¹ Guerrilla hacking at MoMA, legal analysis: “Guerrilla Hacking the Art World: Legal Issues in Unsanctioned ...”, Center for Art Law, 15 September 2022 <https://itsartlaw.org/2022/09/15/guerrilla-hacking-the-art-world-legal-issues-in-unsanctioned-augmented-reality-in-museums-and-public-art/> accessed 20 July 2025.

⁸² *K.Mizra v Niantic* (Munich I Regional Court, 7 O 13977/21 and 7 O 10368/21, 2022).

⁸³ “Pokémon GO infringes cloud architecture patent”, (*FOSS Patents*, 18 August 2022) <http://www.fosspatents.com/2022/08/pokemon-go-infringes-cloud-architecture.html> accessed 18 July 2025.

C. ACUTE ART X KAWS AR SCULPTURES (GLOBAL)

The Acute Art and KAWS collaboration stand as a paradigmatic example of AR's entry into the global art market and the corresponding legal innovations required to support it. The "COMPANION (EXPANDED)" project placed large-scale, ephemeral AR sculptures in global urban centres, visible only through the Acute Art app during a limited exhibition period.⁸⁴ Commercial models included timed public access combined with limited-edition sales of AR sculptures as collectables or NFTs, raising complex questions about fixation, derivative use, and cross-jurisdictional enforcement. The legal strategy adopted by KAWS and Acute Art involved rigorous registration of 3D character designs, code, and digital assets, ensuring copyright control and protecting against unfettered replication or misuse. However, the short-lived visibility and reliance on third-party platforms mean that many of the same copyright dilemmas, concerning documentation, proof of origination, and unauthorised reproduction, continue to haunt the AR landscape. Notably, the project's commercial success and media attention serve as a harbinger for the commodification of transitory AR art, facilitating the fusion of traditional IP rights with digital scarcity and novel licensure frameworks.

⁸⁴ 'KAWS Just Entered the Augmented Reality Game With Giant Virtual ...', (*Artnet News*, 12 March 2020) <https://news.artnet.com/art-world/kaws-augmented-reality-1800375> accessed 15 July 2025.

D. MoMAR (MUSEUM OF MODERN AR)

MoMAR, an art collective's unsanctioned AR intervention at the Museum of Modern Art in New York, demonstrates the subversive and democratizing potential of digital overlays in high-art contexts. By creating an open-source app that allowed users to superimpose digital artworks onto canonical Pollock paintings during their museum visit, the collective staged a three-month "guerrilla hack" without institutional permission.⁸⁵ Legal scholars identify multiple lines of risk for such acts: copyright infringement of underlying works, violation of artists' moral rights, and the notion of "virtual trespass" disrupting institutional control.⁸⁶ Yet, as no litigation ensued, MoMAR's intervention exposed the practical and theoretical ambiguities of policing ephemeral AR art, deliberately layered atop, but never physically altering, pre-existing artworks. The event has become a touchstone in academic discussions regarding the boundaries of transformative use, audience participation, and institutional authority; it also illustrates how cultural institutions must grapple with new forms of digital expression that escape traditional mechanisms of censorship or exclusion. For emerging economies, where heritage and public art contexts face similar pressures, MoMAR's example provides critical

⁸⁵ 'Guerrilla Hacking the Art World: Legal Issues in Unsanctioned ...', *Center for Art Law* (n 81).

⁸⁶ 'Augmented Reality Is Transforming Museums - WIRED', *Wired* <https://www.wired.com/story/augmented-reality-art-museums/> accessed 18 July 2025.

empirical ground for questioning the adequacy of current statutory and jurisprudential approaches to AR overlays.

E. SNAP LENS CREATORS

The creator economy for Snapchat AR Lenses encapsulates the conflicting interests between platform innovation, creator rights, and user agency in the world of ephemeral digital art. Snap's Lens Studio has enabled creators globally to design effects that reach massive audiences and embed themselves into everyday smartphone-mediated expression.⁸⁷ Despite the creative potential, copyright enforcement and legal ownership remain clouded by restrictive licensing terms that frequently assign broad rights to Snap, with creators waiving most claims to compensation or control over commercial use. Reports of uncredited or commercial use of original lenses, sometimes by major brands or on television, have arisen, with affected creators lacking meaningful recourse for enforcement outside the app's walled ecosystem.⁸⁸ The legal ambiguity surrounding joint authorship, derivative use, and attribution is intensified by the fleeting, viral nature of AR content, as platform policies allow swift corporate response only in extreme cases.⁸⁹ In the absence of established legal mechanisms akin

⁸⁷ 'Snap AR: Build and Share Augmented Reality for Snapchat' (n 79).

