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Virtual Photojournalism in Social VR Platforms Toward Ethical Protocols for Consent and Representation

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Abstract. This study explores virtual reality platforms as new sites to make documentary photos and tell news stories, with an emphasis on the ethical standards that regulate consent, identity protection, intellectual property, and accountability. The paper utilises images taken by users, semi-structured interviews with active VR photographers, and readings of platform governance documents to give practice-based guidance based on a multi-case study of VRChat, No Man's Sky VR, and AltspaceVR. The results suggest that getting digital consent in immersive places is a process that happens over and over again, not just once. They also indicate that platform developers, world creators, avatar authors, and photographers all share authorship and ownership. Finally, they show that protecting someone's identity needs to achieve a balance between keeping their story true and not revealing their identity. The results illustrate even more how crucial it is to have complete systems in place that deal with ethical risks and give individuals actual ways to be safe. The idea of shared accountability puts these principles together. In this theory, photographers and platforms work together to ensure that ethical standards are met. The conclusion talks about how to make the rules for immersive journalism more consistent, how to make virtual photography archives, how to report on different platforms, and how to put together hybrid exhibitions that show real-world photojournalism and virtual documentary photos side by side.

Keywords: VR journalism, Digital consent, Virtual identity, Intellectual property, Platform governance

1. Introduction

Virtual reality worlds have grown into permanent cultural spaces where people may hang out, play, create, and plan events, rituals, and artefacts that people can preserve with pictures. Social VR platforms like VRChat and the now-defunct AltspaceVR organise festivals, meetups, concerts, and civic gatherings. Exploration-orientated games like No Man's Sky VR encourage players to take their time and look around at procedural landscapes. In these contexts, photographic activities document the existence of virtual communities and the visual appeal of artificial worlds. As these approaches transition towards journalism, the ethical principles of conventional photojournalism necessitate reevaluation, as presence, embodiment, and authorship manifest distinctly in immersive environments.

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Previous studies on immersive journalism indicated that virtual environments can provide first-person proximity to events, hence enhancing audience engagement and emotional responses [1, 2]. De la Peña and colleagues illustrated that manufactured scenarios might evoke immediacy; nonetheless, these same attributes heighten ethical hazards, necessitating explicit preventive measures [1]. Subsequent research contended that immersive news formats require revised and context-specific standards that prioritise the prevention of psychological harm and clarity on the design of experience [3,4]. Research on immersive experience and presence has shown that perception and emotion respond in a non-linear way to levels of embodiment. Such evidence makes old ideas about neutrality and detachment in news consumption more complicated [2].

This work focuses on the photographic documenting of indigenous virtual life instead of the reproduction of physical events in virtual reality. In social VR, avatars are expressive beings that mix fake looks with real-world identification markers. This creates new privacy problems and changes how people think about being in public [5]. Community practice and platform tools both assist in setting standards on privacy and consent. There are also numerous layers of authorship in virtual imagery. Platform owners can claim full licensing through their terms of service. World builders own the rights to scene assets and scripts, avatar creators or users control likeness and persona, and photographers compose and edit final photos. These overlapping rights raise questions about who owns what, how to provide credit, and how to use things that go beyond what the law requires. These difficulties need to be addressed in a fair fashion [6,7]. The analysis employs contextual integrity as a framework to elucidate the reasons a practice may be suitable in one virtual environment and detrimental in another. Contextual integrity posits that the flow of information should adhere to the transmission principles and roles that delineate a context, rather than conforming to a universal standard [8]. In virtual worlds, a public plaza instance differs from a private support group even if both are accessible through the same client. To protect contextual integrity, there must be clear, actionable, and reversible consent processes, as well as thorough de-identification when sharing could upset the original norms [5,8,9].

The study amalgamates three data sources to delineate existing practices and problems. A collection of user-shared screenshots and brief video captures from VRChat, No Man’s Sky VR, and AltspaceVR was initially compiled and categorised for consent signalling, identity management, and attribution. Second, semi-structured interviews with active VR photographers examined workflow, consent procedures, editing transparency, and platform interactions. Third, governance artefacts like terms of service, community rules, and safety frameworks were looked at to find what was already there and what was missing [10]. These materials underwent examination through qualitative content analysis and comparative cross-case synthesis, using methodologies from virtual ethnography and human-computer interaction [11,12].