⁸⁸ 'Copyrights of lenses on professional photo shoot', (*Snap Lens Studio Community*, 7 June 2021) <https://support.lensstudio.snapchat.com/hc/en-us/community/posts/360078177911-Copyrights-of-lenses-on-professional-photo-shoot> accessed 14 July 2025.

⁸⁹ 'Creating Augmented Reality Lenses for Every Use Case', (*Snap*, 17 September 2024) <https://forbusiness.snapchat.com/blog/simple-vs-sophisticated-lenses> accessed 14 July 2025.

to YouTube's content ID or revenue sharing for music, Snap's ecosystem highlights the continuing tension between technological democratisation and the preservation of individual creative rights.

F. DIGITAL GRAFFITI APPS

Digital graffiti AR applications have revolutionised public art, enabling users to “spray” ephemeral, virtual graffiti onto buildings or urban spaces, visible only to others using the same app. The copyright implications are substantial, as such works typically lack fixation and are deliberately designed for transience. Scholarly and judicial commentary in the United States suggests that even illegal physical graffiti may enjoy copyright protection if it satisfies the tests of originality and fixation.⁹⁰ Nevertheless, digital graffiti that exists purely in virtual overlays must overcome even stricter thresholds; proof of fixation, authorship, and the boundaries of derivative creation are all complicated by collaborative or algorithmically generated content. In the Indian context, the protection of street art and graffiti remains inchoate, with statutory and case law providing no direct guidance on whether digital or ephemeral urban art can attract copyright.⁹¹ Moreover, the overlay of AR graffiti on heritage or protected sites

⁹⁰ ‘Protecting Artistic Vandalism: Graffiti and Copyright Law’, (*JIPEL*, 2 March 2019) <https://jipel.law.nyu.edu/vol-2-no-2-2-lerman/> accessed 14 July 2025.

⁹¹ ‘Article: Whether Street Art & Graffiti Can Be Protected As Artistic Works under Indian Copyright Law’, ALG India <https://www.algindia.com/article-whether-street-art-graffiti-can-be-protected-as-artistic-works-under-indian-copyright-law/> accessed 13 July 2025.

raises issues under cultural property and monument protection statutes, multiplying the axes of legal uncertainty.

G. Niantic's LIGHTSHIP AR

Niantic's Lightship AR platform epitomises the emergent dilemmas of intermediary liability in persistent, geolocated AR. Lightship enables the creation of persistent digital experiences and data overlays fixed to real-world locations, blurring boundaries between digital and physical presence. Niantic's business and developer terms highlight a model whereby the developer or creator retains primary liability for IP infringement or unlawful use, while Niantic reserves extensive rights to enforce against misuse and arbitrate disputes.⁹² The privacy and IP risks, especially those concerning personal data and unlicensed overlays, trigger responsibilities for both platforms and creators to comply not only with copyright laws but also with broader data protection and proprietary obligations.⁹³ As spatial AR becomes ubiquitous in urban and heritage contexts, and as more governments and users call for responsive regulation, platforms like Niantic increasingly pre-emptively implement robust takedown, notice, and opt-out processes. However, the lack of mature, AR-specific norms, either in India or globally, continues to leave significant uncertainties

⁹² 'Niantic Spatial Platform Business and Developer Terms of Service ...', (*Niantic*, 29 May 2025) <https://www.nianticspatial.com/en/terms-business> accessed 13 July 2025.

⁹³ 'ARDK and Data Privacy | Niantic Spatial Platform', Niantic https://lightship.dev/docs/ardk/data_privacy/ accessed 13 July 2025.

regarding the enforceability, protection, and liability for ephemeral AR overlays tied to public and private space.