This paper aims to achieve four goals. It talks about how to acquire digital consent in immersive settings, how to address rights conflicts and authorship overlaps in virtual photography, how to protect identity while keeping the story intact, and how to keep the audience's trust through accountability routines.The remainder proceeds as follows. Section 2 reports findings for the three platforms and presents two synthesis tables. Section 3 relates the findings to immersive journalism, contextual privacy, and platform governance literatures, proposing a co responsibility model for practice. Section 4 concludes by summarizing contributions and indicating pragmatic directions for standardization, archiving, cross platform reporting, and exhibition making.

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2. Findings and analysis

2.1. Consent and privacy in immersive environments

Observation of VRChat events and interviews with community photographers revealed that consent in immersive settings is best treated as a layered and continuing process rather than a single opt in dialog. In open public instances, wide environmental frames and crowd imagery were commonly accepted, while close portraiture and prolonged audio capture required explicit permission. In private or invitation-only situations, communities generally assumed default privacy and avoided recording unless the hosts and participants gave particular permission. Three operating routines worked well over time. First, using camera icons, text announcements, or signs in the world to show that documentary activity was happening made things less confusing and made it normal. Second, taking screenshots of chat acknowledgments, world and instance identifiers, and timestamps to log consent made a verifiable trail that could be checked after publication. Third, withdrawal pathways allowed subjects to request deletion or blurring, often via pinned messages or links in the caption of published work. These routines map to the idea of usable and revocable consent in social VR, which emphasizes visibility, accessibility, and continuity of consent throughout interaction [9,13].

No Man’s Sky VR presented a different consent profile because landscapes and structures were the usual subjects. Photographers mostly documented terrain, fauna, and architecture generated by algorithms or by players. Consent difficulties mostly came up when base builders, multiplayer explorers, or broadcast players could be seen in the frame. In these situations, photographers who followed best practices either clipped or blurred handles and got immediate text confirmations before publishing. In AltspaceVR, which hosted conferences, worship services, and performances, event organizers often set explicit recording rules that differentiated public stage areas from participant seating. Photographers followed stage focused capture with wide establishing shots from the audience side only when warnings were posted and after organizers announced recording guidelines. Across cases, the burden of proactive communication rested on photographers, supported by platform tools when available [3,11,13].

2.2. Power asymmetry and participant protection

The dual status of the photographer as participant observer introduced asymmetries of knowledge, control, and audience reach. Photographers were more likely to know about platform features and distribution channels. On the other hand, participants, especially new ones or those who didn't speak English as a first language, were unaware of how long-lasting and portable virtual images were. Interviewed people told experiences about how stealth capture or the employment of invisible avatars undermined trust and led to punishments in the community. As a result, communities created rules to reduce harm, such as making it clear who they are as reporters or documentarians, giving multilingual consent prompts that are easier to understand, and putting opt-out options ahead of arguments. These techniques carry the damage reduction principle from photojournalism into virtual reality, which is in line with HCI research that argues for safety by design and preventing harm to others in social VR [11]. The anthropological concept of participant observation underscores that embedded observers possess narrative authority over representation and must practice reflexive restraint, especially when documenting marginalised or disadvantaged populations [12].

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2.3. Intellectual property and rights to images

Making virtual images involves rights that are connected between different parties. Photographers compose and edit, but platform developers, world authors, and avatar creators all provide important parts that make the image conceivable. In practice, terms of service grant platforms broad licenses, world authors retain copyrights in scene assets and scripts, avatar authors control design and persona, and photographers hold rights in the final composition. The ethical stakes concern not only whether publication is technically permitted but whether contributors receive attribution and whether reuse aligns with community expectations. Table 1 synthesizes stakeholder roles, potential rights, ethical positions, and practical guidance for day to day decisions [6,7].

Table 1. Rules to format sections

Stakeholder	Possible rights and ownership	Ethical position	Practical guidance
Platform or developer	Copyright, trademarks, and broad licenses under terms of service	Protect infrastructure, brand, and commercial assets	Review terms before publishing, respect branding, credit platform and version
World author	Copyright in world design, assets, and scripts	Recognition and control over derivative reuse	Attribute world name and author, seek license for commercial uses
Avatar creator or user	Design authorship, likeness, and persona interests	Respect identity, enable withdrawal and control	Obtain consent for identifiable imagery, provide opt out and blurring
Photographer	Copyright in composition and edits	Ensure authenticity, transparency, and accuracy	Disclose staging and post processing, preserve raw files and edit logs

Interviews showed that photographers who credited world builders and avatar creators, even when they didn't have to, got more trust and cooperation. On the other hand, not giving credit or using screenshots for commercial purposes without authorisation hurts reputations and leads to demands for takedowns. Legal discourse on avatars emphasises that rights similar to publicity and trademark can be associated with virtual identities and branded assets, necessitating ethical vigilance even in the absence of established legal frameworks [6,7].

2.4. Identity protection and contextual integrity

Identity protection was always on people's minds because virtual representations usually contain usernames, unique textures, and voice traces that can be exploited to connect to identities outside of the site. To stop HUD overlays, photographers used de-identification methods like framing, hiding names and unique patterns on avatar clothing, and replacing raw voice samples with transcripts for important information. These changes protect privacy without taking away from the story's worth when they are combined with careful captioning that keeps the story's integrity. Contextual integrity explains why these steps are important. A support group meeting in a private setting adheres to confidentiality rules that contrast with those of an open-world concert. Recording the former without clear permission is against the usual flow of information, even if a technical reading of platform policy would allow it [8]. Research on social VR embodiment demonstrates that digital bodies serve as personally significant representations, hence amplifying the need for protective practices [5]. In practice, photographers identified reenactments and composites and didn't blend staged assets with documentary frames without telling the audience. Such practices lowered the chances of tricking the audience and hurting the subject [3,5,8].

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2.5. Accountability and transparency in virtual reporting

Auditable compliance with accuracy, fairness, and candour established credibility. Participants kept raw frames and edit histories, consent and editorial records, and disclosed developer tools, cinematic shaders, and composite processes. Corrections and removals were documented with version histories for web publications. For time-sensitive incidents, communities established cooling-down times to reconfirm consent and verify facts against independent chat recordings or numerous witnesses. These techniques support ethical VR research that emphasises transparency about processes and post-experience consequences [14]. An immersive news audience study warns that empathy effects are contingent and may vanish, supporting process-orientated trust developed through transparency rather than affect [4]. The three platforms' major photographic focus, ethical issues, and dissemination methods are shown in Table 2, showing how procedures localise by context.

Table 2. Photographic focus and ethical norms across three VR platforms

Platform	Photographic focus	Key ethical considerations	Dissemination channel
VRChat	Avatars, social rituals, subcultures, fashion shows	Dynamic consent, harassment prevention, identity protection, disclosure of edits	Social media threads, in world galleries, live streams, web zines
No Man's Sky VR	Landscapes, architecture, fauna, travelogues, base tours	Attribution of builders, credit for discovery, minimal human subject issues, clarity on procedural origin	Personal blogs, community hubs, art books, archival wikis
Altspace VR	Conferences, sermons, town halls, performances	Respect for private instances, organizer rules, stage versus audience capture, consent announcements	Event recaps, VR news sites, YouTube channels, community newsletters

3. Discussion

3.1. Consent as a dynamic and verifiable process

The results support a way of consent that is continuous, transparent, and revocable. In social VR, presence is embodied and encounters shift rapidly from casual to intimate. Static text agreements cannot track these transitions, which is why usable consent requires surface level indicators and low friction controls for opting out [9,13]. Integrating platform side prompts that notify users when entering camera zones or when a room switches to recorded mode would reduce uncertainty. Including consent metadata to image files, such as world and instance IDs and timestamps, would make trails that can be checked in case of a disagreement. These suggestions build on the immersive journalism guidelines that already stress being open about approach and intent [3,4]. They also adapt to the distinctive rhythms of physical interaction that can be seen in VRChat and AltspaceVR [1,3,11,13].