VIII. THE WAY FORWARD

India stands at a crossroads, either let outdated laws leave AR artists in the shadows, or move boldly to redefine copyright for a digital, creative future. The current framework, with its fixation on permanence and tangibility, is failing an entire generation of creators who are propelling India's cultural identity into the augmented realm. If we persist with an analogue-era mindset, we risk turning our backs on remarkable talent, stifling innovation, and marginalising digital voices central to our contemporary heritage.

A. DOCUMENTING THE UNDOCUMENTED: RECOMMENDATIONS AND SUGGESTIONS FOR LEGISLATIVE REFORMS

As fleeting as a sand drawing or a street performance may be, documentation transforms these ephemeral works into protectable assets under copyright law. By capturing impermanent art through photos, videos, or written records, both artists and institutions build the evidentiary foundation for asserting ownership and authorship. Below are the key recommendations and suggestions for safeguarding the rights of creators working in ephemeral art forms:

- a) *Creating a participatory framework for AR art ecosystem*

Legislative reform in this area cannot succeed without clear statutory guidelines for platforms and intermediaries hosting AR content. The government should convene a permanent advisory forum reflecting the perspectives of creators, software and platform developers, property stakeholders, cultural institutions, legal experts, and the public. The participatory framework should draw in not only creators and platform operators but also audiences and property stakeholders, setting requirements for public consultation and industry support.

Continued support for public-private partnerships should be encouraged to underwrite the cost of documentation, digital archiving, and educational initiatives. Creators must be equipped with clear, accessible information and capacity-building support to understand and assert their evolving rights. Platforms hosting AR content require regulatory guidance on intermediary liability and proactive takedown and notification obligations, concerning ephemeral works that may escape traditional ex post remedies.

Community input, especially from audiences and users who interact with AR art, should be incorporated to ensure a responsive and ethically grounded policy environment. Finally, international collaboration is indispensable; India should learn from and contribute to best practices globally, through participation in relevant IP and cultural heritage forums

b) *Expand definitions and reform fixation standards*

As AR art increasingly flourishes in experiential and location-tethered environments, it is evident that statutory language must move beyond material fixation to embrace digital, virtual, and ephemeral works substantiated by secure metadata or digital records. The paper suggests an amendment of s2 of the 1957 Act to include a category for “*Digital and Time-Based Works*,” explicitly stating that records such as codebases, geotagged event data, and dynamic metadata can ground legal protection, provided that such data is time-stamped and authenticated at the point of creation or exhibition. This expansion is necessary to support the commercial exploitation of ephemeral AR art, as these legal definitions create a certain certainty for licensing, monetisation, and the secondary use being unlocking economic opportunity for creators in a digital marketplace.

c) *Registry for time-based and location-based digital works*

Legislation should establish a central registry for time-based, location-based digital works, accepting deposits of source code, captures, metadata, and geolocational data. This paper suggests such a system must be underpinned by enforceable technological standards, authenticated metadata protocols, blockchain provenance, and secure timestamping, to overcome fixation challenges and establish digital evidence. These records would serve as a credible proof for creative rights, bridging the gap between intangible works and the evidentiary needs of copyright enforcement. The registry should be designed to robustly support the certification of authorship, thorough documentation of collaborative contributions, and secure long-term

archival of all pertinent technical and contextual materials of the ephemeral art.

d) *Establish guidelines in cultural and public spaces*

Specific guidance should be set for the exhibition and preservation of AR art in protected cultural, historical, and public settings to ensure cultural sensitivity when the AR art overlays the indigenous or historical sites. India should institute a clear system for the clearance, documentation, curation, and enforcement of ephemeral AR installations in such environments.

The paper underscores the need for a process which requires taking prior permission from heritage authorities such as the Archaeological Survey of India, establishing technical and content standards that protect cultural dignity and historical value, and incorporating stringent archival mandates within the central digital registry.

e) *Shared spaces*

Property law must be harmonised with copyright so that neither domain is unduly privileged at the expense of innovation or communal life. The paper recommends that legislation should devise notice-and-consent protocols for digital overlays affixed to private or regulated property, delineating minimum standards for seeking, granting, or refusing permission to augment physical spaces with AR.

Where AR installations occur in genuinely public spaces, the regulatory framework could follow a model of limited public trust, empowering municipal authorities to issue guidelines, approve displays, and enforce limits against offensive or hazardous content, while simultaneously safeguarding creators' rights to attribution and integrity

f) *Recognise layered authorship*

One of the most pressing conceptual reforms concerns the management of authorship and moral rights in the collective, participatory, and at times algorithmically determined environment of AR art. It is proposed that the Parliament should adopt explicit provisions to recognise layered authorship, encompassing not just primary creators but users who provide substantial creative input, as well as coders and designers of foundational algorithms. Such recognition is essential given AR's participatory character. Public engagement and co-creation are intrinsic to many AR experiences, rendering traditional sole authorship frameworks obsolete.

These legal provisions must therefore clarify the requirements for joint, co- and collective authorship, enable contractual or statutory allocation of shares (including recognition of contributory rights for AI or non-human agents where appropriate), and provide procedural guidelines for the resolution of authorship disputes. The guideline must define the rights of anonymised or pseudonymous contributors, protecting the interests of all creative collaborators while enabling efficient licensing

and effective commercial exploitation of digital AR works in the copyright ecosystem.

IX. CONCLUSION

The advent of AR as a new medium for artistic production poses fundamental challenges to conventional models of copyright law. The ephemerality, site-specificity, and interactivity of AR art make it difficult to distinguish between the concrete and intangible, obscuring fixation, authorship, and infringement. Because these virtual works occupy more and more common spaces which are usually overlaid invisibly above public or private property, they challenge a system of law based upon materiality and fixity.

Existing copyright laws were not conceived to treat art that is only accessible through certain technology, which can be erased with the killing of a server or app update, or which can be altered or remixed by users in real time. Such constraints reveal an increasingly widening gap between legal protection and creative innovation. Without careful reform or fresh interpretations of law, AR artists would be left unprotected, and platforms and users would still be unclear about responsibilities and rights.

Ultimately, AR art forces us to reconsider what it means to make, to own, and to conserve art in an age where frames become obsolete as fast as they exist. Navigating this changing landscape will not only

demand changes in legal doctrine but also interdisciplinary conversation between artists, technologists, legal scholars, and policymakers. Only through such collaboration can the law keep pace with the ephemeral radiance of augmented creativity.

But there is still time to lead. The paper proposed reforms, expanding legal definitions for digital and time-based works, recognising new models of collaborative and algorithmic authorship, and establishing a robust registry anchored by modern digital rights management, then it would not only close the gap with global leaders like the US and EU but set new benchmarks for how to protect and empower creators in the age of ephemeral AR art. These changes would catalyse the smooth and confident licensing, commercial growth, and preservation of India's AR art sector. The choice is clear, and India can secure a vibrant, globally relevant future for its creative ecosystems, ensuring that no innovator is left behind in a rapidly evolving world.

The recommendations and suggestions are based on the recognition that ephemeral AR works, though not fixated, can be substantiated by durable artefacts, which include codes, sensor data and metadata. The legislative acknowledgement would affirm that fixations don't have to be synonymous solely with the physical or permanent storage, thereby fostering a way for a future-proofed IP regime for India's burgeoning digital artistic economy.

Ephemeral augmented reality art both enriches and unsettles India's artistic and legal landscapes. Its unique characteristics, namely, impermanence, spatial specificity, interactivity, and distributed authorship, expose the limitations of an IP regime anchored in fixation, materiality, and singular creativity. However, they also offer an unparalleled opportunity: to reconceive copyright law for the digital age, balancing the protection of creative expression with the dynamism and openness that new technologies enable.

Without progressive adaptation, Indian law risks marginalising a vibrant sector of contemporary culture and innovation, undermining creators' rights and economic potential. By embracing legislative modernisation, establishing robust registries and documentation protocols, fostering rights harmonisation, and nurturing stakeholder collaboration, India can shape a forward-looking legal framework that safeguards ephemeral AR art's integrity, incentivises creative experimentation, and integrates this transformative medium within its rich cultural heritage and future artistic economy. This evolution is not merely legal prudence but a necessary cultural investment, affirming India's position at the forefront of 21st-century creative expression in a globally connected world.