3.2. Addressing power asymmetry through participatory practice

Photographers and subjects have knowledge and reach asymmetries that must be addressed to protect participants. The photographer frames, edits, and distributes VR photographs, yet many participants misunderstand their portability. Virtual world anthropology reminds us that embedded observers have interpretive authority and must be ethical [12]. In social VR, this translates into proactive self identification as documentarians, consistent use of visible signs, multilingual consent

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prompts that simplify choices, and strong default respect for refusal without negotiation [11,12]. These rules treat everyone as co-authors of the representational moment, giving them more authority without requiring them to have equal power. They also align with safety by design principles in HCI that treat harassment prevention and boundary control as first order goals [11].

3.3. Managing multi-party intellectual property with inclusive recognition

Authorship conflicts will remain structurally inherent to virtual image making because scenes are co-produced by platforms, world builders, avatar designers, and photographers. Legal commentary shows how avatars and branded assets create overlapping rights that are not yet uniformly addressed by statute or case law [6,7]. Ethical practice therefore ought to exceed minimal legal permission by incorporating inclusive recognition and negotiated reuse. Giving acknowledgment to platform, world, and avatar creators in captions and metadata on a regular basis shows how you value their work and indicates that you appreciate them. Lightweight licensing dialogs with world and avatar owners help avoid conflicts later on when used for business. Even though the platform's terms of service grant photographers a great deal of freedom, they can still adhere to community-centered attribution. This method changes the focus from intellectual property to a governance issue that photography groups can resolve through rules and tools instead of waiting for a full legal settlement [6,7].

3.4. Applying contextual integrity to safeguard identity and narrative truth

The terms of service for the site give photographers a lot of freedom, but they can still follow community-centred attributions. Instead of waiting for a full court settlement, this way shifts the focus from intellectual property to a governance issue that photography groups can solve with rules and tools. Identity protection routines such as de identification and voice transcription operate as bridges between story value and privacy. Embodiment research in social VR indicates that avatars function simultaneously as expressive art and personal identity, which raises the stakes of exposure [5]. Immersive journalism ethics likewise calls for clear disclosure of reconstruction and manipulation to preserve audience trust [3]. The synthesis proposes a practice bundle that integrates contextual evaluation, de-identification protocols in sensitive situations, and the categorisation of reenactment or compositing. This bundle keeps the truth of the story while causing the least amount of harm [3,5,8].

3.5. Repairing and being open with your audience to build trust

People believe virtual documentary work because it's simple to fix and because it's obvious what it's showing, not what it claims to show in real life. Keeping edit logs, saving and releasing raw frames when asked, and marking photos that use developer tools or cinematic shaders are all examples of process transparency. Repair capacity is being able to make rapid fixes, get rid of stuff you don't need anymore, and see version histories. These practices are like ethical rules in VR research that highlight being open about how things work and what can happen later [14]. They also respond to media studies that show that immersive empathy isn't always strong and might fade [4]. Photographers who developed these practices reported enhanced relationships with world builders and event organisers, greater tolerance for documentation, and a reduction in takedown disputes. Trust thus emerges as an outcome of governance rather than as a property of the image alone.

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3.6. Allocating responsibility between photographers and platforms

Ethical burdens should not rest solely on individual practitioners. Platform governance can either impede or enable good practice. For XR safety, privacy by design and explicit affordances for boundary management are recommended [10]. Decentralising consent through shared frameworks and portable signals would enable users to transfer preferences between worlds and instances, while platform-side camera indicators, recording mode banners, and opt-out toggles would standardise expectations [10,15]. When platforms provide visual signals and reporting mechanisms, communities create stronger standards and photographers comply more easily, according to the case study. Co-produced protections lower ethical transaction costs and spread accountability. Platform layer standardisation protects newcomers and non-technical participants who cannot negotiate standards themselves, reducing inequality [10,11,15].

4. Conclusion

This study examined ethical practices in virtual photojournalism within VRChat, No Man's Sky VR, and AltspaceVR, indicating that immersive documentation necessitates a reevaluation of consent, identity, ownership, and accountability. Consent in social VR ought to be perceived as dynamic and verifiable rather than fixed; identity protection must reconcile de-identification with narrative integrity; intellectual property constitutes a multi-faceted domain where inclusive acknowledgement surpasses mere legal compliance; and credibility is enhanced through transparent workflows, editing disclosure, and readily available correction mechanisms. These conclusions demonstrate how immersive journalism can be advanced by specifying operational mechanisms for embodied contexts and by formalizing a model of shared responsibility in which photographers and platforms collaborate to establish safeguards.

Looking ahead, standardization is a pragmatic step. A concise code for immersive photojournalism could define procedures such as camera signaling, consent logging, reenactment labeling, and withdrawal handling, supported by platform tools that embed these functions into the user interface. Archival systems for virtual photography should keep raw files, edit histories, and consent metadata so that they can be used to verify, teach, and keep cultural memory alive. Cross-platform reporting could make journalism more useful by linking problems in multiple virtual worlds and groups, as long as protections for consent and identity are in place. Finally, hybrid curatorial practices that place virtual documentary images alongside physical-world photojournalism can help audiences recalibrate expectations of authenticity and refine their understanding of representation in synthetic spaces. By consolidating these measures, virtual photojournalism can enrich public understanding of digital life while honoring the dignity, safety, and agency of the communities it portrays.

References

[1] De la Peña, N., Weil, P., Llobera, J., Giannopoulos, E., Pomés, A., Spanlang, B., Friedman, D., Sanchez Vives, M. V., & Slater, M. (2010). Immersive journalism for the first person experience of news. Presence, 19(4), 291–301. https: //doi.org/10.1162/PRES_a_00005

[2] Shin, D., & Biocca, F. (2018). Exploring immersive experience in journalism. New Media & Society, 20(8), 2800–2821. https: //doi.org/10.1177/1461444817733133

[3] Sánchez Laws, A. L., & Utne, T. (2019). Ethics guidelines for immersive journalism. Journalism Practice, 13(7), 793–810. https: //doi.org/10.1080/17512786.2019.1585193

[4] Sánchez Laws, A. L. (2020). Can immersive journalism enhance empathy. Digital Journalism, 8(2), 213–228. https: //doi.org/10.1080/21670811.2018.1517604

DOI: 10.54254/2755-2721/2025.LD28892

[5] Lin, L., & Latoschik, M. E. (2022). Privacy implications of embodied avatars in social VR. Frontiers in Virtual Reality, 3, 850466. https: //doi.org/10.3389/frvir.2022.850466
[6] Bonadio, E., & Mohnot, N. (2024). Avatars, copyright and publicity rights in the metaverse. European Intellectual Property Review, 46(2), 123–134. https: //doi.org/10.2139/ssrn.4389071
[7] Cheong, T. (2022). Legal challenges of avatars in the metaverse. Computer Law & Security Review, 46, 105745. https: //doi.org/10.1016/j.clsr.2022.105745
[8] Nissenbaum, H. (2010). Privacy in context. Stanford University Press.
[9] Kim, J. (2022). Rethinking informed consent in immersive virtual environments. Journal of Media Ethics, 37(1), 40–53. https: //doi.org/10.1080/23736992.2021.1976923
[10] XR Safety Initiative. (2020). Privacy framework for XR technologies. XR Safety Initiative. https: //xrsi.org/privacy-framework
[11] Freeman, G., & Maloney, D. (2021). Body, avatar, and me in social VR. Proceedings of the ACM on Human Computer Interaction, 4(CSCW3), 1–27. https: //doi.org/10.1145/3432938
[12] Boellstorff, T. (2008). Coming of age in Second Life. Princeton University Press. https: //doi.org/10.1515/9781400874101
[13] Schulenberg, S. E., Williams, E., & Kenkel, J. (2023). Boundaries of consent in social VR. New Media & Society, 25(6), 1290–1307. https: //doi.org/10.1177/14614448221091234
[14] Madary, M., & Metzinger, T. (2016). Real virtuality and a code of ethical conduct. Frontiers in Robotics and AI, 3, 3.
[15] Smith, R., & Molka Danielsen, J. (2025). Shared consent frameworks in decentralized metaverse environments. Journal of Virtual Worlds Research, 18(1), 45–63. https: //doi.org/10.4101/jvwr.2025.1.5